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Issued January 2, 1913.

U. S. DEPARTMENT OF AGRICULTURE,  
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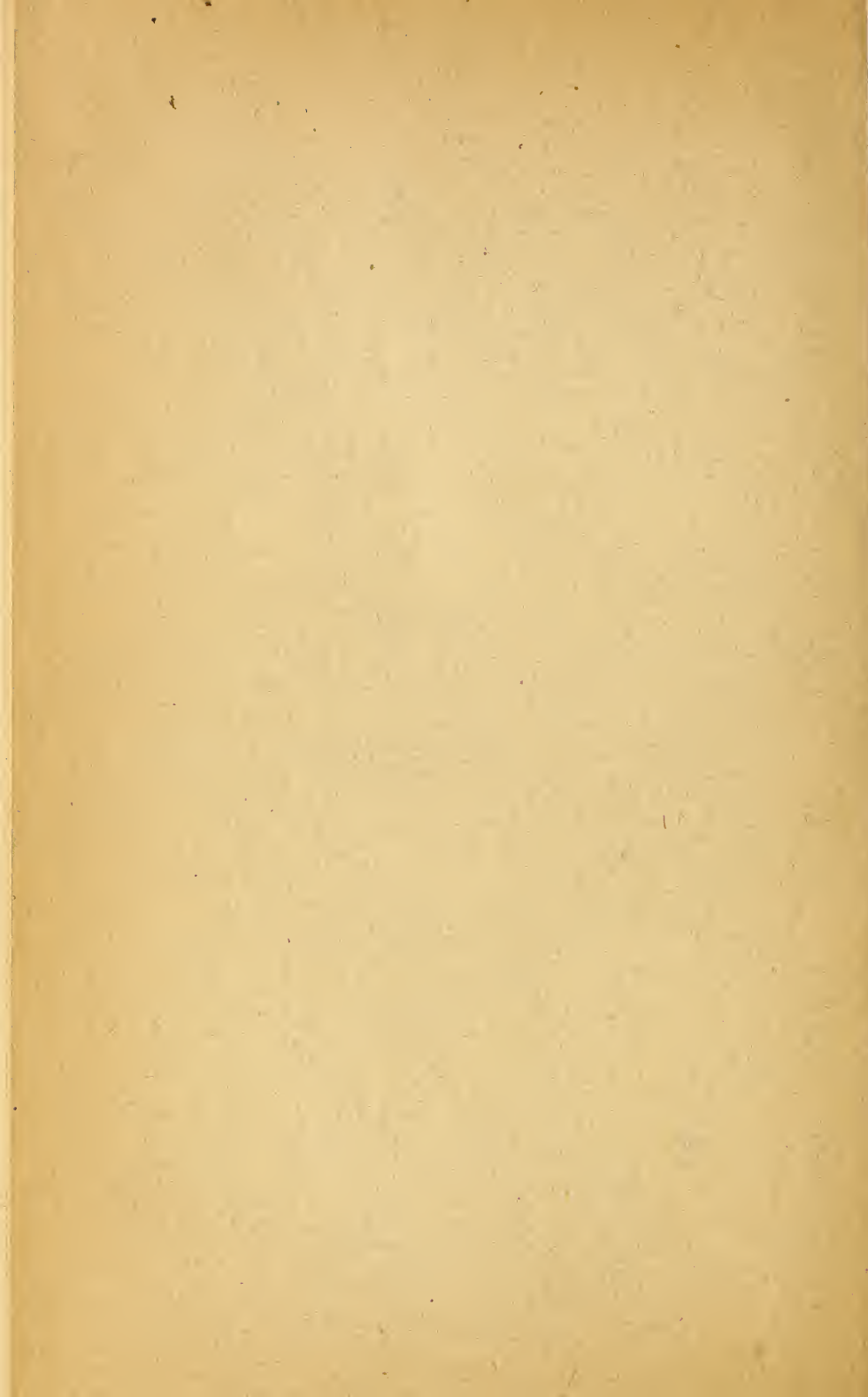
SYSTEMS OF MARKETING FARM PRODUCTS  
AND DEMAND FOR SUCH PRODUCTS  
AT TRADE CENTERS:

PREPARED IN THE BUREAU OF STATISTICS UNDER THE IMMEDIATE  
SUPERVISION OF

GEORGE K. HOLMES,  
STATISTICAL SCIENTIST.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
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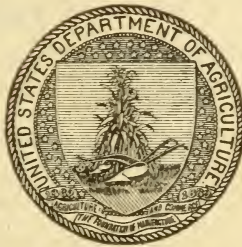
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UNITED STATES DEPARTMENT OF AGRICULTURE,  
OFFICE OF THE SECRETARY,  
*Washington, D. C., December 26, 1912.*

The accompanying report concerning systems of marketing farm products and the demand for such products at trade centers has been prepared in response to the requirements of the following provision in the act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1913:

And that the Secretary of Agriculture be and he is hereby directed to secure from the various branches of the department having authority to investigate such matters, reports relative to systems of marketing farm products, cooperative or otherwise, in practice in various sections of the United States, and the demand for such products in various trade centers, and shall make such recommendations to Congress relative to further investigations of these questions and the dissemination of such information as he shall deem necessary.

This report has been prepared in the Bureau of Statistics, under the immediate supervision of Mr. George K. Holmes, statistical scientist, with the assistance and cooperation of experts, specialists, etc., from other branches of the department who had available data with regard to the subject. The report is accompanied by recommendations which are respectfully submitted for the consideration of Congress.

JAMES WILSON, *Secretary.*

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# SYSTEMS OF MARKETING FARM PRODUCTS AND DEMAND FOR SUCH PRODUCTS AT TRADE CENTERS.

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## REVIEW.

### SUMMARY OF METHODS OF DISTRIBUTION.

#### SOURCES OF INFORMATION.

From three general sources the information contained in this report was obtained. First, there is a group of articles devoted to the systems of marketing many farm products, including grains, many of the vegetables and fruits, and many other articles whose production is of appreciable amount. The list includes not only plant products, but also the products of the dairy and live stock.

The articles for these products were all written by employees of the department who are specialists in the particular subjects handled by them and who have obtained their information in a large degree in the course of traveling throughout the country, and to some extent information has been obtained by them by correspondence.

In the preparation of these articles the endeavor has been made to avoid an undue amount of detail, but rather to describe the skeleton of the systems of marketing. The writers have contributed in the aggregate a vast amount of information concerning the systems of marketing farm products, much of which has hitherto been unpublished, or certainly not published in comprehensive form.

A second group of articles concerning systems of marketing is composed of reports of producers' cooperative marketing associations and of noncooperative marketing agencies. The managers of many associations and agencies were requested to contribute descriptions of their systems of doing business, for inclusion in this report, and articles were received from 66 of them.

These cooperative associations and noncooperative agencies include many of the most prominent ones of this country, and all are favorably known to the public as well as by the trade interests with which they come in contact. The report of each association and agency is an object lesson in itself, since it is a story of practical accomplishment in marketing one or more products of the farm. The experience of these associations and agencies clearly indicates some of the lines of service that may be well pursued by a Division of Markets, and their experience also indicates what should be avoided.

A third group of statements bears upon the demand for farm products at trade centers. No money was appropriated for paying the expense of preparing this report, and consequently it was compulsory that the part of the report concerned with demand at trade centers should be confined to such information as could be found in print. For many years boards of trade, chambers of commerce, and com-

mercial papers have ascertained and published the quantities of the receipts of many farm products in specified cities, and have also ascertained and published the quantities of the shipments of the same commodities out of these cities.

The Bureau of Foreign and Domestic Commerce of the Department of Commerce and Labor originated a monthly report on the movements of internal commerce, and the reports of that bureau have been utilized in a large degree in the preparation of the tables of this report that exhibit receipts and shipments of farm products at trade centers.

Upon referring to the matter of the three groups of information mentioned above, it will be observed that the first group, containing articles prepared by specialists of the Department of Agriculture, covers most of the products of the farm; that the second group embraces the reports from marketing associations and agencies, and contains information concerning experience in marketing, confined mostly to vegetables, fruits, and berries; and that the third group, relating to the commercial movement and local consumption of farm products, includes a great variety of products, almost coextensive with those treated in the first group of articles. All parts of the country are well represented in the mass of information herewith presented and all systems of marketing are described.

#### COURSE OF MOVEMENT OF PRODUCTS FROM THE FARM.

The simplest system of marketing is that in which a producer sells directly to the consumer or to unassociated consumers. There is a ring around each city and town in which may be found agricultural producers who come directly into contact with consumers in the sale of products. The producer delivers in his own wagon.

If there were cooperative associations of consumers in cities and towns the delivery by the farmer directly to them would be more simple than his present deliveries to consumers individually.

#### TRAVELING BUYERS.

Distribution of farm products between producer and consumer has many variations of system.

Selling to buyers who come to the farm is practiced in some degree in many parts of the United States. Traveling hucksters in many regions go from farm to farm gathering eggs, butter, poultry, calves, and similar commodities, which they sell to shippers, jobbers, or retail dealers. Agents of large merchants go to farms on the Pacific coast to buy hops, to ranges in the Rocky Mountains for wool, to plantations in Louisiana and southeastern Texas to bargain for rice, and to the orchards of the apple-producing States east of the Rocky Mountains. The cattle buyer also is a frequent visitor at many farms, especially where stock raising is a secondary industry.

#### GENERAL MERCHANTS.

One of the most important persons in the distribution of some products is the merchant of the town or the rural community. He is often the first receiver of such products as eggs, farm-made butter,

poultry, wool, hides, and sometimes cotton, grain, and hay. It is the custom, less so than formerly, for a local merchant to credit a planter of cotton or rice, or his tenants, with supplies for a crop year and to take a lien upon a growing crop to cover the value of the merchandise thus sold. In such a case it is frequently the practice that the crop, when ready for market, is turned over to the merchant by the planter or tenant, who receives the difference between his debt and the proceeds from the crop. The importance of the country merchant as a distributing factor in some regions is diminishing, for he has been supplanted to a greater or less degree by dealers in special products.

#### LOCAL BUYERS OF SPECIAL PRODUCTS.

In the regions where grain is the staple product the tendency has been for the storekeeper to be displaced by the grain dealer and the local elevator man. Among other examples of local buyers of special produce are the California fruit packer, who buys from growers; the egg and poultry shipper in the Middle West, whose purchases are made from country merchants and who ships by carload lots to wholesale dealers; the San Francisco (Cal.) wool merchant, who buys on the range and sells in the East; the poultry packer in the North Central States, who buys live fowls, slaughters them, and consigns to eastern cities; and the "track buyers" of watermelons in the region near San Antonio, Tex., of peaches in Georgia, and of hogs in the corn belt.

#### COMMISSION DEALERS.

The individual farmer who ships his products by rail or water to a market and does not sell directly to consumers must sell through, or to, middlemen. They commonly sell through commission merchants, but to some extent sell directly to wholesale dealers, and, also, to retail dealers. The results to the farmer of selling through middlemen are both good and bad.

The farmer who employs a trustworthy commission merchant who will handle his products honestly and honorably will get the current prices for them within the range of the commission merchant's business, and, of course, the farmer must pay out of his gross receipts the costs of transportation from the farm to the city, perhaps the cost of drayage, and also the commission of the merchant.

The story is by no means as favorable to the farmer as the assumed conditions mentioned imply. The farmer often finds himself in the hands of a commission merchant who falsely reports that the products were received in damaged condition, or that they were of a grade lower than they were in fact, or he reports receiving prices lower than those actually received by him for the goods. Worse than this, it is by no means rare that the commission merchant has sold the products and failed to return the net proceeds. So many untrustworthy commission merchants are found in the business that there is a general want of confidence by farmers in the whole business.

The commission dealer is the agent through whom a large amount of produce is sold for farmers or country shippers. He usually represents the seller, but there are instances where he serves as agent of



the buyer, as in some sales of live stock to distant buyers or in the purchase of Pacific coast hops for eastern dealers.

In addition to serving as agent in making a sale, a commission man may advance money to a producer or to a country buyer, as when a live-stock commission firm loans money to feeders or when a grain-commission firm supplies a local grain dealer with sufficient cash to begin his season's purchases. Another phase of commission dealing is that engaged in by rice and cotton factors, who advance money on crop liens, and to whom these products are frequently consigned to be sold on commission. In some States, for instance, in South Carolina, banks are reported to be taking the place of the cotton factor in making loans, and the presence of buyers and neighboring mills enables planters sometimes to market their cotton without the aid of factors. Another class of factors are those in the Baltimore tobacco trade, who receive consignments, for instance, from farmers in Maryland and Ohio, and who sell to exporters.

#### DIRECT SALES WITHOUT AID OF MIDDLEMEN.

Common instances of the producer's selling direct and delivering to the door of the consumer occur in the marketing of milk, butter, eggs, poultry, fruits, vegetables, hay, and other farm products. Milk producers in the neighborhood of Erie, Pa., through their organization, deliver milk direct to consumers. Numerous poultry raisers sell exhibition stock direct to other poultry raisers. Eggs for hatching are also sold in this way. Registered cattle are often sold at auctions, held periodically by the owners. Retail sales of fruit, vegetables, poultry, eggs, and dairy products direct by producer to consumer are made also in public market places.

In a sense, a mill or a factory may be regarded as a consumer. An old instance of the producer's selling in wholesale lots direct to the consumer is that of the farmer taking his grain to a near-by mill. A sale of sugar beets to a neighboring factory is another example of direct bargaining between producer and consumer; so is the sale and delivery of milk to a creamery, apples to an evaporating establishment, and fruits and vegetables to neighboring canning houses.

Selling at wholesale direct to consumers is illustrated also by a plan recently adopted by wool growers of the northern Rocky Mountain region. Large warehouses are established at Chicago, Ill., and Omaha, Nebr., to which wool is consigned to be sold by the growers or their representatives. Manufacturers as well as dealers are among the buyers, so that part of the sales are made direct by the growers or their agents to consumers. Not only are direct sales by producer to manufacturer made in the warehouses, but on the range itself, for, since the establishment of warehouses, manufacturers and dealers have continued to send some of their buyers to the range.

One of the prominent wool growers of Wyoming reports that since the establishment of the large warehouses, prices on the range have been much better. For the sake of supporting the warehouses the stockholders agree to pay into the association a certain percentage of their gross sales of wool, whether sold on the range or in the warehouses. This method of supporting a cooperative institution is adopted also by the Georgia Fruit Growers' Exchange.

## TRANSFER THROUGH ONE MIDDLEMAN.

A large number of transactions are made in which only one middleman assists in the transfer from producer to consumer. A common example is that of a town merchant who buys produce from farmers and sells it to consumers.

Among the other instances of a single middleman intervening between producer and consumer may be noted the commission man at a large market who receives consignments of live stock from farmers and sells to packers; the factor to whom the planter consigns his rice or cotton and from whom purchases are often made by millers; the warehouseman who manages the sale of a Virginia planter's tobacco; and the "line" or system of elevators which buys grain from farmers and sells to millers. Pennsylvania tobacco is often bought at the farm by a dealer who sells to manufacturers.

It is common practice in a number of cities—for instance, New York, N. Y., Philadelphia, Pa., and Washington, D. C.—for milk to be handled by one middleman, namely, the city retailer, who buys direct from the producer. A considerable part of the supply of New York City is delivered at country shipping points to stations or "creameries" owned by New York dealers who sell in the city at retail.

An organization which brings the grain producer nearer the great mills is the farmers' elevator. The plan of its operation has some features similar to that of the wool warehouses of Chicago and Omaha. Farmers cooperate in building an elevator and in employing a manager.

## MARKETING THROUGH TWO MIDDLEMEN.

The intervention of two middlemen between producer and consumer is a common occurrence. The farmer may consign to a distant commission man or sell to a local dealer, and the next transaction of the series may be the sale to a retail merchant whose customers are consumers. A common way of marketing live stock is for the farmer to sell to a buyer who ships to a commission merchant at a large packing center, where the animals are sold frequently to packers. Fruits and vegetables are marketed often through the aid of two middlemen, the city commission dealer and the retail merchant. Two middlemen are involved also in some sales of produce made by farmers' cooperative societies; the first, unless the sales manager of a society be classed as a middleman, being the wholesale or the commission dealer, and the second the retail merchant.

The milk supply of Boston, Mass., is distributed largely through two successive middlemen, the wholesale and the retail dealer; and another series of two middlemen consists of the traveling huckster in Massachusetts and elsewhere, who buys poultry from farmers and sells to retail merchants. Hop growers of the Pacific coast frequently sell direct to commission men who buy for large dealers, and these dealers in turn make part of their sales to brewers.

## TRANSACTIONS INVOLVING THREE OR MORE MIDDLEMEN.

A series of three middlemen may include, first, the local buyer or shipper; second, the commission dealer or the wholesale merchant; and third, the retail merchant. Watermelons from the region of San

Antonio, Tex., are reported to be distributed in considerable quantities through such a series of dealers. Traveling hucksters in Missouri buy poultry from farmers and sell occasionally to merchants or to commission firms, who in turn include among their customers some retail dealers. Apple dealers in this country purchase the fruit from growers and sell to United States agents of German importers. The third in this series of middlemen is the retail dealer in Germany.

In the sale of fruit by auction, as is common in large cities east of the Mississippi River, the auctioneer is an additional middleman. He may sell for a commission dealer to whom the consignment may have been made by a country buyer; and the purchaser at such an auction may be a jobber, who in turn sells to a retail merchant. Five middlemen are thus concerned in such a transaction.

Another instance of a long series of middlemen may be had in some exports of wheat from North Dakota to England. The grain may be bought first by a country grain dealer, consigned to a middleman at Duluth, Minn., bought there by an exporter, who in turn sells through his European agent to a foreign grain dealer. The last of the series of transactions may be the sale by the foreign merchant through the miller. Hay, in many parts of the country, is frequently bought by a local merchant, who sells through a commission man to a wholesale dealer. Or again, the commission man may sell to an exporter who ships direct to an importer in Cuba, and one or more additional sales may be made before the hay reaches the last purchaser.

Onions raised in Kentucky are sometimes bought by a local merchant and shipped to Louisville; here they may be put into sacks and consigned to a New York wholesaler or a commission man, who in turn sells to a New York retailer. Eggs and poultry frequently pass through the hands of at least four middlemen.

The marketing of clover seed is an example of a transfer from one farmer to another through a number of middlemen. The first middleman may be an Indiana shipper who consigns to a commission dealer in Toledo, Ohio; here the seed may be purchased by a merchant and shipped to a wholesale dealer in a distant city; the last middleman in this course of distribution may be a country storekeeper or a city dealer in agricultural supplies.

## MARKET PLACES.

### PUBLIC CITY MARKETS.

Public market places are established in a number of cities and towns, and in these places consumers may buy such articles as fruit, vegetables, dairy products, poultry, and eggs direct from farmers as well as from dealers. In recent years there has been a tendency in some markets, as at Baltimore, Md., Norfolk, Va., and Washington, D. C., for practically all of the stalls to be used by dealers, while the producers occupy places along the neighboring sidewalks.

Market places are owned sometimes by city governments and sometimes by private corporations. In Washington the largest markets are under private ownership, while in Baltimore the largest markets

belong to the city. In York, Pa., there is one market owned by the city and five by private parties.

At some markets the only accommodations are those afforded by an open square, as one of the markets at Omaha, Nebr., and one at Richmond, Ind.; other places have open sheds, and still others are furnished with market houses. Some of the most noted markets of the United States are held under open sheds; the former French market of New Orleans and the Lexington market in Baltimore are both of this type. Among the numerous cities which have market houses are Pittsburgh, Pa., Mobile, Ala., Buffalo, N. Y., Erie, Pa., Salem, Mass., Washington, D. C., Richmond, Va., Norfolk, Va., and Baltimore, Md.

The charges for space along the curb at some markets range from 10 cents to 75 cents per day for each wagon and by the year from \$10 to \$50 or more. At Atchison, Kans., and also at San Antonio, Tex., a charge of 10 cents a day is made for each wagon occupying a place in the market, while at Buffalo, N. Y., the rate for a one-horse vehicle is 15 cents and for a two-horse wagon 25 cents per day, and at Norfolk, Va., these rates are, respectively, 10 and 15 cents. At Richmond, Ind., and Omaha, Nebr., spaces in the markets are sold at auction to the highest bidder.

Producers sell in large quantities to dealers and deliver to commission men at public market places similar to the ones devoted to retail trade, and in many of the retail markets wholesale dealing is also done. The public market places of Omaha, New York, and Denver, Colo., are used almost exclusively for wholesale trade, and so are wharf markets in Pittsburgh, Pa., Baltimore, and Washington.

#### PUBLIC WAREHOUSES.

Another institution which aids the producer to dispose of his crop is the public warehouse. Illustrations of this are afforded in marketing tobacco in Virginia and North Carolina, wool from the northern Rocky Mountain States, and to some extent rice in Louisiana and Texas. The growers, or their representatives, with their produce, meet the buyers at these warehouses.

The method of operation in Virginia may be illustrated by the conditions at Richmond. The warehouses here are listed and market begins in the first one on the list for a certain day. After sales have been made in the first buyers go to the second, and so on throughout the list. Planters arrange their tobacco in piles along the floor of the warehouse, each pile being identified by a label or card attached to it. As the piles are auctioned off each buyer has some mark of identification attached to the pile purchased, and a record is made by the warehouse authorities. On leaving the warehouse the planter obtains his money from the warehouse manager, who in turn makes up a bill against each buyer for the total amount of tobacco he has bought that day. After the last warehouse sale has been made the market is continued at the Tobacco Exchange, where dealing is based upon samples displayed there.

The importance of this system may be judged by the quantity of tobacco sold in these warehouses by farmers. The total sales by farmers at 21 Virginia markets having tobacco warehouses amounted during the nine months ending June 30, 1909, practically the entire

season, to 116,000,000 pounds; and in the fiscal year ending July 31, 1909, the sales by planters in the warehouses of 45 North Carolina markets amounted to 142,000,000 pounds.

In selling rice at warehouses or on the New Orleans Board of Trade sealed bids are submitted to the sellers and the sale is expected to be made to the highest bidder. In cities as far west as Chicago it is a common practice to sell fruit in warehouses which may be owned by railroads and used by auction companies. The consignment of California or Georgia fruit, for instance, will be sent to a commission merchant in New York, who will have the fruit sold to his account by the auction company.

#### STOCKYARDS.

The largest wholesale market places open to the producers are the stockyards in such cities as Chicago, Kansas City, Omaha, and St. Louis. Sales in these stockyards may be made direct by the owner of the stock to the ultimate purchaser, but it is customary for transactions to be made through commission men.

#### FINDING A MARKET.

##### SELLING IN TRANSIT.

One of the primitive ways of finding a market is for the farmer to go with his wares from house to house, or from store to store, making inquiry until a purchaser is found. An application of this simple plan is made on a large scale in the marketing of live stock.

A car of cattle consigned from a Kansas shipping point to Chicago may be unloaded and placed on sale at Omaha or Kansas City. In case no sale is made at one of these stopping places, the stock is forwarded to Chicago. This practice is common on most of the important live-stock routes of the United States.

Grain also frequently changes hands at an intermediate market through which it passes, and the cars thus sold may be forwarded to destinations selected by the new owners. Regular quotations of prices are made at Chicago and other cities for grain in cars billed through to eastern markets from shipping points in the Middle West. Wheat raised in the Canadian northwest and shipped to the seaboard through North Dakota and Minnesota for reentry into Canada by way of the Great Lakes, often changes hands at Duluth.

##### DIVERSION OF SHIPMENTS.

Another method of searching for a market is that of diverting a consignment to a destination other than the one first named in the shipping paper. An illustration of this is the practice common in the grain exporting business of the Pacific Coast. It is usual for a cargo of wheat or barley sent from this coast to Europe to be consigned "for orders" to some port in the British Isles, as Queens-town, Falmouth, or Plymouth. After the vessel starts, the exporter tries to have a purchaser ready to bargain for the cargo when it reaches the port of call. The voyage around Cape Horn takes three or four months, and this time is allowed the exporter for finding a

suitable market. On its arrival at the port of call, the vessel receives orders as to the port at which the grain is to be discharged.

A similar plan is followed in shipping fruit by rail from California to the East. Two of the diversion points on these routes are Council Bluffs, Iowa, and Minnesota Transfer, a freight yard between St. Paul and Minneapolis.

Other important instances of this practice of diverting a consignment en route are afforded in the movement of fruits and vegetables from Southern States. A commission firm, whose head office is in Pittsburgh, Pa., distributes its marketings in this way. On receipt of a telegram, say, from a Georgia shipper, announcing that he has a car ready to move, the head of this firm decides at once the general direction for the car to go. If the West promises the best markets for the next several days, the shipper may be notified to consign to Cincinnati, or if the car is to go to an eastern city, the consignment may be made to Potomac yard, a freight transfer point on the Potomac River opposite Washington, D. C. At each of these diversion points a representative of the commission firm opens the cars, inspects the contents, and reports the results by telegraph or telephone to the Pittsburgh office, which is kept informed of market conditions in different cities. The agent at the diversion point will then receive orders as to the final destination of the car. Among the diversion points used for shipments of produce from the southwest are Kansas City, St. Louis, and Chicago.

### ASSOCIATIVE MARKETING.

#### THE BEST SYSTEM UNDER FAVORABLE CONDITIONS.

Incidentally, on preceding pages, references have been made to associative marketing by producers' cooperative associations, or for associations of producers and individual producers by noncooperative agencies. The subject of cooperative marketing by farmers is a very large one, but needs to be treated only in its essential features in this report. There are economic advantages in this system of marketing, which brings substantial returns to the cooperators under good management and under conditions which permit success. For the treatment of this subject with some details reference may be made to the article on subsequent pages.

Briefly stated, among the economic advantages of cooperative marketing are the lower freight rate of the carload shipments than the freight rate for shipments for less than a carload; the command of transportation facilities by a strong association, perhaps at a time and at a place when the individual shipper would be neglected and powerless; the prompt news service with regard to prices and market conditions in those trade centers where the association sells its products; the ability of the association to direct shipments in transit to the best market; uniformity in grading and packing products; and the establishment of a good reputation for quality. Again, the cooperative association, by means of having sufficient capital and an able manager, sells through trustworthy commission merchants and to dealers who may be depended upon to pay cash on delivery, or with whom short-time credit is safe.

In associative marketing, also, producers insure one another against loss in particular sales. A producer selling individually may receive from a certain sale hardly enough to pay the costs of transportation, and in associative selling also a sale may now and then be made at prices hardly above cost, or perhaps below cost of distribution, but in the latter event the unprofitable sale is pooled with all other sales during a certain time, perhaps a month or possibly a whole season, and consequently the producers whose goods were in the unprofitable sale fare as well in the general division of profits as the other members of the association do.

The cooperative marketing association, if properly organized, equipped, supported, and managed, affords the best means for the sale of many products of the farm, among which fruits and vegetables are conspicuous.

#### SERVICE ALREADY PERFORMED BY THE DEPARTMENT.

The foregoing is a condensed account of the premises that must be considered in planning the establishment of a Division of Markets in the Department of Agriculture. This department is already performing some service in connection with the marketing of agricultural products, the main features of which follow:

There have been under way for several years definite experimental investigations into the whole question of transporting, storing, and marketing, as well as growing and harvesting fruits, including oranges, grapes, apples, peaches, and other crops. These investigations relate to the domestic and foreign movement of fruits.

A thorough investigation and study of the grading, transportation, and handling of cereals, particularly corn, wheat, and rice, has been going on for several years, and valuable information has been secured.

Under the direction of Congress, standards for the different grades of cotton were fixed by the department two or three years ago, and recently definite work has been undertaken looking to the improvement of the present methods of marketing cotton, one phase of the work being the organization of cooperative farmers' organizations for the handling and marketing of the crop.

For a number of years careful studies have been made of the production, transportation, storage, and marketing of all the standard truck crops, such as potatoes, cabbage, celery, tomatoes, onions, etc. A great deal of valuable data has been accumulated regarding the marketing of such crops, and one tangible result of the work has been the organization of ever increasing numbers of associations of truck growers for the cooperative marketing of their produce.

The department also is studying market methods and the conditions surrounding the marketing of eggs, milk, butter, and other animal products in connection with studies of the methods and cost of production of these products.

#### SOME LINES OF SERVICE PRACTICALLY IMPOSSIBLE.

If Congress should establish a Division of Markets in the Department of Agriculture, it may be said with confidence that the requirements of the act establishing the division would be performed as fully as the appropriation therefor permitted. This service might

be so large as to necessitate the expenditure of several million dollars or it might be more moderate in proportions and cost no more than one or two hundred thousand dollars. It is a basic assumption in the preparation of this report that Congress would not want to expend the larger amount mentioned.

#### MARKET NEWS.

If the department were to take charge of any feature of the marketing of farm products, if it were to perform the duty of finding customers or markets, if it were to perform the duty of ascertaining market conditions and prices every day in all principal markets and undertake to make the information serviceable to farmers throughout the country, the expense of such undertakings would be practically prohibitive.

Take the matter of market news at trade centers. To maintain a service of this sort it would be necessary to employ men at trade centers to be in constant touch with their markets and to report by telegraph daily or oftener the prices of farm products and the state of the market with regard to supplies.

The cost of this service would be enormous. There is a farmers' cooperative association for marketing vegetables on the Eastern Shore of Virginia that expends \$25,000 a year for telegraphing, and yet this association covers only two counties of ordinary size. The great association of California citrus fruit growers for marketing oranges and lemons spends \$75,000 a year for telegraphing.

#### TELEGRAPHIC SERVICE.

If a Division of Markets were to do a telegraphic service for principal farm products and for the whole country, it seems certain that the cost would be a million dollars or more. This is the conclusion that is indicated by the experience of the two associations just mentioned.

The matter of performing a telegraphic service has consequences which must inevitably follow. Suppose, for instance, that a Division of Markets were collecting information by telegraph concerning prices and market conditions at trade centers and were to publish the report that there was a scarcity of a certain product in a certain market and that prices were high enough to be extremely profitable to producers. It is likely that producers having no market associations, who were able to reach the market reported as being in a state of scarcity and high prices, would send to that market quantities of the products sufficient to create a state of glut.

The individual producers and shippers would not be under the control of any coordinating power, and in order that the news supplied to them by the department might be made useful it would be necessary for the department to perform the duties of a director of shipments in order that markets might not be glutted.

As will be observed in reading the descriptions of the systems of marketing by cooperative associations on subsequent pages, these associations are in no need of a telegraphic service performed by the Government. They have their own telegraphic service and, combined



with this, the essential service of control of shipments, both in quantity and in choice of market, and the services of inspectors and selling agents.

Furthermore, suppose that the individual farmer were to receive telegraphic news from the department informing him that the best market at that instant was a certain one named. Probably he has no means of reaching that market; no knowledge of a commission merchant or other person to whom he might consign his product. In such case the farmer could make no attempt to take advantage of the news.

Suppose, however, that he could ship his product to some consignee in the market mentioned. The goods are eventually received, but in the meantime the price has fallen, perhaps the market has become glutted, and the producer who sent his products to that market hardly clears expenses. What will be the attitude toward the marketing service of the department? When instances of this sort are sufficiently multiplied, as they would be in time, the marketing service of the department would be generally regarded as untrustworthy, as affording profitable returns in some cases and quite the reverse in others, and the unfavorable experiences would be the ones that the public would remember.

## RECOMMENDATIONS.

### OUTLINE OF SERVICE.

1. A survey of the systems of marketing farm products clearly discovers what the farmers can best do to their advantage. They must associate themselves together for the purpose of assembling their individual contributions of products, of shipping in carload lots, of obtaining market news at places to which it is practicable to send their products, to sell in a considerable number of markets if not in many markets, and to secure the various other economic gains of associative selling. But farmers need some help in establishing associations. They always need a leader for such purpose and there may be no leader.

A division of markets could perform excellent service in helping farmers to help themselves to organize marketing associations. These associations could either handle their products until sold in various markets, or could ship their products to a noncooperative marketing agency which would take charge of the entire business of distribution from a central receiving point. It seems not always to be feasible to market products cooperatively, or, at any rate, the producers are not always disposed to do so. However that may be, there are many noncooperative marketing agencies in this country that are performing excellent service for farmers, and some of them are doing a business of immense proportions. A division of markets, equipped with a corps of competent field agents, could get into touch with farmers for the purpose of promoting the organization of marketing associations wherever the farmers request assistance or information; the agent could meet the assembled farmers and practically organize them if they desired.

It can hardly be doubted that this service can be successfully performed and, eventually, with results greatly beneficial to farmers.

The traveling field agents also could perform good service in examining into the affairs of weak and unsuccessful marketing associations and advise changes for their improvement.

2. Farmers may organize well for selling their products, and they may receive daily from their markets all that could be desired in information relating to prices and to existing market conditions, but this is not all that they need for the business-like marketing of their products. They should know what the production of the crop is to be, and this information is equally important to consumers.

For many years the Department of Agriculture has estimated the production of principal crops after harvest, and during the last year or so has been indicating the prospective production of some of the principal crops a short time before harvest. A knowledge of what the crop is to be is most essential in marketing. As soon as the farmer begins to harvest he should have in mind a fairly definite idea of the volume of the crop throughout the country in order that he may occupy a place in the market that is fair to himself, or, as the case may be, a place in the market that is fair to the consumer.

The crop-reporting service of the Department of Agriculture has never included in its quantitative estimates the vegetable, fruit, and berry crops. Trustworthy estimates of the production of these crops require a system different from that in use for estimating the production of the cereal crops, for instance, and estimates for these crops can not be made without the expenditure of much money.

If a division of markets is established, it should be equipped for ascertaining, in connection with the other crop-reporting service of the department, the prospective quantitative production of all vegetable, fruit, berry, and other crops that are of considerable commercial account, the production of which is not now estimated quantitatively by this department. For this purpose local correspondents could be employed, and in addition to these it would be necessary to employ, under salary, local agents and traveling field agents.

3. Marketing associations have at least fairly well worked out the problems of grading and packing products, but the independent producer is poorly equipped with knowledge concerning this subject, and even the associations do not agree in practice where it would be better for them and for the consumer if they did.

It is desirable, therefore, that a division of markets, if established, should be authorized to investigate the subjects of the grading and packing of products, and also the subject of the character of the package or container, the questions of weights and measures, and the peculiar problems of market preferences. Uniformity in practice in grading and packing may not be everywhere feasible throughout as large a country as the United States, but undoubtedly it should be greatly promoted. The same remark applies to weights and measures and the size and character of packages and containers.

4. General market news service is not recommended. If such service were derived from telegraphic reports, the expense would be enormous. If derived from reports of local agents sent by mail, the expense would be large and the service would not be prompt. Whatever this service might practically be, it would not be useful to marketing associations and agencies, for the reason that they would already know the facts from their own sources of information before the department's report could reach them.

There may be a telegraphic service, however, outside of news at markets, which would be new and serviceable, consisting of prompt reports of the time of the beginning of shipments from places of chief production, the time of the ending of shipments from such places, and, perhaps, reports of the quantities of shipments, actual and prospective, from the principal shipping places. The expense of such undertakings, however, would be large.

5. As previously indicated, if a division of markets is established it should be provided with a corps of traveling field agents and a large corps of local agents and correspondents. The various utilities of these agents and correspondents may be partly itemized as follows:

To help producers to organize for marketing cooperatively or through a noncooperative agency; the examination of local difficulties; to help producers to find markets; to report the current descriptive condition of crops in addition to the work already done by the department's crop-reporting service; to estimate the probable production of crops a short time before harvest; to report the beginning and ending of the shipping season; to report the crop movement from producing points through "gateways" to principal markets.

6. A Division of Markets must naturally be concerned with problems of transportation. It should be empowered to ascertain the facts with regard to the routes, methods, time, and costs of transportation by all kinds of carriers from chief producing to chief marketing points and for such minor points as will provide information that will be required by the public.

7. Storage has become an important feature in the distribution of farm products, and a Division of Markets should be able to investigate public storage rates and accommodations at all points, and also the subject of storage in transit, and to compile data comparing the gains or losses due to selling just after harvest with those due to selling after a period of storage. The storage may be either on the farm or elsewhere.

8. The business of a commission merchant is of such high importance in the distribution of farm products that his business should be a subject for investigation by a Division of Markets. If a list of trustworthy, honest, honorable commission merchants could be established and published it would be of service to farmers. A list of commission merchants in a city for which the board of trade or chamber of commerce will stand as sponsor might be published by the department.

9. It is a matter of some importance that the costs of the distribution of all farm products from producer to consumer should be investigated. These costs should be itemized, and their total should be compared with prices at the farm and with consumers' prices.

10. A description of principal markets should be prepared and published. Among the items of the information to be covered in such description would be the hour of opening market places; the local fancies of consumers; how products are handled; the relative supply, by months, throughout the year; the course of prices; methods of sale, as through the commission merchant or wholesale dealer, at auction, etc.; imports from foreign markets.

11. A description of chief producing regions would have some utility. It might well be devoted to the characteristics of the prod-

ucts, the methods of marketing, the places where products are marketed, producers' prices, competition with other producing regions, etc.

12. Notwithstanding the decline of exports of some important farm products, the export trade is still of enormous amount, and probably will be so for an indefinite time. There are many agricultural producers to whom information with regard to foreign markets might be useful, who are not now exporting and are not likely to export unless provided with information. For some products, such as fresh apples, other fruits, some of the vegetables, and other products with minor exports, information might well be published concerning the method of reaching foreign markets, methods of selling in them, prices, gross and net, costs of exporting, the best time to export, and difficulties, if any, in connection with the tariff, etc.

13. To make, keep, and publish an elaborate record of prices of farm products would be a useful service that could be performed by a Division of Markets. Among the classes of prices that might well be compiled are producers' prices at the farm, wholesale prices, retail prices.

14. It would be important that a Division of Markets should make, maintain, and publish a list of associations for marketing farm products and of agencies for marketing for associations of farmers and a list of buying associations and agencies of associations of consumers. In addition to these, annual statistics should be collected and published concerning the business done by marketing associations.

15. The experience of marketing associations in foreign countries for possible utilization by producers in this country should be ascertained and made known to them, and for this purpose a Division of Markets should investigate the systems of marketing farm products in other countries and publish the results, especial attention being given to those features which it may be presumed might be adopted beneficially in this country.

16. For much of the work of a Division of Markets dependence would need to be placed on publications, including periodicals, and it should be authorized to expend a large amount in the beginning and a liberal amount annually for the purpose of establishing and maintaining a library.

17. A Division of Markets must necessarily publish bulletins, circulars, and information in other forms. The results of its investigations of the facts pertaining to particular topics and problems must continually present themselves for publication, and provision should be made therefor.

18. A cheapening of farmer's costs of marketing will naturally result in gain to the producer rather than to the consumer. If the consumer is to gain by changes in the costs of distribution, it seems probable that he must do so through cheapening or eliminating costs at his end of the chain of distribution. Consumers can cheapen the costs of farm products by cooperative buying and by reducing the expenses of retail and other local distribution. The consumers' aspect of the problems of the distribution of farm products is a conspicuous one at the present time, and problems in distribution that are concerning the consumer rather than the producer may well be included within the service of a division of markets. The foregoing recommendations are repeated for service in behalf of consumers as far as applicable.

It would be unreasonable to expect that a Division of Markets, with duties prescribed as suggested, or with fewer duties than these and yet of sufficient importance to make such a new office really serviceable, could be useful at the very beginning. Considerable time would be required properly to organize the office and field forces and to bring lines of service up to smooth, effective work. Time would be required also to ascertain in what particular efforts it could be most useful and in what directions it might better develop.

The cost of maintaining an office of this sort so as to make it worth while can not be estimated at this time. If such an office is established, its duties should be mostly permissive instead of mandatory, in order that it may not undertake too much in the beginning and that it may feel its way to the service that it can best perform. An appropriation of \$100,000 might be sufficient for the first year, but almost certainly would be insufficient afterwards.

An office of this sort, with duties outlined in the preceding recommendations, would need to employ many experts and specialists as well as an office force of considerable size. Some of these experts and specialists would need to have practical knowledge of marketing business, and all of them should be well informed concerning the agricultural geography of the United States and the distributive movement of farm products. To find suitable men of this sort who could be made practically useful in unacademic lines of work would require much time.

## SYSTEMS OF MARKETING.

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### SPECIFIED PRODUCTS.

#### INFORMATION OBTAINED IN THE DEPARTMENT OF AGRICULTURE.

The following articles devoted to the marketing of specified farm products and to the special subjects of cooperation and types of distribution were prepared by expert specialists in the Department of Agriculture for the purpose of this report. These men have had years of familiarity with the subjects about which they write and have obtained a large amount of information with regard to marketing from direct contact with the systems that they describe. To some extent they have made use of correspondence. The import of these articles has, to some extent, been summarized on preceding pages, but much of the matter contained in them is not embraced in the summary, except in the most general way.

### TYPES OF DISTRIBUTION.

#### SALES BY PRODUCERS.

A simple form of marketing is the producer's delivery of his goods directly to the consumer. Either the consumer may come to the farm and make his purchase, or, what is more frequent, the producer may take his commodities and drive to a town or city in search of retail purchasers. Here sales may be made either at the doors of the consumers or at a public market place.

This direct type of distribution applies, in the case of many commodities, to small sales, quantities suitable for household use. Fruits, vegetables, hay, milk, butter, eggs, and poultry, as well as other farm products, are marketed to some extent in this way, but the sales thus made are generally limited to small lots and the purchasers are found usually within wagon-hauling distance from the places of production. There are a number of instances, however, of shipments made by farmers to distant consumers, notably eggs and poultry sent to hotels and restaurants. In such trade it is usually essential that the products be of a high quality and that a given quantity be shipped regularly.

A development of direct marketing is the purchase of cotton by the mill operator direct from the planter, the buying of wool from the growers by representatives of manufacturers, and the farmer selling his wheat to a near-by mill. Here also the producer sells direct to the consumer, and the cost of distribution is borne entirely by one or both of them.

In the form of distribution just mentioned—direct sale by producer to consumer—there is no middleman, but there are costs of marketing. Finding a purchaser involves more or less effort and actual expenditure on the part of the farmer, while finding a desired commodity may also involve some cost on the part of the consumer. Another expense is the delivery of the purchased goods to the consumer.

Distributing large quantities among many consumers and over long distances is scarcely practicable without the aid of some class of middlemen, such as commission merchants, wholesale buyers, and farmers' selling agents. In making a sale to or through a middleman, the producer may ship the commodity to a distant point, deliver it by wagon, or simply leave it on his farm for the buyer to take away. By the first method—shipping to a distant point—the goods usually pass out of the farmer's hands before he receives payment for them, and he has to depend for his money upon the honesty of the consignee. For this reason it is often, if not usually, better to sell to a local merchant or track buyer for delivery by the farmer's wagon, or possibly to sell to some one who will take the produce at the farm either before or after it is harvested. Apples are frequently sold on the trees, and are picked, packed, and hauled away by the buyers. One disadvantage of selling for local delivery may be the scarcity of local buyers. It is not always as easy to obtain good prices at home as in a remote but large market.

Farmers' cooperative marketing associations serve in a measure to take advantage of the good points of both these methods, sending to a distant market and selling at home. The interests of members are represented by sales agents of an association in various markets where buyers are found among both wholesale and retail merchants. And the fact that the produce of such an association is usually marketed in large quantities and is apt to be of good quality makes it easier for the sales agents to secure fair prices. Thus a number of distant markets are kept open for the goods of members of the associations, and it is hard, if not impossible, for one or more local buyers to fix their own prices at a producing point. The association member may sell either at home or elsewhere, subject, of course, to the rules of his organization. In some cooperative marketing associations a member is required to pay into the treasury a certain rate of commission on his sales, whether he sells through the association's agents or otherwise.

#### MIDDLEMEN AND THEIR FUNCTIONS.

In addition to finding purchasers for commodities on the market, securing goods for persons intending to buy, attending to transportation and storage, and making and transmitting collections of money, the functions of a middleman may include also the collection of small lots to make a carload, shipload, or other large unit desired by a certain buyer or class of buyers; and likewise the middleman may serve to distribute a large consignment among many purchasers. A carload of berries is too much for an average retail merchant to handle; it is generally necessary to secure a number of such buyers in order to dispose of a car of such produce. On the other hand, the trade in fruit, as in many other farm products, is conducted over such a vast extent of territory and in such large quantities that it has become nec-

essary for most of the individual consignments to be of considerable size. Freight rates and conditions of freight service make it almost necessary that shipments of most farm products be made in car lots. Hence the double service of collecting small consignments into carloads and of distributing carloads among many buyers has become a necessary part of the present system of distribution. This service, as well as other functions of the middleman, is performed by officials and representatives of farmers' marketing associations.

## COOPERATION.

### BENEFITS FOUND IN ASSOCIATIVE MARKETING.

The cooperative marketing of farm products is the form of distribution by producers in which they benefit in proportion to their contributions of the products sold. There are many variations from the pure form of cooperation, but usually every member must own at least one share of the capital stock of the company and may not own more than a prescribed number of shares: no member can have more than one vote, or, if he has a vote for every share of stock, the restricted number of shares that he can own limits his voting power: every eligible person is admitted to membership; no member is permitted to sell his shares of stock without the consent of the association, unless they are sold to the association. There is an intangible something that is demanded by cooperation as essential, and this is evidenced by feelings of fellowship, mutual devotion, and faithfulness. Cooperation does not exist enduringly without these.

Relative to the amount of business done, the capital stock of a cooperative marketing association may be small. The association does not buy the products sold by it, nor does it advance money against future sales, and consequently the needs of the association for capital are usually confined to the advancements of running expenses, unless the association owns a warehouse, packing-house, or other building. A capital of \$5,000 may be sufficient for a marketing association doing a large amount of business, while an association with a large amount of business and investment in real estate may need a capital of \$100,000 or more.

Cooperative marketing associations have different requirements for their success. There must be the faithfulness and devotion of members already mentioned, and a sort of fraternal spirit; the business management must be capable; and the association must see to it that a salary is paid that is large enough to procure a competent manager; the sales must be large enough to make expenses relatively small, so that the percentage of the sales paid for expenses is low; a sufficient amount of capital must be provided and the association must not borrow; the business must be carried on in cash: members should have no more than one vote apiece in determining the policy of the business, or the ownership of shares should be restricted to a small number; a vote per share is the rule; to keep out intruders and inharmonious elements no member sells his stock without the consent of the association, and without such consent he sells it to the treasurer: expenses and profits are apportioned in proportion to receipts for sales for each member.



Certain weaknesses have appeared in cooperative marketing as in cooperation for other purposes. The business can not thrive under an incompetent manager; the board of directors must not nag the manager and require him to accomplish results without the power to do so; deficient capital is fatal and credit in buying and selling is often so. A common weakness of these associations is found in desertions by members; instead of selling all of their products through the associations they sell some of them through other channels. If a competitor offers to a member a higher price than he gets through his association, he sells to the competitor, and to this extent weakens his association. Sometimes the business of the association is too small, so that the percentage of receipts that must be devoted to expenses is fatally high. A weak spot in cooperation, frequently observed years ago, was the fact that some of the operators looked upon cooperation more as a means of social reform than of economic benefit. Social theories and enthusiasm are usually detrimental to success.

The cooperative form of marketing farm products has certain features of economic gain that commend themselves to all persons who understand them and are in a situation to secure them.

The cooperative marketing association keeps itself well informed with regard to prices and market conditions in all of the markets in which it sells or can sell its goods. This is done by means of telegraphing. The prosperous marketing association doing a large business at the present time expends a large amount of money in telegraphing. The annual expense of the Eastern Shore of Virginia Produce Exchange for telegraphing is about \$25,000, and the annual expense for the California Fruit Growers' Exchange, which handles the principal portion of the citrus crop of California, is \$75,000. The best success of the marketing association necessarily depends on a knowledge of the best markets in which to sell the products. The manager of the association must in effect be in every market in which he sells, and all of the time.

#### ECONOMY IN CAR-LOT SHIPMENTS.

Another great advantage in the cooperative form of marketing over the separate marketing by individuals is the command of the carload freight rate. The farmer who ships a part of a carload pays a much higher freight rate than does the shipper whose products are enough to fill a whole car. The advantage of a car lot over a smaller quantity is so great that the smaller shipment competes at a disadvantage. Not only are the freight rates for carloads lower, but the time of transit is shorter and the risk of injuring the produce in transit is less. A car lot may be sent to any one of a large number of cities and towns, while a smaller shipment is limited by higher freight rates and by delays in transit to fewer markets.

The saving in freight cost effected by shipment in carloads instead of smaller lots is illustrated by the instances quoted in the accompanying table. This table compares the freight rate per package, or per 100 pounds, with the rate for smaller quantities; and the two rates are used to compute the respective freight charges for a quantity equivalent to a minimum carload. Oranges from Florida points, forwarded through Jacksonville to New York, are charged, between

these two cities, 46 cents per box when shipped in carloads and 50½ cents per box when shipped in smaller quantity. The smallest quantity of oranges for which the carload rate is allowed is 300 boxes. This amount of fruit would be charged \$138 when carried in a single car and billed to one consignee; but, if divided into smaller lots and carried in different cars, or if billed as two or more separate consignments, the charge would be \$151.50, or \$13.15 more than the charge for a single car handled as one consignment.

There is a difference also in the rate for a small as compared with a large carload. When celery is shipped under refrigeration, 350 crates are accepted at the carload rate, which in this case between Jacksonville and New York is 39 cents per box; but if transported in ventilated cars the minimum carload is fixed at 420 boxes and the rate is only 33 cents per box.

The examples of rates shown in the table are taken from the traffic of two sections of the country, the Atlantic seaboard and the western part of the South Central States.

There is a much greater difference between these carload and less-than-carload rates in the southwestern region than along the Atlantic coast. In fact, the less-than-carload rates from points in Louisiana, Arkansas, and Missouri to cities in the Middle West are quoted in the table merely to show what freight would be paid in case such small quantities were shipped. This traffic is regularly in carloads. On the Atlantic coast the smaller margin between carload and less-than-carload rates may be due, in part at least, to water competition. Regular lines of fast steamers ply between northern and southern Atlantic ports, carrying large quantities of fruits, vegetables, and other farm produce.

## Carload and less-than-carload shipments compared in cost of freight.

[Refrigeration charges are not included in the rates quoted below.]

Product.	From—	To—	Minimum size of carload.	Rate.		Charge for carload at—	
				Unit.	Carload.	"Carload" rate.	"Less-than-carload" rate.
Oranges, lemons, limes, grape-fruit, and kumquats.	Jacksonville, Fla. (originating at points beyond).	New York, N. Y.	Standard boxes or crates, 300	Box or crate.....	\$0.46	\$138.00	\$151.50
Do.....	do.....	Buffalo, N. Y.	300	do.....	.53	159.00	189.00
Do.....	do.....	Boston, Mass.	300	do.....	.65	195.00	228.00
Do.....	do.....	Pittsburgh, Pa.	300	do.....	.66	198.00	237.00
Celery—							
Under refrigeration.....	do.....	Philadelphia, Pa.	350	do.....	.47	164.50	178.50
Under ventilation.....	do.....	do.....	420	do.....	.41	172.20	214.20
Celery—							
Under refrigeration.....	Jacksonville, Fla. (originating at points beyond).	do.....	350	do.....	.39	136.50	150.50
Under ventilation.....	do.....	do.....	420	do.....	.33	138.60	180.60
Potatoes			Pounds.				
Do.....	do.....	do.....	30,000	100 pounds.....	.47	141.00	144.00
Do.....	do.....	New York, N. Y.	30,000	do.....	.50	144.00	150.00
Do.....	do.....	Philadelphia, Pa.	24,000	do.....	.62	148.80	172.80
Do.....	do.....	New York, N. Y.	24,000	do.....	.76	153.60	182.40
Peaches.	Fayetteville, Ark.	Columbus, Miss.	50,000	do.....	.51	102.00	108.00
Do.....	Fort Smith, Ark.	St. Paul, Minn.	20,000	do.....	.625	125.00	300.00
Do.....	Shreveport, La.	St. Louis, Mo.	20,000	do.....	.75	150.00	300.00
Strawberries	Alexandria, La.	Kansas City, Mo.	20,000	do.....	.75	150.00	300.00
Do.....	Springfield, Mo.	Chicago, Ill.	24,000	do.....	.36	136.00	270.00
Apples (in barrels)	Rogers, Ark.	St. Paul, Minn.	24,000	do.....	.77	93.60	126.00
Do.....	do.....	do.....	24,000	do.....	.77	93.60	126.00
Potatoes	Crowley, La.	St. Louis, Mo.	24,000	do.....	.35	84.00	235.20

In another matter of transportation the marketing association has the advantage of the individual shipper. The association being a large shipper and a shipper in car lots has a better command over the supply of cars and receives better train service.

#### GRADING AND PACKING.

Perhaps no weakness in the marketing of products by the individual farmer is so great as his neglect of grading his products and packing them in the best manner. Generally speaking, the farmer can not and will not learn to do these, or, at any rate, he will not do so if left to himself, consequently the members of marketing associations are usually not permitted to grade and pack their own products, but must send them to a central point where persons in the employ of the association perform the service.

The value of grading and packing as performed by marketing associations is of the highest importance. A bushel of potatoes, for instance, may be properly graded and of the first quality and yet, if a very few scabby and rotten ones are placed on top, the value of the entire bushel is diminished.

#### MANAGEMENT.

The manager of the cooperative marketing association usually finds the best market for each shipment. That he fails to do so now and then is unavoidable; but these failures are very small compared with those in the attempt by the individual farmer, without news of his markets, to sell for himself.

In the cooperative form of marketing there is an element of insurance which is worth noting. The association does not distribute the proceeds of each sale, but accumulates the proceeds of all sales of, say, a month, and distributes the net amount. By so doing there is a distribution of high prices and of low prices among all members, no matter at what prices their individual products were sold.

The manager of a cooperative company is able to take advantage of his latest market news by keeping control of his shipment until it arrives at a certain point on the railroad. When it arrives there it is subject to his order for transportation to any market designated by him. In other words, the goods, when close to several markets, can be sent to the one with the highest price.

The farmer in individual marketing has suffered enormously by risking untrustworthy customers and he is still suffering on this account. On the other hand, the cooperative association in this case can afford to investigate its commission merchants and customers, and it also inspects the products, sometimes in transit and often after they have been received by the consignees.

By means of efficient management the marketing association is more nearly able to do a cash business in making sales than the individual farmer is; and by means of doing a large business the association, notwithstanding the fact that it has expenses that are unknown to the individual farmer in his marketing, is able to do a business in which the percentage of sales paid for expenses is relatively small. Notwithstanding these expenses, the association obtains prices so much higher than those which the individual farmer could have

obtained that the net returns are higher than he could have secured alone.

The marketing association soon gains the advantage of becoming well and favorably known to consumers. Its label is a guarantee of quality of products and of characteristics of a definite description, and dependence can be placed safely on the honesty of the packing and on the quantity of the products contained in the package.

Economic cooperation gives to the cooperators a mental and moral training which is not to be valued in dollars. The farmer who successfully engages in economic cooperation has, perhaps, to begin with, a somewhat superior character, but, at any rate, he improves and gains under the discipline and requirements of the cooperative association.

#### ELIMINATING A MIDDLEMAN.

Cooperative marketing does not necessarily, and in fact often does not, eliminate any middleman in the process of distribution. If 50 farmers sell, individually, through commission merchants and subsequently associate themselves, and the association sells through the commission merchant, no middleman has been eliminated; but if apple growers, who have been selling their apples individually to traveling buyers, organize a cooperative association and sell to commission merchants the traveling buyer has been eliminated as a middleman. This is what was done in the beginning of cooperation in the marketing of oranges in California. It often happens that when the middleman is eliminated by the association his services are performed by the association itself. There has been a transfer of service from one to another, but no discontinuance of the service. At the same time, however, the marketing association has either eliminated a middleman's profit or has taken some, or all, of it to itself.

#### CONSUMERS NEED TO COOPERATE.

It is well to understand that farmers are not engaged in cooperative marketing for the purpose of reducing prices to consumers, but rather to get a profit for themselves greater than that which they would receive if they marketed their products individually. If the consumer is to acquire any gain through the cheapening of the cost of distribution, it must be in steps in distribution that are near to him, as, for instance, in retail trade and delivery.

An ideal economic distribution of farm products is one in which the association of producers sells directly to the association of consumers. A beginning in this direct economy in distribution had been made in England three years ago.

To understand how cooperative marketing associations are organized and the principles upon which they do business, the articles of association, constitution, and by-laws of several very prominent and successful associations have been selected for reprint. Each association needs to incorporate under the general corporation act of its State, except in Wisconsin and Nebraska, where a special act applies to cooperative associations. The form of statement in the articles of association under the general corporation act of the various States must strictly comply with the specific requirements of the law, but the

association, once having been organized, has power under the law to adopt by-laws that do not conflict with the laws of the State, and this gives the association great latitude of power in constructing a system of management.

### BEANS.

Beans must be considered both as a truck crop and as a dried product. Beans for immediate consumption in a green state, as snap or string beans, are extensively produced throughout the entire trucking area. They are sometimes sold in a limited way to local buyers or shippers, sometimes handled in connection with other truck crops through cooperative organizations, but the great bulk of the crop is marketed through shipment on consignment, except in those regions where extensive canning operations are conducted. Beans for canning purposes are handled much the same as are tomatoes and peas. They are purchased by the canner at a stipulated price per unit of measure.

Dried beans are handled in much the same manner as other grain crops. Local dealers who are provided with suitable warehouse facilities and cleaners usually purchase the rough beans on a clean-bean basis from the growers, the cleaning, grading, and distribution being entirely out of the hands of the producer. The bean dealers are thoroughly organized and in close touch with the distributing markets. Growers, however, have up to the present time proceeded on the basis of independent action. There is no doubt that cooperation among growers would result in advantages, particularly in the sale and distribution of their crop.

### IMPROVEMENTS NEEDED.

One of the great needs of the trucking industry at the present time is a system of reporting the area of the crops planted in each region, the condition of those crops at successive close intervals and during the market period, a daily report of the shipments, and the percentage which has been shipped, together with the percentage and condition of that still remaining in the field. Market reports can be obtained quite satisfactorily through the present methods, but it is likely that with the establishment of cooperative exchanges for growing and marketing purposes arrangements which would be mutually beneficial to the consuming and to the growing centers could be effected through city governments or boards of trade so that the market conditions and reports would emanate from official sources rather than from the commission men and jobbers. What is needed in all this is a service which gives quick returns—correspondence is too slow. Truck crops are highly perishable, occupy the land but a short time, and must be moved quickly. To be of benefit the crop-reporting service must be organized on a similar basis.

### BROOM-CORN BRUSH.

Several problems of considerable importance are presented by the broom-corn industry so far as it concerns the preparation and marketing of the product. Among these are the following:

## INHERENT DEFECTS IN THE BRUSH.

The source and character of these have been elsewhere discussed in connection with the production and marketing of broom-corn seed. Some of these defects are the result of hybridization with other members of the sorghum family. All of these crops are open fertilized, and on the wind-swept plains where much of the crop is grown the pollen may be carried a considerable distance and cause hybridization. The panicles or brush produced by such hybrids show every degree of departure from a normal broom-corn type, but are always entirely worthless for broom-making purposes. For this reason broom corn should not be grown within several rods of any other kind of sorghum, especially if in the direction of the prevailing winds.

There is also considerable danger of hybridization from volunteer *amber sorgo*. This saccharine variety is abundantly grown in the broom-corn producing regions of the plains area. Being very similar to broom corn in its early stages of growth, it frequently germinates in the broom-corn row, or so near the row as to be undisturbed by tillage operations. In these situations it remains undetected until after the panicles appear and the pollen has begun to scatter. By this time the damage has been done, a damage which, of course, does not become apparent until the succeeding year when plants are grown from the hybrid seed produced in this manner.

Another common, inherent defect is the presence of a more or less strongly developed central stem or rachis in the brush. Brush of this character is called "spiky" or "tree top," and is reduced in value and price in proportion to the development of this central stem. The question of the inheritance of this particular character in brush has never been definitely determined. There is every reason to believe, however, that it will yield readily to selection provided cross-pollination of the mother plants is prevented. There is evidence, however, that this character is more in evidence under unfavorable conditions of growth, such as deficient moisture, overcrowding of plants in the row, etc.

The physical factors just mentioned undoubtedly influence the quality of the brush in another very important direction, namely, its length. Brush below a certain length is unprofitable in broom manufacture, and brush too short for profit commonly results from the causes mentioned.

## DEFECTS DUE TO CARELESS HARVESTING.

A uniform peduncle-length of 6 inches is recommended by the National Broom Manufacturers' Association in the case of standard brush which is cut from the stalk. In the case of the dwarf variety, which is pulled or jerked, the entire peduncle is left attached, but usually this is not more than 10 or 12 inches in length. Cutting standard brush with varying lengths of peduncle results in a decrease in price when the brush is offered for sale. All leaves and the boot or upper leaf sheath should be carefully removed from the brush before baling, their retention in the bale not only adding the weight of valueless material, but detracting considerably from the neat appearance of the baled product.

### DEFECTS DUE TO FAULTY CURING.

Color is an item of great importance in brush. By nature the brush has a beautiful pea-green color, and the highest prices are paid for brush which most fully retains its color when cured. This is true not only because a broom made from brush of natural color presents the most attractive appearance, but because color is an evidence of the degree of care used in curing, and therefore of the comparative flexibility and resulting wearing power of the brush. The best color and quality can only be achieved through curing in sheds built for that purpose, by means of which the brush is protected from both sun and rain. A large proportion of the brush grown in the Western States, and especially in the more newly established producing regions, is cured in the open field. This is due in part to lack of funds on the part of new settlers and in part to ignorance or indifference to the requirements of proper production. As a result much of the brush is discolored by the rains, which are normal to the season of the year during which harvesting must take place. The result is a discolored, moldy, and more brittle fiber and a decidedly reduced price from the buyer.

### DEFECTS DUE TO IMPROPER BALING.

These are of two classes. In the first place, it is the common practice to include in the same bale all grades of brush just as they come from the field. The buyer in examining such a bale notes the poorest quality of brush which it contains and estimates the proportion of the lower grades. To be sure of avoiding financial loss, he always places his estimate of this proportion sufficiently high and offers a price to match his estimate of the quality.

Another common defect is the baling of the brush before it is fully mature, which results in molding and even rotting in the bale. Owing to the shrinkage of material baled before it is sufficiently cured, the bale becomes loose and unattractive in appearance, even if there is no actual loss of the contents. A similar result follows from a failure to press tight enough in baling, even after the brush is dry. By the time such loosely baled brush arrives at the warehouse the brush is slipping out at various points, and the buyer is obliged to rebale it before further shipment can be made. Some buyers rebale and properly grade all inferior brush purchased.

There is always a profitable market for good quality brush. There is frequently no profitable market for brush of poor quality. It therefore behooves each grower not only to grow brush of good quality, but to bale such brush by itself. There is a distinct loss in going to the labor and expense of harvesting, curing, baling, and hauling brush of quality so poor that the price paid is not sufficient to cover the cost of production. Furthermore, the inclusion of such low-quality brush with that of better grade will often reduce the price of the whole below a price sufficient for profit.

### OTHER ECONOMIC ASPECTS OF THE PROBLEM.

It must be borne in mind that broomcorn is a limited crop for which there is a regular demand for a definite quantity, slightly increasing from year to year, but not fluctuating very much. Practi-



cally all of the crop grown in the United States is used in North America, only a very small quantity being exported. Production, however, frequently fluctuates violently, due on the one hand to over-production following high prices in any given year, and on the other to a short crop incident to unfavorable climatic conditions in the brush-producing areas. Because broomcorn is a limited crop for which a certain—and no more than a certain—definite demand exists, only those should undertake its production who intend to continue as broomcorn producers and who are able and willing to equip themselves to produce brush of good quality with profit. There are many such growers in the United States who always obtain a fair price for their brush without regard to general market conditions.

Culturally broomcorn is not difficult to produce. To obtain a good quality of brush, however, requires not only equipment but experience. While the operations of planting and cultivating do not usually conflict with other necessary farm operations, broomcorn production should not be undertaken without first determining whether the labor for harvesting the crop will be certainly available. That is, it must be determined, first, whether sufficient labor is in sight, and, second, whether this labor will be required for some other important farming operation at just the time when broomcorn must be harvested. Owing to the enormous amount of hand labor required in gathering the crop, under present conditions there can be little doubt that the most profitable and satisfactory growing will be done in a comparatively small area on farms largely devoted to other crops. On such farms the regular farm labor will handle the broomcorn crop in all stages of production and the special equipment required for baling will not be so expensive as to make its nonuse during the major part of the year a heavy tax upon the owner.

#### METHODS OF MARKETING.

In the small area in Illinois which produces the larger part of the standard brush, production has continued so many years that a very uniform product is derived from year to year and the method of marketing is a simple sale to buyers for the large factories or commission firms. In the Southwest buyers are stationed regularly in the larger centers and purchase the brush from the wagons as it is hauled into the towns.

It is the practice of some manufacturers and commission houses to contract for the growing of certain areas at a certain price per ton. This practice, however, has very frequently resulted in the breaking of a contract and even in litigation. It is charged by the contractors that the growers commonly break their contracts when the market advances above the contract price and adhere to them very tenaciously on a falling market. On the other hand, the growers claim that in the event of a crop of poor quality they are unable to obtain the contract price from the firms with whom the contracts are made. There are as yet few, if any, local organizations of broomcorn growers in regions tributary to the larger producing centers. This doubtless will come when the newer producing areas have been longer settled and there is more community of feeling and interest among the growers. This will result in cooperative purchase of expensive harvesting and cleaning machinery and perhaps in cooperative drying

sheds. It may result also in the employment of a specialist to superintend the curing, grading, and baling of the crop.

Wichita, Kans., is probably the most important receiving and distributing point for broomcorn in the whole country. Here are located enormous warehouses and many commission firms with buyers covering the entire territory of the Southwest, while Chicago, St. Louis, Kansas City, and, to a lesser extent, Oklahoma City, are also important centers for commission handling of the brush.

### BUTTER.

The marketing of butter in the United States is a subject of great importance to the dairy industry. The production in 1909 exceeded 1,600,000,000 pounds and was worth, to producers, over \$400,000,000. Curiously enough, so far but little attention has been paid to the advancement or improvement of this part of dairying, consequently some more or less antiquated customs prevail in the marketing of butter.

More than half of all the butter produced in this country is dairy butter. The market for this class of goods is found, first, in the grocery stores of the villages and of the smaller cities throughout the country; second, in direct sales to private families, hotels, and boarding houses; and third, through commission houses. Usually the best of the butter sold to the grocery stores is afterwards sold to consumers and the rest is shipped to renovated-butter factories, larding establishments, and commission houses, from which it later finds its way to the consumers through the retailers.

Of the various methods of marketing used by creameries it is probable that "sales on contract" is the most popular. Factories using this method have a contract, or at least an understanding more or less binding, with one or more firms or merchants as to the price they are to receive for the butter. This contract price is based on the official quotation of some market. Many creamery managers sell on orders direct to dealers, both wholesale and retail. Others are still marketing through commission houses—ship on consignment—and still others have a local or home trade. The wholesale dealers—brokers and commission men—and the retailers constitute the "middlemen;" that is, they are the links between the creameries and the consumers.

In the larger cities the wholesale dealers maintain a board of trade where butter, cheese, and eggs are sold or offered for sale daily. In the main, there is but little difference in the management of these boards. They are completely controlled by the dealers who constitute the membership. From time to time, rules and regulations for the conduct of business on the board are issued, qualities defined, and grades established. These rules as well as the classifications are changed whenever the interests of the board (the dealers) demand it. The producers have no voice whatsoever in anything that transpires on these boards.

A butter inspector is employed by the board. Whenever there is a dispute as to the quality of a shipment of butter or a refusal to accept it upon the part of the buyer the inspector may be called, and it is then his duty properly to classify the goods in accordance with

the regulations of the board. Generally speaking, however, the board classification is not recognized in ordinary business transactions, for it is generally high in its requirements. It is only when there is some special reason for using it that it is invoked. When practical, the merchants ignore it when they sell to retailers. Formerly it was the custom to quote, or in some way establish, a price each day when the board was in session. Generally, a quotation committee had this matter in charge. For certain reasons this practice has been abandoned by most of the boards. The sales on the board are now in the main relied upon to establish the price. As a rule the transactions are small and, although bona fide, are in reality merely an expression of the dealers as to what they desire the price to be. To this statement there may be an exception in the case of held or storage goods. But this class of produce is nearly always the property of dealers when offered for sale and has long since been paid for, while in the case of "fresh arrivals" the price established affects large quantities of butter which the merchant has not yet settled for and which in reality still belong to the producer or manufacturer.

The storing of butter is done chiefly by wholesale dealers. As a rule, the largest firms store the greatest amounts. Some of them have their private cold storage, while others use the public. These latter also furnish storage facilities to the smaller dealers and speculators. Some of the retailers also store butter—enough for the demand of their own trade during winter or the period of greatest scarcity.

The prevailing prices are given wide publication and the farmers or manufacturers who wish to do so can readily learn what they are. However, the farmers have no voice or influence in the establishing of these prices nor have they any means of knowing whether or not the prices quoted are artificial or out of harmony with existing market conditions. An attempt at cooperative marketing of butter has been made by a number of creameries in Minnesota, but so far as is known little or no good has come from it. No doubt the difficulties in the way of success of such an undertaking are, first, lack of business experience upon the part of the farmers and their creamery managers; second, insufficient capital; third, a natural disinclination upon the part of the farmers to cooperate with one another.

### CHEESE, AMERICAN CHEDDAR.

The annual production of American cheddar cheese in the United States is approximately 275,000,000 pounds. Not over 1 per cent of this is made upon the farms, the rest being produced in factories. The cheese made on the farm is probably made almost wholly for the use of the family and no marketing problems are encountered.

The factory cheese is produced in two main localities, of which New York State is the oldest. The other locality would comprise Wisconsin, Michigan, and a small portion of Minnesota, Wisconsin producing by far the greater portion of the cheese. Marketing conditions in the two localities are decidedly different in the results obtained.

At the present time very little cheese is sold on commission. A number of houses located in New York and Chicago profess to handle cheese on a commission basis, and settlement is made with the seller

in a manner to indicate that the cheese has been sold in this manner. In fact, these houses, which do not do a large proportion of the business, buy the cheese on their own account.

The most distinctive feature of cheese selling is the dairy boards established in a comparatively large number of localities in New York and Wisconsin. About 15 of these boards are in existence and they are located in apparently unimportant business communities, but they are very convenient to the cheese-producing sections. The establishment of these boards has led to the movement of the buying and selling industry away from the two large cities of New York and Chicago, where it was previously located. The firms in these cities first established branch houses convenient to these dairy boards, and finally independent firms were built up or the main offices were finally moved from the large cities. At the present time the largest cheese-buying firms of Wisconsin are all located in small country towns, and the facilities for handling the cheese, such as cold storage, etc., are also located in these same towns.

The dairy boards of New York State and those of Wisconsin are operated on entirely different principles. The boards of Wisconsin are the so-called "call boards," where the cheese is auctioned off to the highest bidder. While the principle is not exactly the same, the results are identical with the results obtained at a country auction, as the utmost freedom is offered for competition. Each buyer has the opportunity of bidding on any or every lot of cheese and may raise any bid already offered. Certain restrictions are enforced to protect both buyer and seller and to prevent as far as possible any attempt at speculation. All sales are bona fide, and the few attempts to make fictitious sales have met with swift and certain punishment. These boards have been in operation for about 15 years. At the present time from 25 to 30 buyers are in weekly attendance at all of the larger boards, and, with the exception of one year, there is no evidence that there has not been the most strenuous competition. This system of selling, in common with all other systems for handling dairy products, has not led to the payment of a premium for goods of extra quality. Another weakness is found in the fact that the highest bidder on any quantity of cheese offered on the board practically establishes the price for all of the cheese sold on the board. This phase of the result of this method of selling has led to numerous attempts on the parts of buyers to fix prices, but, as has been stated, with the exception of one year these attempts have never succeeded.

Perhaps not more than one-fourth of the cheese produced in Wisconsin is offered for sale on the call boards, but the price paid on two of the largest boards—Sheboygan and Plymouth—fixes the price paid to the producer for all of the cheese produced in Wisconsin and Minnesota and nearly all of the cheese produced in Michigan.

The dairy boards in New York State are operated on an entirely different plan. Attempts to establish call or competition boards in New York have failed because a few large dealers apparently controlled the situation. The boards as organized there are a mere formality. Buyers and sellers meet together once a week in the producing season and bargain individually for the cheese offered. At the close of these private deals the buyers report to the secretary of the

board the amount of cheese purchased and price paid. The cheese not sold on these boards, and only a small portion is sold in this manner, is sold by yearly contract, or rather by yearly agreement, as no legal contracts are ever entered into. These yearly agreements are usually made at one-fourth of a cent above the ruling board prices, and the probabilities are that the buyers underquote to the secretary of the board the actual price paid to the sellers or factory men.

For a number of years there was a noticeable difference in these two systems in results or prices obtained for products sold. The competitive buying in Wisconsin gave the seller about 1 cent per pound more for cheese sold in spite of the fact that New York cheese has had the best reputation and the New York State brand in itself has probably been worth one-half cent per pound of cheese.

The cheese not sold on the boards in New York and Wisconsin is handled in a number of ways. The dealers who operate on the board secure a fairly large proportion of this by yearly agreement with individual factories. A number of the larger wholesale grocers buy directly from factories on yearly agreement and the packing industry of Chicago is handling an increasing volume of the cheese made in the United States.

Nearly all of the cheese made in the country is made in the eight months beginning with April. This has necessitated a large storage industry which is handled in different ways. The local dealers of Wisconsin and New York store a fairly large proportion of the cheese on their own account. This is practically the only speculative feature of the entire cheese industry. A large number of the wholesale grocers buy their yearly supply during the heaviest producing months, and store on their own account.

Cheese remains in the hands of the producer for a very short period of its history, the average being 10 days or less, and 2 weeks being the longest time in the large producing communities. Cheese ripens or cures the best in cold-storage temperatures and very few factories are equipped with cold-storage facilities, the factories being too small and the central storages being conveniently located. Occasionally the owner of a cheese factory stores some cheese on his own account purely as a speculation, but it is astonishing how little of this is done. The competitive boards have insured the maximum reasonable price for the cheese sold, and there has been little opportunity or reason for the producer holding cheese for a better market.

Cheese as a rule is sold by the wholesale buyers on a very small margin of profit, from one-eighth to one-fourth of a cent. A large proportion of the cheese which passes directly through the hands of the dealer is handled on a one-eighth of a cent margin. The cheese does not pass through many hands. As was stated, the wholesale grocer may buy direct from the factory, or may buy on the local boards through a local dealer at a small commission. A small portion of the cheese passes through jobbers' hands, but the connection between the man who buys from the factory and the retailer is very close. The items of expense in handling are, for packing, about one-half of a cent per pound; storage, one-eighth of a cent per pound per month, and cheese is seldom carried in storage longer than the 1st of April.

Shipment is nearly always made in refrigerator cars from local markets to Chicago, where refrigerator carload lots are made up for large distributing points in the West and South.

### CHEESE, DOMESTIC SWISS.

Most of the domestic Swiss cheese is made in southern Wisconsin. Factories are owned and controlled by companies of farmers, who empower the cheese maker to sell the cheese, or have a committee of their own membership to do the selling. The buyers of the domestic Swiss cheese are located in the small towns convenient to the producing territory. There were formerly a large number of independent buyers, but a number of these have recently combined to form one large company, the combination probably being made to eliminate competition. There are still a few independent dealers, one or two of which are doing a very large business covering the whole producing territory. Some of these dealers have close business connection with large New York and Chicago houses.

These buyers deal directly with the factory salesmen, usually buying what is called the "run of the shelf" at a fixed price. This means that all cheese of first, second and third quality is taken at the same or an average price. The buyer, of course, makes a close inspection of the cheese on the shelf before making his bid. This system of buying has the same evil tendency which creeps into all systems of handling dairy products in not paying a premium for a product of extra good quality.

Swiss cheese is held in the cellar or curing room of the factory for from six weeks to three months, where it goes through a ripening or curing process. Sales are at infrequent and irregular intervals. The committee of farmers will often hold the contents of their curing room for a number of months in the hope of better prices. There is no buying or selling on commission, the buyer always paying a flat price and buying on his own account. Cheese bought, as a rule, is delivered by the factory to the warehouse of the buyer, where it remains for irregular intervals. These warehouses are equipped with refrigerating facilities.

The most pronounced feature of the handling of Swiss cheese is found in the selling of the best quality of domestic Swiss for imported. There is usually a difference in price between domestic and imported of about 8 cents a pound. It appears as though practically all of the best of our domestic Swiss, probably from one-third to one-half of the total output of our factories, is sold for imported. It can be readily seen that this gives the domestic industry a rather serious handicap, as only the poorest of our domestic cheese is sold as such, and the consumer very naturally assumes that a good quality of Swiss cheese can not be made in this country.

The producing season for Swiss cheese is only about five months, beginning with the 1st of June. Beginning with the 1st of April until the 1st of December, other foreign varieties of cheese, brick and Limburger, are made in the factories where Swiss is made. The selling conditions surrounding the brick and Limburger cheese are almost identical with those surrounding Swiss cheese. Swiss cheese is

sold mostly in the large cities of the country. The large sizes, of 100 to 200 pounds, made in our factories, makes it very difficult to create a demand in the small towns. The expenses for selling are a small charge for packing and necessary freight charges for distribution. Most shipments go by refrigerator cars during the summer months. Cheese dealers who buy direct from the factory, as a rule, sell either to retailers or wholesale grocers. The packing interests of Chicago are doing a comparatively small Swiss business in connection with their other cheese business. This apparently has not attained any proportions at the present time.

### COTTON.

The planter regularly sells his cotton after it has been ginned. It is usually hauled from field to gin, where the seed is removed and the lint is bound into bales of various weights, but averaging about 500 pounds each. The bagging and ties (iron bands) average about 22 pounds per bale, and the cotton itself averages about 478 pounds. The prices quoted in the United States are based upon gross weight. At 10 cents per pound a bale of 500 pounds gross weight would sell for \$50, or at an average of nearly 10.5 cents per pound for the lint itself. The quality of the cotton is learned from samples which the buyer takes from each bale.

Payment to the planter may be made partly in advance; during the growing season he may pledge his crop to obtain supplies on credit from a local merchant or to borrow money from a cotton factor. In such case the crop is usually handed over to the creditor, who sells it and gives the net proceeds to the planter. If the local merchant is the creditor the cotton may be delivered to him at the gin; if the creditor is a factor in a distant market the cotton may be shipped to him and sold on commission.

It is reported that the number of planters who thus pledge their growing crops has been rapidly decreasing, and that it is becoming more general for the planter to market his crop himself. He may sell to a local merchant, or to a traveling buyer who comes to the neighborhood, and the sale may be made shortly after the cotton is ginned, or it may be postponed, waiting for higher prices, the cotton being stored meanwhile. When a planter sells for local delivery he is often paid by means of a "ticket," which he cashes at a local bank. The bank, in turn, collects from the buyer or the firm he represents.

Again, the planter may consign to a factor, with instructions to hold the cotton for higher prices and then sell it on commission. The factor often makes an advance of possibly two-thirds or three-fourths the value of the cotton, and charges the planter interest on this advance. When the sale is finally made, the factor deducts his charges from the amount received and remits the net proceeds to the planter. Sales may be made to operators of mills, thus effecting a direct transaction between producer and consumer. The mill operator, however, may require a certain grade of cotton, and the crop of one planter may include different grades. It is one of the problems of marketing to find consumers for all parts of a crop; if there are several grades of cotton to be sold by a planter he may find one or more mills that will take all the grades he has, or he may sell to

a middleman, whose business it is to collect and classify various grades and to find purchasers for each.

For a number of years farmers' associations have made attempts to fix minimum prices of cotton. In connection with some of these attempts it has been planned to provide cooperative warehouses where planters may store their cotton while waiting for higher prices, and to provide also a cooperative credit system whereby such planters might secure loans on the cotton stored by them.

Market conditions are learned by the planter through newspapers, commercial and agricultural journals, Government publications, and through circulars issued by private concerns. The prices current at a seaport market are of immediate value to the planter; by making allowance for marketing expenses and middlemen's profits he can judge what price is to be offered for cotton in his locality. Government reports give information as to the condition of a growing crop and the size of one already matured.

On a large plantation which is subdivided among a number of tenants the owner may conduct a general store where supplies are issued on credit to the tenants; when their crops are made they may be sold by the plantation owner, who deducts the amount due him and remits the net proceeds to the several tenants.

The buyer to whom the planter sells may in turn sell to a spinner in the United States, to an exporter, or direct to a foreign buyer. In any case, it is usually necessary for the cotton to be shipped from the point of origin to another town or city to be compressed to about one-half of its original size. This is done to save space in transportation and storage.

After a bale is compressed the iron ties are much shorter than before. However, two additional ties are put on the compressed bale, making eight in all; the "flat" bale (the one made in the gin), has only six ties. Additional bagging also may be put on at the compress in order that the bale may not lose in gross weight. However, there is a limit to the amount of tare for which payment is made: New England mills generally refuse to pay for more than an average of 24 pounds of tare per bale, while some South Carolina mills object to compressed bales averaging more than 24 pounds of bagging and ties, and to "flat" bales averaging more than 22 pounds. Exporters sell cotton at its estimated net weight, the estimates depending upon the rules of trade in the foreign market to which the cotton is sold. The Liverpool rules require a deduction of 6 per cent from the actual gross weight, or an average of 30 pounds per 500-pound bale. Additional bagging ("patching") is frequently, if not usually, added to export cotton to prevent undue loss on account of this "six per cent" rule. However, when too much "patching" is put on there are rules of arbitration which enable the Liverpool buyer to avoid paying for at least part of the extra bagging.

The first buyer of cotton, therefore, must make an allowance for tare, not by deducting a number of pounds from the gross weight of the bales nor any sum from the total payment made to the planter. The deduction is made from the quoted price per pound, and probably is made consciously or unconsciously throughout the trade.

After cotton leaves the hands of the planter and the country merchant it is generally bought and sold by members of cotton exchanges,



who may be brokers, merchants, exporters, or spinners. Large wholesale dealers in cotton usually belong to some cotton exchange, where both buyers and sellers can readily find each other, and where bankers are to be found to make loans, transportation men to arrange for shipments by rail or water, and insurance agents to issue policies on the cotton sold. The exchange is an important collector of market news and statistics. There are two general classes of transactions in a cotton exchange—"spot" and "future" sales. "Spot" transactions are those in which the cotton is delivered when it is sold, while in "future" transactions delivery may not be made until several months after the sale. In "spot" sales samples are displayed for buyers to examine before they make their purchases. Cotton sold in "spot" transactions must be actually at hand and delivered to the buyer; but cotton sold in "future" transactions may not be actually delivered at all, owing to the system used in making settlements.

The United States spinner may go for his supplies either to the cotton exchanges, to country merchants, or to planters; and the exporter may go for his cotton to the same sources. The exporter in turn sells through his foreign representative, or "controller," to a foreign merchant or spinner. One of the largest spot markets for cotton in Europe is Liverpool. Bremen and Havre are also important spot markets of international rank.

Of the 17,673,294 running bales produced in the United States in 1911, 10,681,758 bales, or 60.5 per cent, were exported; 2,712,622 bales, or 15.3 per cent, were spun in the Southern States; 2,655,049 bales, or 15 per cent, were spun in the Northern States, and 1,623,865 bales, or 9.2 per cent, remained in store in the United States on August 31, 1912.

About two-thirds of the cotton crop is usually moved from local shipping points within the first four months after picking begins, and all but a small fraction has generally been moved by the end of the following May. Of the total exports for a crop year ending August 31, from 50 to 60 per cent leave this country within four months from the beginning of cotton picking, and from 90 to 95 per cent are shipped abroad by the end of the following May.

The principal items of cost in the movement of cotton from planter to spinner are:

Freight from—

- Local shipping point to compress.
- Compress to seaport or United States mill.
- United States to foreign mill.
- Foreign seaport to foreign mill.

Cost of compressing.

Drayage.

Wharfage.

Interest on money (or credit for goods)—

- Due from planter.
- Paid by country merchant or local buyer.
- Paid by broker or exporter.

Insurance, paid by various owners of the cotton.

Storage charges, paid by various owners of the cotton.

Loss in weight, due to taking out samples.

Expenses of conducting business; for brokers, merchants, spinners' purchasing agents, exporters, etc.

Profits of middlemen.

From a rough comparison of spot prices of upland middling cotton at Liverpool, New York, New Orleans, Galveston, and Savannah with the average farm prices of all kinds of cotton during the six months beginning with November, 1911, it seems that the mean price for the six months at the four United States ports mentioned was less than 0.8 cent above the farm price, an increase of about 9 per cent, and the Liverpool price was about 0.6 cent higher. The average grade of cotton for the crop of 1911 was estimated by Secretary Hester, of the New Orleans Cotton Exchange, to be but slightly below "middling"; hence the Liverpool price for the six months in question was but slightly more than 1.4 cents more than the price received by farmers. This excess was equivalent to about 15 per cent of the price at the farm. Freight charges from local shipping points in the United States to Liverpool would account for more than one-half of this 1.4 cents increase.

In general, it may be said that in regard to thoroughness of organization, economy in marketing, and dissemination of market and crop reports the cotton trade of the United States compares favorably with the trade in any other farm product.

There are, of course, features which it is desirable to improve. Some of these needed improvements may be mentioned here. Better facilities are needed to enable planters to hold their crops for a time, instead of being compelled to sell soon after picking. To help solve this difficulty, warehouses are being established, and it is reported that credit is becoming more easy to obtain.

The question of sales at net weight also is to be considered. Throughout the trade within the United States prices are based upon the gross weight of bales. This means that some kind of an allowance must enter into prices to make up for the difference between the weight of the cotton paid for and the weight actually received. The large allowance for tare exacted by the rules of European markets also gives an element of uncertainty to the trade, which is reflected throughout the entire course of distribution from farmer to spinner. There have been suggestions, if not attempts, to have cotton sold according to net weight throughout the trade. To accomplish this change it might be necessary to have each bale marked in such manner that its net weight could be easily determined, and it might be necessary to have the tare determined not only at the gin but also at the compress.

Another live problem in cotton marketing relates to the use of through bills of lading in the export trade. European importers will pay for consignments of cotton for which ocean bills of lading have been signed and presented, but objection is made to paying for cotton which has merely been started by rail from an interior point. Through bills of lading for consignments originating on a railroad are not regarded as sufficient guaranty that the cotton is actually on its way to Europe, unless evidence is given to show that the cotton has been actually loaded on shipboard or is at the ship's side. The exporting of cotton would be simplified if arrangements could be made by which a through bill of lading issued from an interior point in the United States to a foreign destination would be willingly accepted and cashed by the foreign importer.

## COTTON SEED.

The peculiar commercial history of cotton seed has no doubt had a profound influence on the system of marketing it which has grown up in the United States. Thirty years ago some of the States of the cotton belt were still enacting penalty legislation to regulate the disposal of farmers made of their seed, which, scattered on the public dumps and thrown into streams, constituted a serious menace to health. As late as 1880 less than 7,000,000 gallons of oil were produced in the United States. Twenty years later, in 1899, 93,000,000 gallons were made and in 1909 the production reached 157,000,000 gallons. In 1879 less than \$4,000,000 were invested in the industry using this raw material, while by 1909 something like \$91,000,000 capital unquestionably found profitable investment in the cottonseed and cotton-oil industry. Let us first discuss the various methods by which the farmer disposes of his seed. It usually, perhaps in 80 per cent of cases, passes from his possession at the gin. Ginning in the United States is usually done at one of three places—(1) custom gins, (2) oil-mill gins, (3) privately owned plantation gins.

The commercial ginner charges a flat rate per 100 pounds of lint for ginning, usually about 50 cents. The seed, of course, remains the property of the farmer, but generally custom ginner make a practice of buying and selling both cotton and cotton seed, hence in a very large percentage of cases the farmer parts with his seed to the ginner and for a flat price per ton—the price being determined chiefly by the selling arrangements the ginner has been able to make with the oil mill.

At the present moment farmers are selling seed in various parts of the cotton belt at prices ranging from \$14 to \$20 per ton. This diversity in price is not logically explainable in the great majority of cases on the basis of greater cost or difference in freight rate. In other words, two places equally distant from an oil mill with practically identical freight rates may be \$2, \$3, or even \$4 apart in the price that is being paid the farmer for his seed. Indeed, the writer is familiar with primary markets where it is the regular practice to pay the large plantation owner \$16 per ton for his seed, while the small grower and the tenant farmer receive only \$14 for the same grade of seed from the same buyer. Likewise, in towns where both ginneries and oil mills are located very often the ginner pays \$15 per ton for seed and at almost no added expense delivers it to the oil mill for \$18 per ton. Nevertheless, if the individual farmer brings the seed to the mill himself he receives only the same price that he would have gotten at the gin. Local merchants to some extent also buy cotton seed and accept the same in payment of store bills, shipping to oil mills as soon as they have car lots.

Many planters do not, apparently, appreciate the fact that cotton seed is a valuable product, hence it is often left exposed to the weather, and when wet it "heats" badly, necessitating expensive shoveling or handling by suction, if in a seed house thus equipped to handle it. This applies more pointedly to the eastern cotton country than to the part of the belt west of the Mississippi River. In that area oil-mill ginning has developed most extensively, and independent ginneries doing a custom business have "got to be good" or

suffer from a competition which they can not weather. That is, they are compelled to sell to the particular oil-mill interests that operate in their locality or be forced to meet such a low price for ginning that they can not pay out. Oil-mill ginners under usual conditions make a double profit—the normal and proper return for ginning and the profit on their oil business. The latter is so large that it has been said that they can gin for nothing and still pay dividends.

Some of the oil-milling companies in the Texas-Oklahoma country own outright as many as 50 gin plants. The oil-mill interests are fairly well organized into cotton-seed-crushers' associations, so that they act with a moderate degree of concertedness.

The seed from plantation-owned gins is sometimes sold by the planter direct to the oil mills in car lots when a freight haul is concerned, but more frequently it is sold to local or traveling buyers.

There has been developed also to a small extent on large plantations, especially in the Mississippi Delta, the plantation oil mill. These are usually cold-process oilmills, and their crude product is sold direct to the refineries. In fact, it is believed to be impossible for the private individual owning a small oil mill to contract to have his own crude oil refined at any refinery in the United States. He is forced to sell. The profits in cottonseed-oil milling are undoubtedly quite ample, judging from the lump prices that are paid, the diversity in price between various primary markets, and the readiness of capital to engage in the business. There is real need for a disinterested investigation in the marketing of cotton seed from plantation to the finished oil product ready for consumption. The beginnings of such an investigation have already been made by the Office of Farmers' Cooperative Cotton Handling and Marketing, of the Bureau of Plant Industry. Considerable information has been gotten together and contracts have been established with several oil mills where cooperative work will be taken up as soon as additional funds are available.

The yield of oil per ton of seed may be roughly stated as between 35 and 45 gallons, though yields as low as 30 and as high as 50 are recorded each season. Variation in yield depends on seasonal differences and variety of cotton grown, character of weather, maturing time, etc.

A very little has also been done toward cooperative oil-mill building and operation, the members of the cooperative associations contracting to deliver all their seed to the cooperatively owned mill. These agreements are necessarily ironclad, as the competing oil-mill buyers would soon overbid the home concern and close it down by buying up its supply of raw material. The particular association best known to the writer paid its members \$22.30 per ton for seed at the close of the season in a market that was only giving \$15. One frequently meets, in traveling about the Cotton Belt, buyers who go from gin to gin purchasing seed, both from farmers and ginners and others, and shipping the same to the oil mill they represent.

Primary markets have usually little competitive buying of cotton seed; the price is usually a flat price and all buyers pay pretty much the same. Farmers in certain seasons, especially this year, suffer because of inadequate supplies of freight cars for shipping seed. In several parts of Texas, during the present season, the writer found

farmers compelled to haul their seed home, a number of miles, because buyers would not take it through lack of shipping facilities. Very few industries have fewer middlemen between the raw and finished product than does the cottonseed-oil business.

### EGGS.

At the present time the common method of marketing eggs in the Middle West is, in brief, as follows: The farmer gathers his eggs whenever convenient, sometimes each day, sometimes two or three times a week. The eggs are brought to the house and kept until there is a sufficient number to take to the village or until the farmer makes a trip to the village for some other purpose and takes the eggs along. No particular attention is given to the conditions under which the eggs are kept in the meantime. They may be put in a pantry or cupboard of the kitchen where the temperature is comparatively high, and where the eggs are bound to undergo considerable deterioration in quality or to reach a more or less advanced stage of actual spoiling. Even in those cases where the importance of a low temperature may be realized and an effort made to secure this by placing the eggs in a cellar, there is likelihood that the cellar may be damp and the eggs in consequence become moldy. Likewise no particular effort is made to obtain clean eggs by proper attention to the nests and by frequent gathering or to separate the clean from the soiled eggs when taking them to market. When a nest of eggs is discovered in the weeds or about the barn they are sometimes added to the eggs in the market basket without question as to whether they are partly incubated.

As a result the farmer may start for town with a basket of eggs, part of which are perfectly fresh and wholesome, part of them dirty or smeared, and part of them shrunken or stale or even partly or wholly spoiled. These eggs the farmer takes to the village store and receives for them a certain price per dozen, which is usually given in trade. The village merchant is not a dealer in eggs from choice, but rather because he feels it necessary to take the eggs in order to keep the trade of the farmer. If he does not take the eggs he fears that the farmer will offer them to one of his competitors, and will in consequence be likely to give that competitor the bulk of his trade. For the same reason the merchant believes that he must accept the eggs as they run, good or bad, fresh or stale, clean or dirty, for if he does not his competitors will.

The merchant holds the eggs until he has enough to make a shipment to some egg dealer or shipper from whom he gets regular quotations. The delay here may be anywhere from two days to a week, or even two weeks. Usually the conditions attendant upon the shipment of these eggs up to the time they reach the packing house are such as to cause a still further deterioration in the eggs. After they reach the packing house they are assembled in great enough numbers so that more attention and care is given their handling, and although the eggs go through one or more sets of hands from this point before they are placed in storage or reach the consumer the deterioration which they undergo is usually not so great proportionately.

The above method may be regarded as practically universal for the bulk of the egg trade in the United States. The system outlined is that known as the "case count" system of buying; that is to say, the farmer is paid for the actual number of whole eggs which he brings in, regardless of quality. During the last few years the "loss off" system of buying has been gaining a foothold. By this system the eggs are candled and paid for according to quality. The "loss off" system is much better for the producer for the reason that the low value of the inferior eggs does not effect the price received for the first-class ones. In a few sections of the country producers sell eggs cooperatively. One of these instances is that of the Barnum Creamery Co., at Barnum, Minn., and another the Hickory Creamery Co., at Hickory, N. C. The Santa Rosa Poultry Producers' Association, Santa Rosa, Cal., claims to do a very large cooperative business in poultry and eggs. This association also handles grain. The New Jersey Poultry Association, Vineland, N. J., is said to be cooperative.

In addition to the large output of eggs which enters commerce, there is, of course, a very large trade from the producer direct to the consumer. Small poultry keepers and truck gardeners are found in all cities at the central markets with eggs of their own production, and many of these people do a house-to-house business.

### FLAXSEED.

The production of flaxseed is confined almost entirely to the three States of Minnesota, North Dakota, and South Dakota. The demand for this grain is verily largely from the linseed-oil mills, though small quantities are used for other purposes. Consignments on commission are made by growers of flaxseed in carload lots and shipped direct to the terminal markets. More frequently, however, grain is sold to local buyers for delivery to local shipping points. These buyers may be independent dealers, but more often they are representatives of milling companies with large interests at the terminal points. The principal terminal for flaxseed shipments is Minneapolis. Sales of flaxseed are seldom made at auction either in the region where it is produced or by agents or dealers in the large cities. This crop is not ordinarily sold prior to harvest. Sales are not usually made direct to the consumers, except where mills are located in the immediate vicinity where the crop is produced.

At a considerable number of towns in the three States where flaxseed is most largely grown, cooperative elevator associations have been organized. These associations buy the seed from members and, in some cases, from outsiders as well, and ship to terminal markets where the seed may be sold direct to the consumer, but is more often handled through a commission house. These cooperative elevators usually pay market price and return profits from their transactions to the members in the form of dividends.

Grades and weights are usually determined by the local buyer, the grade being fixed by him and dockage made for impurities, such as dirt, chaff, and foreign seeds. The largest sales by producers are made within a few weeks after the harvest season, usually during the months of September and October.

Flax-seed is seldom sold by the retailer in its original form, but, as already stated, is used almost entirely in linseed oil and its by-products. The linseed-oil mills purchase the seed either direct from the grower through local representatives in the region where the crop is grown, or from dealers at the terminal markets. The manner of handling this grain by commission houses is not different from the manner in which corn, wheat, and other cereals are handled. The principal purchases by mills and factories are made during the two or three months following harvest, after which time the seed is stored in local or terminal elevators until it is wanted for use. The items of expense in marketing include transportation from the farm to the shipping station, maintenance and running expenses of local elevators, transportation from shipping stations to terminal elevators or mills, maintenance of terminal elevators, and commissions.

Flaxseed is not ordinarily stored by the producer for any considerable length of time. It may be stored for a few days or weeks until it can be delivered to the local elevator, or in occasional cases it may be stored for a considerable period waiting an advance in price. After it is purchased by local elevators it is quite often stored for a considerable period, this period varying from a few weeks to six or eight months. Storage, however, may take place in terminal elevators, where its duration is from a few weeks to a year or more, as, for instance, when a heavy crop is produced a considerable quantity of the seed may be stored until after the next harvest to guard against shortage.

Market news at the farm or selling agency is obtained through printed quotations of prices paid at the terminal markets and published in trade journals, the market letters of commission houses, and farm and metropolitan papers, or by telegraphic dispatches from commission houses and others at the terminal market. As flax is a pioneer crop which is produced at little expense, there is usually a slight profit in growing it.

The difficulties in producing and marketing flaxseed at a profit are usually the production of low yields due to poor preparation of the soil, disease, or unfavorable climatic conditions, heavy dockage caused by the presence of weed seeds or other foreign matter, false weights at the local elevator, and too wide a margin between the price paid the producer and that which the seed brings at the terminal market.

Among the elements which can be employed to produce a profit for the grower are good preparation of the soil, the use of disease-resistant varieties, selling through cooperative associations which are well managed, and competitive buying at local points to reduce the margin between country and terminal prices.

## FLOWERS AND ORNAMENTAL PLANTS.

### CONSIGNMENTS ON COMMISSION.

Cut flowers and plants are generally sold direct to the consumer or to the retail florist by the grower, and only surplus stock that can not be disposed of otherwise is consigned to commission dealers. A grower, however, who is located some distance from a large city is compelled to dispose of his stock through a commission dealer. In

such cases the stock is shipped to the dealer who disposes of the stock to the best advantage, charging a percentage for his services of from 15 to 20 per cent on gross receipts. Should the commission man be unable to dispose of the stock the grower loses the entire shipment, in addition to the express charges. Bills are settled monthly.

#### SALES MADE PREVIOUS TO HARVEST.

Frequently a retail florist will visit the growers' greenhouses, and if his plants give promise of yielding good flowers he will arrange to purchase the entire crop for the season, the length of season depending entirely upon the nature of the flowers; but it would generally mean the winter months, from October to April.

#### DIRECT SALES TO THE CONSUMER.

Nearly all flower growers dispose of most, if not all, of their stock by selling direct to the consumer, through the local markets or by having stores of their own.

Flowers and plants are either sold direct to the consumer, sent to commission dealers, or through local florists' exchanges. There are no cooperative selling associations. The stock handled by commission dealers is generally sold to retail florists only and not to the consumer.

Flowers are generally graded first, second, and third, depending on the length of stem, excellency of color, and size of flower. Grades are determined by mutual agreement among the florists and growers. No hard and fast rules have been adopted in regard to grading, therefore they vary materially in different cities.

Sales of flowers and flowering plants are heaviest through the winter months, from October to April, and are specially heavy at all holidays, such as Thanksgiving, Christmas, and Easter.

#### STEPS IN MARKETING.

Flowering plants and cut flowers are, as pointed out above, generally sold direct to the consumer. Where a grower is so located as to be unable to dispose of his stock in this way, he ships direct to a commission house or to the retail florist. If to a commission house, the stock is then sold to the retail florists for what it will bring and a commission charge of 15 per cent made for flowers and 20 per cent for plants on gross receipts. All accounts are settled monthly.

A type of such houses would be a large retail florist, who either grows no flowers or plants or has to make large purchases of stock during the season to help out his own supply. In such cases the grower or his agent generally visits the store of the retailer and takes orders in advance for stock or orders are sent by mail or telephone to the grower. On receipt of cut flowers they are unpacked and placed in large vases containing water, placed in a refrigerator or cold-storage room, where a suitable temperature can be maintained. After the flowers are sufficiently developed they are then offered for sale. There is no large organization required to handle this business, except clerks, decorators, and delivery wagons.



A commission house which deals in cut flowers is fitted with large refrigerators or cold-storage rooms in which to place the flowers when received from the grower in order to keep them in good condition as long as possible. On receipt of stock from the grower he is credited with the number and kind, and when sold is sent a memorandum showing the total gross receipts and the commission charged. Accounts are settled monthly or semimonthly, as desired.

Many commission houses have branch stores in other cities and can reship stock to such places where a shortage occurs. In dealing with cut flowers, however, it is very risky to reship, owing to their extremely perishable nature. In fact, the perishable nature of the stock is such that it can not be shipped long distances and arrive in condition to be used or to compete with stock grown in the neighborhood. The ordinary florist flowers that are most commonly used would be almost worthless if in transit more than two days.

Very rarely are cut flowers or flowering plants sold at auction.

In all cities having public markets flowers are sold by many of the growers from their own stands direct to the consumer.

Season for cut flowers and flowering plants lasts all year, but sales are heaviest from October to the end of April.

#### EXPENSE IN MARKETING.

If the grower sells his own produce direct to the consumer, the cost of marketing will be very light: simply the necessary means of transporting the stock to the market or store and wrapping the flowers in suitable paper or furnishing proper packing boxes so that the purchaser can carry the flowers home. Where the stock is consigned to a commission house, the first expense is incurred in the purchase of suitable shipping boxes, made of light, strong wood, that can stand the rough handling of the ordinary express shipment. The express charges on the stock and express charges on return "empties"; and the commission dealers' charges of 15 per cent to 20 per cent on gross receipts. The retail florists add from 35 per cent to 250 per cent, depending on the location of his store, rent, whether orders are delivered by horse, vehicle, or automobile, etc. An item of expense that is rapidly increasing is the matter of flower-delivery boxes and the cost of delivery at the residence of the purchaser. This in recent years has increased from 8 to 20 cents per package, the latter cost being where delivery is made by automobile. This increase is only with the stores who cater to the wealthy. The cost to the florist doing business with the poorer classes would still remain about 8 or 10 cents per package when most of the stock is carried home by the purchaser.

#### STORAGE AND TRANSPORTATION.

Owing to the perishable nature of flowers they can not be stored for any length of time. Flowers and plants must be marketed when the blooms are at their best, and therefore can not be kept in storage.

Flowers may be kept from three to six days in refrigerators, but not longer, the length of time depending entirely upon the nature of the flowers.

### GENERAL SUMMARY.

The grower generally subscribes to one or more trade papers, which keep him informed of flower stock quotations from the various large cities. In this way he can take advantage of such quotations and ship to a market where stock is low and prices high. If, however, the city is some distance away and can not be reached within 24 hours, his stock will arrive at destination in rather poor condition and his returns are apt to be low in consequence and not likely to pay for the increase in cost of transportation.

A difficulty that all flower shippers have to encounter is the serious danger from frost. Flowers are generally shipped during the winter months and are nearly always exposed to the danger of frost injury that would render them worthless. This danger is greater with flowers than with other merchandise liable to frost damage. To arrive in good condition flowers must be sprinkled with water around the stems and foliage; therefore the packing or protecting material is likely to get wet, and when in this condition it proves of little protection against frost.

Up-to-date greenhouses, methods of growing, good soil, and careful attention to the wants and requirements of the plants are among the elements of success in this industry.

Flowers and flowering plants can be purchased at a reasonable price at present, except at the large retail stores, where the methods of delivery are so costly and store decoration so elaborate that the cost of the stock handled is doubled or trebled to pay for the same. Whenever flowers or plants can be purchased at the public markets direct from the growers the price is approximately from one-half to two-thirds what the retail stores have to charge, owing to the difference in rent and additional cost in handling.

### FRUITS OUTSIDE CALIFORNIA.

#### APPLES.

The annual apple crop of the United States is larger than the combined crops of all other fruits, excluding the citrus fruits, and is more widely grown than any other.

Commercial shipments of various varieties are made from the orchards in different parts of the country from early June until the middle of November on the average, though climatic conditions in different seasons may make the harvest two or three weeks earlier or later than these dates. September, October, and November are the months of heaviest shipments of winter apples, which constitute the bulk of the crop.

Probably the largest part of the crop is bought "on the trees" delivered on the packing table, or "f. o. b. cars," immediately before or after harvest, by representatives of large fruit receivers or brokers and shipped direct to their home markets, distributed to jobbers or agents in other market centers, or put into cold storage. The next larger portion of the crop is shipped by the grower to commission houses in large cities. Practically all of this crop, except a very small portion from California and some of the northwestern States,

which is sold at auction in the larger cities, is disposed of at private sale either in the cars, unloaded at terminals of the transportation companies, or at the receivers' stores. Last year an innovation was introduced by one of the largest brokers in New York City, who sold consigned lots of Hudson River Valley apples in barrels at public auction, and it is understood very satisfactory results were obtained. Jobbers and fruit brokers were the purchasers at those sales as at the citrus auctions.

There are several instances of growers disposing of more or less of their crops direct to consumers or retailers in near-by markets. Such deliveries are usually made by team, and are therefore limited in extent of territory covered. Some such shipments are by express and local freight on steam or suburban electric railroads. If, as seems to be probable, the limit of weight of parcels-post shipments shall be increased, a large field will be opened to the fruit grower for the shipment of his product direct to consumers.

In order that the producer should obtain for his product as large a share as possible of what the consumer pays, it is necessary that the number of middlemen who handle his shipments should be reduced to the minimum. This is one of the functions of the cooperative shipping associations—to put their shipments on the markets at actual cost to themselves, rather than to pay some one else for doing it.

The benefits to be derived from such organizations are many. Small growers can make combined shipments in carload lots, and through the volume of their business the associations can secure minimum transportation rates. They can have agents in the important markets, and by daily telegraphic communication with them are enabled to divert cars already en route to places where the demand is greatest. Growers are advised when to hold and when to pick their fruit. Association managers know the actual supplies of their respective communities, and by working in harmony can make equitable prices for their shipments. By buying picking apparatus, spraying materials, fertilizers, etc., in large quantities, the associations are able to effect considerable savings for their growers. However, several conditions operate against the successful establishment of such organizations in many localities, one of the chief of which is the growers' distrust and jealousy of those intrusted with their management. Men suited to such work are hard to find and difficult to hold, and many associations have failed on account of need for them.

In the Western and Northwestern States there are several organizations which cooperate in packing their fruit. By gathering a large quantity of fruit under one management and packing it attractively in grades which are rigidly maintained some of these organizations have been able to make an enviable name for their product and even to sell it by grades without the purchaser having seen it. The Hood River Apple Growers' Union, of Hood River, Oreg., is the most striking example of this type of organization. These organizations have not, as a rule, attempted to distribute their fruit to the markets of the country, but have sold to buyers at the packing houses. This season a few of these growers' associations are selling their product through two or three marketing organizations which make a business of the disposal of fruit and vegetables for individual growers or associations throughout the country. The marketing methods of these distributing agencies are similar to those of the Florida Citrus

Exchange, described elsewhere in this article, in that close communication is maintained by the main office with the shippers and the markets throughout the country. However, they are in no sense co-operative with the shippers, but either make a flat charge per package for their services or operate on the commission basis.

Except in the case of a few cooperative associations that have established standards for grades in packing apples, this matter is one in which the individual grower exercises his own judgment and hence it is necessary for the purchaser to see each lot of fruit before he can make a safe and fair offer for it. Three years ago a grade law for apples was passed in Maine, a year ago one was passed in New York State, and this year a similar law was passed by Congress to regulate interstate and foreign shipments. These laws established a standard barrel and defined three standard grades for apples packed in barrels which may be used by apple packers. It is not compulsory that these grades be used, but if apple barrels are branded with the designations of these grades the fruit contained therein must conform to the requirements of the law and the package must also bear a statement showing the name of the variety, the locality where grown, and the name of the packer or the one by whose authority the fruit was packed, and the package branded.

A great many apples are put into common or cold storage by the producer as soon as harvested, and are held for higher prices later in the season. Jobbers also put large quantities in cold storage in the cities and usually have apples to offer their trade the year round.

A considerable quantity of apples are annually exported, England taking by far the largest part of them, with Scotland and Germany receiving much smaller proportions. Brokers and exporters' agents handle the majority of this fruit for the growers or for jobbers. Many buyers ship direct to the auction markets in large foreign cities or to agents in cities that have no auctions. Some of the cooperative organizations have also made very successful shipments direct to foreign auction markets or to fruit brokers abroad. The average yearly export for five years 1907-1911 has been 1,200,000 barrels.

#### CITRUS FRUITS IN FLORIDA.

The first shipments of citrus fruits from Florida go forward in the latter part of September and the last shipments are not made until the 1st of May or later. The period of the greatest activity in this line is from about December 1 until March 1.

Several methods, differing widely in character, are followed in moving this crop to the various markets of the United States and Canada. There are a few striking instances of growers conducting very successful mail-order businesses, shipping fancy fruit by the box direct to the consumer at a flat rate, express prepaid. Orders are obtained in response to personal letters or from widespread advertising in magazines. Only fancy, well-matured fruit is sold in this manner. It is attractively packed, reaches the consumer in the shortest possible time, and, by its freshness and soundness, creates an impression which results in an increased demand from the purchaser and his friends.

The returns to the grower are very good in these cases, for his price per box includes the profits ordinarily obtained by the middlemen

who are usually concerned in putting the fruit into the hands of the consumer, and his rate is the same throughout the season.

Quite a quantity of fruit is purchased "on the trees" or delivered "f. o. b. cars," by buyers acting for their personal accounts, or as agents for jobbers in some of the large cities. In these cases the grower is assured of a certain price for his fruit, and the buyer takes the risks of making or losing on his purchases. These risks are often more fancied by the grower than they are real to the buyer, who usually has a purchaser waiting for the fruit, or believes from market reports from his office that a profit can be made on the shipment. Sometimes market conditions change unexpectedly and shipments are sold at a loss, but for the business of a whole season the profits usually greatly exceed the losses.

Some of this fruit is purchased before being harvested—sometimes several months ahead of that time, either at a stated price, or at a price to be agreed upon at the time of delivery. Where such sales are made on the basis of the number of boxes delivered to the buyer, the time of delivery is usually specified, for the grower is bearing the risk of losing his crop by frost damage, and is interested that it be harvested before such loss shall occur. Sometimes these sales are made for a lump sum for the crop, and then the buyer is risking the frost-damage loss. In some instances, growers are indebted to a receiver for money borrowed to buy their orchards, or to care for them; and, in these cases, they are under contract to ship only to that receiver.

Probably more fruit than is marketed in any other one way is shipped to commission houses in large cities. Many of these receivers have branches or agents in several cities, and may divert a shipment while en route to some other place than where it was first billed, if market conditions warrant such an action. There is one strong commercial shipping house, which owns or controls a great number of packing houses throughout the State. This concern receives picked fruit, or will pick and haul it to the packing house for the grower, prepares it for market, ships and sells it, and the charge for this service is stated to be actual packing house expenses plus 10 cents a box for selling. The firm has offices or agents in 175 markets in 42 States, and, by close telegraphic communication between these agents and the main office at Jacksonville, aims to accomplish effective distribution of their shipments.

Probably the large majority of commission men buy and sell for their own account, in addition to disposing of produce consigned to them. Several of them also own citrus groves or other fruit orchards, and market the crops from them. This condition is becoming more widely practiced, and is of grave concern to the growers dealing with such houses; for, if the market should be poor or glutted at the time of the arrival of their fruit, it would be only natural for the dealer to dispose of his own fruit first, or to the best advantage, and sacrifice the lots consigned to him by others.

For the grower who is interested to get full value for his fruit rather than to allow an intermediary to profit from the sale of it, the above-mentioned marketing methods are more or less unsatisfactory. It is manifestly impossible for each grower to market his own fruit, on account of the necessity for a sufficiently broad distribution of it to avoid glutting and overstocking the markets. The

logical way to overcome this difficulty is for the growers to combine in a cooperative organization sufficiently strong so that it can afford to have agents of its own in the principal markets, and thus keep in touch with market conditions throughout the country. Such an organization, the Florida Citrus Exchange, modeled upon the California Fruit Growers' Exchange, is operating in Florida. The first season after it began business, 1909-10, it handled about 25 per cent of the crop, the second year 19 per cent, and the last year only 17 per cent. It has been very successful in obtaining increased prices for the fruit which it has shipped, but, on account of the small amount of fruit handled, its operating expenses are understood to have exceeded its income. Strenuous efforts were made this past summer to increase the membership of the exchange, and about 35 per cent of the crop is understood to have been "signed" for the present season. Had it not been for this assurance of increased business this season, the exchange would probably have discontinued operations, and there is no doubt but that such a course would have been a great misfortune for the citrus industry and the general prosperity of the State.

Under the exchange system, a group of growers in a restricted locality organize themselves into a legal association, for the purpose of owning and operating a packing house. In some instances, the fruit of an association is packed in an independent house, but such an arrangement is never satisfactory, and it is only resorted to when the association has insufficient fruit to warrant operating a separate house or when they are financially unable to do so. The associations in a county or similar region unite to form a subexchange, each association selecting one of its members as a subexchange director, and these directors choose a manager for their organization. These directors also choose a representative on the board of directors of the main exchange, who in turn elect their own officers, including a general manager, sales manager, cashier, and traffic manager. Thus, this organization is one of the grower, by the grower, and for the grower.

The exchange has exclusive salaried representatives in several of the large cities, and has agents working on a commission basis in a great many other places throughout the country from Seattle to Boston and into Canada. By telephone and telegraph, the exchange keeps in close touch with its associations and its representatives and agents in the various markets, and can direct its shipments to places where prices are good, and advise its growers to pick or hold their fruit, according to market conditions. Except in cities where this fruit is sold at public auction, no sale is made without confirmation of price by the association shipping the fruit in question.

Each shipper or packing house establishes its own standards for grading, and hence it is necessary in most cases for the buyer to see the fruit before he can make a fair offer for it. Several houses have well-established brands which are carefully kept up to standard and purchases of them are often made simply by name.

By far the larger part of the crop is shipped by rail, but some of it goes to Baltimore and New York by steamer from Jacksonville. The principal diversion points on the railroads are Jacksonville, Fla., Waycross and Atlanta, Ga., and Potomac Yards, near Alexandria, Va., but shipments may be diverted at many other points without extra charge.

Marketing expenses include picking, hauling to the packing house, grading, a charge for the box and wraps, packing the fruit, loading it into the car, freight to destination, and charge for selling, including an auction fee in auction markets. Exchange shippers also have to pay a small amount per box to defray the expenses of the association, subexchange, and exchange organizations.

In the transportation of Florida citrus fruits, it is necessary to use ventilated refrigerator cars. A very small per cent of the fruit is iced for transportation, but on account of the cold weather in the Northern States during the greater part of the shipping season, it is necessary to use these insulated cars to avoid freezing the fruit in transit, and in many shipments it is necessary to use regulated ventilation to maintain the desired temperature in the cars.

In a few of the larger markets, including Baltimore, Boston, Buffalo, Chicago, Cincinnati, Cleveland, New York, Philadelphia, Pittsburgh, and St. Louis, a great deal of the fruit is sold at public auction. The auction company unloads the fruit which it is to sell, displays it for selling, and reserves the right to cart it, for an additional charge, as ordered by the buyer. Jobbers and fruit brokers are the principal purchasers at these sales, and they in turn sell to the local retailers or large consumers, or ship to out-of-town jobbers or retailers. A few receivers in the large cities, and all selling agencies in the smaller places, sell at private sale in carload lots or less amounts to jobbers, retailers, or large consumers.

Florida citrus fruit is not stored by the producer before shipment, but is frequently put in cold storage for a short period by the receivers in large cities when it arrives at the time of a very depressed market. Jobbers often store fruit at a time of low prices and hold for a better market, and near the end of the season they sometimes store, so as to have an available supply when there is none arriving from the producers.

#### CITRUS FRUITS IN LOUISIANA.

Citrus fruits are grown in Louisiana to a limited extent, and part of the product reaches some of the markets of the Central States. The larger part of the shipments is sent to commission firms or are purchased at the groves or packing houses by agents and forwarded to promising markets, as is explained regarding Florida fruits. The bulk of this fruit is shipped from about the middle of October until the 1st of February.

#### OTHER FRUITS.

Practically the full crops of all other fruits grown to a commercial extent in the United States are marketed by shipment from the growers to commission houses in the cities or by purchase from the grower by buyers acting for their own accounts or as agents for receivers or brokers. In many instances the commission houses send representatives to the producing sections to solicit as large a share of the shipments as possible for themselves. In several localities there are cooperative associations which handle one or more kinds of fruit through some or all of the handling operations necessary to move it from the trees to the markets. In Washington and Oregon most of

the organizations which handle apples also pack pears, peaches, plums, and prunes, and sometimes grapes, cherries, berries, and vegetables. Similar organizations handle apples and prunes from Idaho, peaches from Utah, apples, pears, peaches, and berries from Colorado, peaches from Georgia, strawberries from North Carolina, etc. The fruit may be picked by the grower or by a picking crew working under the direction of the association. Usually a rate per package is made for grading and packing the fruit, and at the end of the season any excess remaining above the cost of operating is prorated back to the grower or returned as a dividend on his stock.

The strong commercial packing and shipping house which is described under the marketing of Florida citrus fruits also handles a great many of the pineapples from the east coast of Florida, and similar distributing operations deal in other fruits in other parts of the country, notably in California, Oregon, and Washington. These concerns will either ship or pack and ship fruit on commission or at a specified rate per package, varying with the kind of fruit.

The season of the greatest movement of pears from the orchards is during August, September, and October; peaches move in large quantities from different parts of the country during June, July, August, and September; plums and prunes are in heavy supply during September and October; cherries are plentiful in June and July; grapes are abundant from August until November; strawberries are in season in different localities from March until July; raspberries, blackberries, currants, and other small fruits are harvested from June until August; cranberries mature in September and October; and the Florida pineapple season is in May and June.

Except for short hauls to local markets, practically all these fruits are moved under ice in refrigerator cars. The very perishable small fruits are shipped to distant markets by express, in small refrigerated cases called "pony refrigerators." These cases are usually the property of the express company which carries them, and an additional charge is made for their use.

Pears are held in cold storage to a considerable extent, but relatively much more by the receivers and jobbers in the market centers and less by growers than is the case with apples. Some dealers hold pears throughout the year, so that they are able to supply their trade continuously from one season to another. Peaches and cherries are often stored for a short period by receivers or jobbers to carry them out of a depressed or overstocked market. Cranberries are held in storage for several months for consumption during the winter months. Practically none of the other fruits intended for consumption in the fresh state are put into storage.

Sales of these fruits by receivers or brokers are usually at "private sale," except in the case of most of these fruits from the Northwest, Utah, and Colorado, and pineapples from Florida, which reach the large eastern markets, where they are sold at auction. In a few of the largest markets the transportation lines establish a public market place for the private sale of fruits which arrive in large quantities over their lines. In this way Georgia peaches are unloaded at the piers of the Pennsylvania Railroad in New York City, beginning at about 8 o'clock at night, selling begins at 1 o'clock a. m., and the



pier is cleared of fruit in time for the handling of outgoing freight in the morning.

As explained in the discussion of marketing the apples, it is necessary that cooperative organizations should become more widespread and centralized before the grower will be able to obtain the fullest value for his products. A wider distribution of shipments, with consequent fewer overstocked markets, is one of the principal benefits to be derived from such organizations.

A considerable quantity of pears are annually exported by brokers and receivers, and several successful shipments of fancy peaches have recently been made to English markets. There is also a growing foreign trade in cranberries, but practically none of these other fruits are exported except in comparatively small shipments into Canada and Mexico.

### GRAIN.

The methods of marketing corn, wheat, oats, barley, and rye are practically the same from the time the grain leaves the farm until it is sold by a commission man, merchant, or exporter in a primary or seaboard market.

There are two distinct marketing systems for grain in the United States. One system prevails east of the Rocky Mountains and the other system west.

#### EAST OF THE ROCKY MOUNTAINS.

East of the Rocky Mountains grain is regularly handled in bulk, except in some localities where it is hauled from farm to shipping point in sacks, to be handled in bulk soon afterwards. It is usual for the farmer to sell his grain at a country elevator or mill, although he may load a car consigned to a primary market. In any event he usually delivers his grain to a neighboring elevator, where it is either purchased from him or stored at his expense. The prices paid the farmer at the country shipping point are based upon reports received from primary markets. The prices quoted from these markets are for specific grades, and the local buyer forms his own opinion of the grade of the grain he buys. There are three kinds of country elevators, especially in the western part of the North Central States: Line elevators, independent, and farmers' elevators. A line elevator is one that belongs to a system operated under one management, which controls elevators at primary markets. Thus, a large merchant who sells in a primary market direct to millers and exporters may buy, through his line of country elevators, direct from the producers. Independent elevators, as their name implies, are operated by persons not connected with these large elevator systems. Farmers' elevators are owned and operated by associations of farmers. They are especially numerous in Minnesota, where there were 224 in 1910; and also in North Dakota.

Current news of the grain markets is readily secured through daily papers, trade journals, and circulars issued by large dealers. News of crop conditions is collected and disseminated both through the Government and through private commercial agencies.

## KINDS OF SALES.

From the country elevator grain usually goes to the primary market, which may also be a seaboard market. For instance, it is by no means uncommon for the country elevators in Ohio and points east to ship directly to New York, Philadelphia, or Baltimore rather than to Chicago, Toledo, or Cincinnati. On the primary market the line elevator sells through its own representative. The farmers' elevator and the independent elevator sell through a commission man, who is a member of the grain exchange at the market in question. The prices received for such sales are called "spot" or "cash" prices to distinguish them from the prices named in "future" transactions. There are three leading methods of selling cash grain in a primary market. One of the most common is the sale "to arrive," which is made while the grain is still at the country shipping point. The sale is made with a requirement that delivery be made within a certain specified number of days. Another method of purchase is "on track," when the grain has reached the primary market and is still in cars unloaded. In either of these cases the buyer may decide to forward the commodity to some other point than the destination originally selected. A third method of purchase in a primary market is when grain has been placed in an elevator at that point; these sales are called sales of grain "in store." Since these various methods of purchase have varying degrees of usefulness, the prices for each form of contract are usually quoted separately in the published market news. When a car of grain reaches a primary market it is regularly opened and inspected, either by authority of the grain exchange of that market or by authority of State officials. Among the States which inspect grain at primary markets are Illinois, Missouri, Minnesota, Kansas, and Washington. In some States the weighmaster also is a State official, but more frequently the weighing is done under the supervision of a grain exchange.

There are two kinds of elevators at a primary market, a public and the private elevator. Public elevators, as their name indicates, are open to the public, and a delivery of grain made to a public elevator in a primary market is accepted as delivery to the purchaser at that market. Under State inspection all public elevators are under the jurisdiction of the inspectors, while private elevators are not. An elevator may be made part public and part private by designating certain of its bins as public bins and reserving other bins for the private use of the elevator managers.

## EXPENSES OF MARKETING.

The farmer regularly sells his grain for cash; hence the grain buyer is required to furnish a considerable amount of capital. Much of this he may have to borrow. The country shipper often obtains an advance on a consignment amounting to as much as 90 per cent of its value. A commission dealer who makes this advance, of course, charges interest. The farmer who stores his grain may borrow money for present needs, pledging his elevator receipts as collateral. In like manner terminal elevators and persons storing grain there frequently borrow money from banks, pledging as collateral the warehouse

receipts or inspection certificates, which show title to the grain. The principal items of cost in marketing grain from the time it leaves the farmers' hands until it is sold by a member of a grain exchange at a primary market are:

Freight, inspection, and weighing.

Switching.

Reinspection when required.

Storage.

Insurance.

Commission.

Interest.

Profits of middlemen.

A grain elevator may serve not only to store and transfer, but also to clean and mix the grain stored. As it comes from the farmer, a wagon load of red winter wheat may be just good enough to be classed as No. 2, or it may be very good for No. 2, but not quite good enough for No. 1. Hence an elevator man who buys a good quality of No. 2 wheat may mix it with a good quality of No. 3 wheat, and the mixture may be good enough to come within the No. 2 grade. This gives an opportunity for the dealers to make additional profit. This applies to corn, oats, barley, and rye as well as to wheat.

#### EXPORTERS.

Exporters usually are located at seaport markets, but in a number of cases they have extended their business to such primary markets as Duluth and Chicago. Here they buy from commission men and other members of grain exchanges. A well-organized firm of exporters will have its agents along the various transportation routes in the United States and in Europe. European representatives will make sales, while the transportation agents of the exporters will report on conditions affecting freight rates and service, in order that the exporting firm may know which route for the time being is cheapest and best. At the seaboard markets there are large dealers who buy from the primary markets and sell to millers, jobbers, and retail merchants.

When an exporter loads a consignment of grain on shipboard and receives a bill of lading, he frequently collects the amount due him through a draft on the consignee, the bill of lading being attached to the draft. There are two principal ways of selling grain exported from the United States Atlantic and Gulf ports to Europe. Usually wheat shipped from Atlantic seaports is sold at a grade mentioned in the inspection certificates. A consignment of wheat certified to be No. 2 red winter when loaded on shipboard, say, at Baltimore is paid for as such by the English importer. Where there is considerable risk of grain deteriorating in passage, as, for instance, grain from Gulf ports of the United States, sales are made on what are called "rye" terms, the quality being determined when the grain is delivered at the foreign port.

#### GRADING.

Grading at terminal markets is done either by a board of trade or, as in Illinois and Minnesota, by State officials. In determining the grade of grain received or shipped by rail, the unit of quantity is a car-

load, except where a car is divided by a partition and contains two different kinds of grain. In many places it is the custom for the inspector to go from car to car, taking samples and determining grades at the same time. He makes a record which identifies the car and gives the grade which he has assigned to it, and takes a sample with him from each car. Provision is made for an appeal from the decision as made by the inspector.

A method adopted by the State inspectors of Minnesota and Illinois consists in having a force of samplers distinct from the inspectors. The samplers go from car to car, taking representative lots of grain and marking each sample with the number of the car and the road to which it belongs. These samples are sent to the office of the inspector, where grades are determined and records made. Certificates are issued by the State inspectors which show the grade of each consignment of grain inspected and received into public elevators. These elevator certificates are negotiable and are exchanged as evidences of transfer of ownership when the grain they represent is bought and sold. When a given lot is delivered from an elevator, the certificate representing it is canceled and a new certificate, showing the grade and quantity as determined when the delivery is made, is given to the shipper.

In Minnesota the State appoints the official weighmasters at the terminal markets of Duluth and Minneapolis. At a number of other large centers the weighmaster is an official of the board of trade. The weights, as certified by the weighmaster, are those according to which sales are made.

#### SALES BY SAMPLE.

One of the largest cash grain markets in the United States is Minneapolis. Here much grain is sold by sample, although the grade as authoritatively fixed may enter into the transaction. When a sale is made on the basis of a sample the purchaser takes one half of the sample and the seller retains the other. In this connection it is worth noting that in addition to the State samplers and inspectors, there are at Minneapolis private samplers who are authorized by the chamber of commerce to furnish samples from the various cars received to members of the chamber of commerce who may desire the samples. Selling by sample is also common in cash transactions at other markets, and the tables containing samples are part of the usual furnishings of the "floor" of a board of trade.

#### HOW GRAIN IS HANDLED IN TRANSIT.

##### HAULING IN WAGONS.

The grain crop of the Great Lakes region, as of most other parts of the United States east of the Rocky Mountains, is handled in bulk. The farmer regularly hauls his grain to the local shipping point without the use of sacks, and it is by no means uncommon for the grain to be loaded into the wagon bed directly from the thrashing machine and hauled at once to the local shipping point. Here are usually scales which are used to dump the wagon after the load is weighed. In using these appliances the end gate is taken out, the

wagon tilted backward, and the contents dumped into a pit, whence they are carried by mechanical conveyors to the bins of the elevator.

At some points farmers combine their produce to load a car directly from wagons and sell the grain in a distant market in preference to the one afforded by the neighboring elevator. Throughout the North Central States two horses are the usual number for a wagon, and the usual load of grain is approximately one-twentieth of a carload. According to data gathered in 1906 through correspondents of the Bureau of Statistics of the Department of Agriculture, the average loads actually hauled in the North Central States were 3,077 pounds of wheat, 2,758 pounds of corn, 2,766 pounds of oats, 2,977 pounds of barley, and 2,676 pounds of rye.

#### ELEVATORS.

The country elevator, which receives the grain from the farmer, loads it into a railroad car through spouts which are supplied from the bins either directly through force of gravity or by belt conveyors. At the terminal elevators where the car is unloaded the grain is taken out by means of large scoops pulled by machinery, but placed in position and guided by hand. It is common for the grain to be received from the car through a grating into a pit at the bottom of which are belt conveyors. From the pit the grain is carried to the top of the elevator, where it is weighed in large scales holding possibly 500 bushels each. After being weighed the grain is transferred to the bins below, from which it may again be taken by gravity or by moving belts to other parts of the elevator or to the chutes through which it is delivered to cars or vessels.

In order to increase the storage capacity it is a common practice to build large tanks holding perhaps 60,000 to 80,000 or even more bushels each. These tanks are located alongside of the "working house," as the main elevator is called, and are filled from the top by a belt conveyor and emptied from the bottom by a similar arrangement.

In addition to serving as a place of storage and as means of transfer for grain the elevator is also used both to clean grain and to mix different kinds, or rather different grades of the same kind.

#### CARS AND VESSELS.

When a car is to be used for grain, boards are placed across the doorway, forming a barrier as high as grain is to be loaded inside. When ready to load, the car is hauled alongside the elevator and a spout put through the door above the top of the boards. Meanwhile the grain, having been carried up to the scales, is delivered through the spout into the car. The time required to fill a car, if conditions are favorable, is very short; the average for a number of cars, as observed in Buffalo by a representative of this department, was 10 minutes each, including the time required to move one car out of and another into position under the elevator spout. The moving was done by means of a cable operated by machinery in the elevator. The actual time required for the contents of an elevator bin of about 500 bushels to discharge into a car was from two to three minutes. These cars were loading with corn and there was no difficulty in putting the required amount within the space afforded; but on the same

day a car was loaded with oats weighing, it was said, only about 28 pounds per measured bushel, and, as 1,700 bushels of 32 pounds each were to be shipped, much difficulty was experienced. When the space at the car door was nearly full the stream from the scales was stopped and the pile of grain shoveled back toward the ends of the car and piled up toward the roof. This tedious process extended the time of loading to about one hour and a half.

When loading a vessel at western lake ports, as Chicago or Duluth, a number of spouts or legs may be used, one for each of a number of hatchways of the vessel. When a car or vessel is being loaded at such markets inspectors watch closely the condition of the grain as it passes from the elevator. Occasionally loading will be delayed on account of the inspectors requiring the elevator superintendent to stop delivering grain until it is cleaned sufficiently to be classed with the grade to which it is claimed to belong.

After some grain has been run into the hold of a vessel it is leveled off by men using shovels. This process, called trimming, is practiced on ocean vessels and canal boats as well as on the lake carriers.

In loading canal boats at elevators but little trimming is required when a device is used for directing the stream of grain from the elevator spout into the various corners and irregular spaces of the hold. It takes about an hour under ordinary conditions to load a canal boat with grain, the load amounting to about 8,000 bushels.

Lake vessels are unloaded at Buffalo by means of spouts or "marine legs" which are let down into the hold and through which the grain is drawn up into the elevator. Scoops pulled by mechanical power and guided by hand are used to move the grain from different parts of the hold to the marine leg.

#### BOAT LOADS OF GRAIN.

From the records of the Duluth Board of Trade it appears that 400,000 bushels is not an unusual cargo of grain. November 20, 1908, a vessel cleared from Duluth Harbor with 321,000 bushels of flaxseed and 141,374 bushels of oats, making a total cargo of 462,374 bushels. The same vessel cleared November 4, 1908, with 413,930 bushels of wheat, and May 2 of the same year with 212,000 bushels of wheat and 195,000 bushels of flaxseed. On November 22, 1907, a vessel sailed from Duluth with 415,800 bushels of wheat, and another on December 3, 1907, with 424,000 bushels. A number of other bulk carriers are credited with cargoes ranging from 300,000 to 400,000 bushels, while the small cargoes of this class of carriers usually range from 100,000 to 200,000 bushels. According to the lake weighmaster at Buffalo, the average cargo of grain received at that port in 1908 was 147,500 bushels.

Consignments of grain carried by package-freight boats are considerably smaller than the cargoes of the bulk-freight carriers, but are nevertheless of no small importance. May 24, 1909, one package-freight vessel left Duluth with 50,000 bushels of spring wheat and another vessel of the same line with 30,000 bushels. In November, 1908, a partial cargo of wheat consigned to Ogdensburg amounted to 77,000 bushels and to the same port in October, 1908, another vessel carried 59,000 bushels. Two other consignments, one of 51,000 and

another of 56,500 bushels, were shipped to the same port in this month. A package-freight boat is constructed to carry miscellaneous commodities on its several decks and to stow grain in the hold. Many of the lines of this class of vessels are operated in connection with railroads.

#### LENGTH OF SEASON OF NAVIGATION.

Navigation on the Great Lakes usually opens in April and closes in December. The number of days the St. Marys Falls canals were open during 1891-1909 was from 219 to 264 days a year, the average for 1891-1895 being 228, and for 1901-1905, 248 days a year. The Welland Canal was open 236 days a year in 1891-1895, and in 1901-1905 it was open 10 days less than were the canals at St. Marys Falls. Erie Canal opens usually in the first week of May and closes in December. The average length of a season of navigation was 216 days for 1891-1905, and 211 days for 1901-1905.

#### CAPACITY OF CARS.

The average carrying capacity of a box car about 1871 was approximately 10 tons, or 20,000 pounds. Eight or ten years later a movement began to increase the maximum load to 30,000, or even 40,000 pounds. On June 30, 1902, according to the returns of the Interstate Commerce Commission, the average carrying capacity of a box car on all railroads in the United States was 27 tons, and in 1908 this had increased to 32 tons. The average capacity of box cars, the kind regularly used for grain, in 1908 was more than three times that in 1871.

The actual weight of carloads of grain is reported for an important part of the grain trade, that which reaches Duluth and Minneapolis; of the cars weighed at Minneapolis by State authorities during the years ending August 31, 1890-1908, the average contents of a car of wheat in 1890 was 582 bushels and in 1908 was 1,097 bushels. The averages for corn were 647 bushels in 1890 and 1,055 bushels in 1908; oats, 987 and 1,560 bushels, respectively, while a carload of flaxseed increased on an average from 543 bushels in 1890 to 1,082 in 1908.

According to the chief grain inspector of Illinois, the average carload of wheat received at Chicago and inspected by State authorities for the year ending August 31, 1907, was 1,232 bushels, and the average carload shipped from Chicago was 1,132 bushels. Of the corn received and inspected there, the carloads averaged 1,225 bushels, and those shipped 1,195; oats, 1,764 and 1,604 bushels, respectively; rye, 1,180 and 1,077 bushels, respectively, while the barley which was received and inspected averaged 1,214 bushels per car and that shipped and inspected averaged 1,418 bushels per car. While the average capacity of the box cars in the United States in 1908 was 32 tons, or about 1,067 bushels of wheat, a considerable number of box cars were built to carry 80,000, and even 100,000 pounds.

Variations in average weights of carloads from month to month may be illustrated by statistics of receipts at Duluth during 1907 and 1908. In both years the December receipts showed average carload weights far above those for any other month. In December,

1907, the average number of bushels of wheat per car received at Duluth was 1,418; the next highest average being for August, 1,389 bushels, and the lowest for September, which was 908 bushels. In 1908 the average bushels per car received at Duluth was 1,794 in December and the lowest average was 768 bushels for the month of August.

Comparing the capacities of cars and lake boats, it would require 240 carloads of 100,000 pounds each to furnish a full cargo for one of the largest grain-carrying lake vessels; and it would take 124 carloads of wheat of 1,194 bushels each, the average for Duluth's receipts during the year 1907-8, to supply a cargo of 147,500 bushels, the average for Buffalo's receipts in 1908. This cargo would be more than enough to load 18 canal boats at Buffalo, while one of the 400,000-bushel cargoes would require 50 canal boats to carry it to tidewater.

#### COMPARISON OF RAIL AND WATER RATES, CHICAGO TO NEW YORK.

Rates charged by lake boats for carrying grain are subject to fluctuation with changes in market conditions. A plentiful supply of boats and a scarcity of grain to be shipped would tend to make rates low, while the reverse of this condition would be apt to raise rates.

The cheapness of water as compared with rail transportation is illustrated by the rates on wheat from Chicago to New York over three routes, one by rail only, another by lake to Buffalo and thence by rail to New York, and the third route being by lake to Buffalo and thence by Erie Canal to New York. During 1871-1875 the mean all-rail rate exceeded the rate by lake and canal by 10.6 cents per bushel; in 1901-1905 this excess amounted to 6.39 cents; and in 1906-1910 to 4.31 cents per bushel. This excess would be reduced somewhat in 1898 and subsequent years if account were taken of charges for transfer at Buffalo from lake to canal. The elevators, during the period beginning with 1908, charged one-half of 1 cent per bushel for transferring grain.

In earlier years there was a greater difference than at present between rates by canal and by rail from Lake Erie to tidewater. The excess of rail over canal rates is shown in Table 47 by the figures for excess of lake-and-rail over lake-and-canal rates. In 1882 and preceding years tolls were charged on the Erie Canal, but they were paid by the boatmen and were included in freight rates. In 1871-1874 the toll charged on wheat on the Erie Canal from Buffalo to the eastern terminus of the canal was 3.10 cents per bushel in currency (from 2.72 to 2.79 cents in gold); in 1875 and 1876 the toll was reduced to 2 cents currency (1.74 to 1.80 cents gold); and in 1877 the charge was further reduced to 1 cent per bushel (practically the same in gold as in currency), which rate remained in force until 1883, when tolls were abolished on the canal.

#### COMPARISON OF RATES TO POINTS EAST AND WEST OF NIAGARA RIVER.

In earlier years the rates by lake to Buffalo from Chicago have been lower than to points east of Niagara River. Rates to Buffalo, however, have declined since 1871-1875 to a much greater degree



than have rates to points east of the river—Ogdensburg and Montreal, for instance. The average rate from Chicago to Ogdensburg in 1890, 1892, and 1893, the first years for which quotations are available, were 3.4 cents per bushel, and in 1906-1909, 4 cents per bushel, a slight increase, while to Montreal the average for 1883-1885 was 6.8 cents, and in 1906-1910, 5 cents, a considerable reduction.

Compared with Buffalo and Depot Harbor, the rates on wheat to Ogdensburg and Montreal from Chicago during 1901-1905 were from two to three times as great, while during 1906-1909 the mean of the rates to Ogdensburg and Montreal were three and one-fourth times those to Buffalo and Depot Harbor. The big boats drawing, when loaded, 18 feet or more of water, and carrying large loads at relatively low cost of operation, were not able to pass through Welland Canal, and had to give the advantage of their cheap service to ports east of Niagara.

#### ROUTES OF GRAIN TRAFFIC.

There are three principal ways in which the grain grown in the Great Lakes region, as well as in the country south of it, is marketed. First, it may be sold to mills in the region where it is produced. The largest milling center in the United States is Minneapolis. The extent of the market here is indicated by the quantity of wheat used by the local mills. The average receipts of wheat at this market for the three years ending with 1911 were 93,000,000 bushels and the average shipments 22,000,000 bushels, leaving 71,000,000 bushels of wheat retained for the use of the mills. A second group of markets open for the wheat of the Great Lakes region are the milling plants in New York and other eastern cities.

Owing partly to a low freight rate on grain, which at times is only 1 cent a bushel from Chicago or Duluth to Buffalo, a large amount of western wheat is ground in the Eastern States.

A third class of markets consists of those in foreign countries. Exports of grain grown east of the Rocky Mountains are made through three principal groups of seaports; one group includes five ports on the Atlantic, the second comprises three on the Gulf coast, and the third is composed of at least four important lake ports through which foreign shipments are made. The principal Atlantic grain ports are Portland (Me.), Boston, New York, Philadelphia, and Baltimore; the leading ones on the Gulf coast are New Orleans, Galveston, and Port Arthur; and the principal lake ports, through which grain is forwarded to Canada for reshipment to other foreign countries, are Duluth, Superior, Chicago, and Detroit.

In addition to the trade at these ports there are minor shipments from a number of others.

From the country shipping points to which the farmers haul their grain a part of it is sent to primary markets, such as Chicago, Minneapolis, or Duluth. There are a number of different routes over which grain from these primary markets is carried to seaports or to eastern mills. The lake routes from Duluth and Chicago have been mentioned on previous pages of this bulletin, and reference has also been made to all-rail shipments and to the rail-and-canal move-

ment, through Buffalo to the seaboard. Lake-and-rail routes terminate also at other north Atlantic ports besides New York, the transfer from lake to rail being made at eastern ports of Lake Erie, and even as far east as Ogdensburg, on the St. Lawrence River.

In addition to the shipments eastward and across the Canadian border, an important outlet for the grain grown in the Great Lakes region, especially in the southern part of it, has been opened toward the south, and a large part of the traffic is thus diverted through the Gulf ports. While these southern ports depend principally upon the regions south and southwest of the grain country which is tributary to the Lakes, nevertheless the transportation lines which extend westward from the Atlantic coast feel the competition of the north-and-south roads which supply the Gulf ports.

### PACIFIC COAST REGION.

#### EUROPE THE CHIEF MARKET.

The wheat grown west of the Rocky Mountains enters into a trade distinct from that of the rest of the United States. The farmer of Oregon, Washington, or Idaho looks to Liverpool and other European ports, not to Chicago or Minneapolis, for his market. Prices in England, and not in the large grain centers east of the Rocky Mountains, interest him. His product is carried, it is true, some 18,000 miles before it reaches the English miller, but this route is cheaper than the 2,000-mile haul across the mountains to milling centers of the Mississippi Valley. Local mills grind considerable quantities and offer an alternative market to the farmer, but the surplus for export is regularly carried by sea to Europe.

#### CLASSES OF BUYERS.

The principal grains marketed by farmers west of the Rocky Mountains are wheat, barley, and oats. Since grain is handled in sacks from the farmer to its ultimate destination, elevators are seldom used west of the Rocky Mountains. Instead, warehouses are used to store grain at the country shipping points, especially in California, Oregon, Washington, and Idaho. In this region the primary markets include San Francisco, Portland, Spokane, Tacoma, Seattle, Sacramento, and Stockton. A large part of the grain is bought directly from the farmers through representatives of the big milling companies and exporters. Trading on the grain exchanges at San Francisco and Portland is done among the exporters, millers, and small dealers. There are a number of farmers' cooperative warehouses (especially in the Pacific Northwest) where grain is left in storage and through which loans may be obtained by pledging warehouse receipts as collateral.

## COST OF MARKETING.

The items of cost in marketing grain from the time it leaves the farmer's hands until it reaches the foreign buyer were in 1910 (and are not far different now) approximately as follows:

*Approximate cost for marketing wheat and barley from country shipping points in the Pacific coast region to England for the year ending June, 1910.<sup>1</sup>*

[Cents per bushel.]

Item.	Wheat from Oregon, Washington, and Idaho.		Barley from California.	
	Low.	High.	Low.	High.
	Cents.	Cents.	Cents.	Cents.
Commission for buying from farmer <sup>2</sup> .....	0.125	1.000	0.480	0.600
Railroad freight charge.....	2.000	15.000	2.000	12.000
Fire insurance (if for 60 days).....	.125	.200	.035	.045
Weighing.....			.600	.600
Warehouse charges.....	1.500	1.500	1.200	1.200
Marine insurance (1.375 to 4.5 per cent; wheat price assumed at 95, barley at 70 cents per bushel).....	1.306	4.275	.962	3.150
Ocean freight.....	13.000	18.000	9.000	16.000
Brokerage for selling in England (0.5 per cent; wheat price assumed at \$1.10, barley at 86 cents per bushel).....	.550	.550	.430	.430
Total of items specified.....	18.606	40.525	14.707	34.025

<sup>1</sup> Railroad freight rates from official tariffs; ocean freight rates from Daily Commercial News (San Francisco); other data from reports made by marine insurance agents and grain dealers.

<sup>2</sup> In the case of wheat this item applies to a small part of the trade only. It is reported that in Oregon, Washington, and Idaho most purchases of wheat from farmers are made by agents who are paid salaries and not commissions.

## THE EXPORT TRADE.

Grain sent to Europe from the Pacific coast is regularly shipped in full cargoes. A single consignment of wheat may contain 100,000 or more bushels and may be worth at the port of shipment from \$75,000 to \$100,000 or more. Grain bought and shipped in October may not reach its destination until late in February or some time in March. Meanwhile, market conditions may have changed so that the exporter or importer may meet with a loss. These difficulties have probably contributed to the concentration of a large part of the grain-export trade of the Pacific coast in the hands of a few strong firms. These exporters are more or less closely connected with grain dealers located in European markets, and who represent there the men who export from the United States; this relation is in some cases reversed—some Pacific coast exporters are representatives of European firms.

The European representative of the Pacific coast exporter may sell a given lot of wheat before the exporter buys it for shipment or the exporter may buy it first and look for a purchaser afterwards. In either case, it is said, both transactions are usually made within a short time of each other, and the exporter runs less risk of a fall in price than if he held his wheat a longer time before selling it. If he did not sell the wheat until it reached Europe, he would have to wait

at least four or five months before he could close the transaction on each cargo.

The Pacific coast exporter, unlike the grain exporters east of the Rocky Mountains, frequently, if not usually, buys grain direct from farmers. He then manages the shipment to the seaboard and attends to the details of chartering a ship and loading the cargo; in these matters his work is similar to that of exporters at such eastern points as Duluth, Chicago, New York, and Baltimore. The exporter pays the marine insurance and, after the consignment is delivered at its destination, the ocean freight. However, prices quoted in England for cargoes of Pacific coast wheat "to arrive," regularly include ocean freight and marine insurance, so the exporter, in drawing upon the European buyer to obtain payment for the cargo, must deduct in his draft the amount to be paid for ocean freight. The deduction made from the gross invoice value, as illustrated in the sample document on page 89, was £3,937 10s., leaving the net amount due from the English buyer as £22,942 10s. This latter sum was named in the sample draft made upon the importer by the exporter, shown below, under the heading "Commercial Papers."

In sales made according to the "Oregon and Washington wheat contract" of the London Corn Trade Association it is stipulated that the grain bought should "average at the time of shipment about equal to the official standard of the Portland (Oreg.) Chamber of Commerce" of the crop.

After the buyer examines the wheat on its arrival in England, if he is not satisfied with the trade, he may appoint an arbitrator and call upon the seller to appoint another, the two having power to choose a third. The board thus chosen decides the matter in controversy. Either party may, and frequently does, exercise his right of appeal to the arbitration committee of the London Corn Trade Association.

Shipments to Europe are frequently made to a port of call. Sail vessels are often chartered to go to Falmouth, Queenstown, or Plymouth, in the British Isles, where orders will be given as to final destination. For steamships the port of call is usually St. Vincent, in the Cape Verde Islands, or Gibraltar.

Of the occasional disasters in the export grain trade over these long routes, three will serve as examples. The British sailing ship *Matterhorn* left Portland on November 26, 1909, and five days later foundered off the mouth of Columbia River, causing the loss of the ship and 61,700 centals of barley. In the same season the German steamer *Utgard* left Portland with a cargo of 132,496 centals of wheat consigned to St. Vincent for orders. On December 16 the vessel was broken in two in the Strait of Magellan and was lost with its cargo. The British ship *Crompton* sailed from Tacoma in the summer of 1910 and reached the Irish coast in safety, but was lost within a few days' sail of its intended destination.

#### UNITS OF WEIGHT.

In California wheat and barley are quoted locally by the 100 pounds, while in Oregon, Washington, and Idaho wheat is sold by the bushel of 60 pounds and barley often by the cental or by the short ton

(2,000 pounds). Freight rates on railroads and river boats in these four States are based on the short ton, and so are charges made by steamships in the coastwise and the trans-Pacific trade, but rates to Europe are quoted by the long ton (2,240 pounds). The price of Pacific coast wheat sold "to arrive" as quoted in England, is based on the quarter of 500 pounds gross weight, including sacks, and the price of barley on quarters of 448 pounds gross.

Wheat from Chile also, when sold subject to contracts of the London Corn Trade Association, is quoted by the quarter of 500 pounds gross weight. In the trade with Australia, Argentina, and the Atlantic coast of the United States the quarter of wheat is taken as 480 pounds, while the quarter of British Indian wheat is reckoned at 492 pounds net weight.

#### COOPERATIVE MARKETING BY FARMERS.

In 1874 the members of the State Grange of California undertook to export their own grain. About 20 vessels were loaded by the farmers, but the firm which acted as their agent failed and the farmers are said to have lost heavily. Two years later, in 1876, two or more ships were dispatched with grain to Europe by the Grangers' Business Association of California.<sup>1</sup> In 1881 the Wheat Growers' Association of California held a series of meetings in Grangers Hall, Sacramento. The association was organized about this time for the purpose of collecting statistics relating to crops, stocks of grain, prices, freight rates, and shipping, as well as other matters of importance to the members, but apparently no attempt was made by the organization to make sales.<sup>2</sup>

Twenty years later a freight blockade caused by a strike prevented wheat from being moved to the seaboard and exported. Much of it was piled along river banks awaiting transportation to Port Costa and other seaports. The wheat not being in warehouses, the farmers were unable to secure warehouse certificates for use in obtaining loans. To relieve these conditions a meeting at Sacramento was called by the Sacramento Valley Development Association and the San Joaquin Valley Commercial and Development Association, and was attended by about 200 wheat growers from a dozen or more counties. The Grain Growers' Association of California was thus organized; it investigated the conditions of transportation and marketing, and claimed to have caused better prices to be paid the farmers.<sup>3</sup>

In Oregon, Washington, and Idaho about 200 farmers' cooperative grain warehouses were reported in operation in 1910, some of which had been established about two years. Each warehouse was operated by a separate local organization, but sales were made through a large union which included members in a number of States. This union had one agent in Seattle who sold to exporters, but most of its transactions were made with mills in the United States or with dealers who supplied these mills.

<sup>1</sup> E. F. Carr's *The Patrons of Husbandry on the Pacific*.

<sup>2</sup> *Alta California*, September and October, 1881.

<sup>3</sup> *Sacramento Record-Union*, September, 1901, and August, 1902.

## COMMERCIAL PAPERS.

The following set of commercial papers was kindly furnished by a prominent exporter of the Pacific coast. In addition to these papers there may be a negotiable warehouse certificate, a fire insurance policy on the wheat before it is exported, a marine insurance policy, a charter party, and possibly others. The charter party contains the agreement between the masters or owners of the vessel and the person who hires it. The usual form used for grain shipped from Portland begins somewhat as follows:

PORTLAND, OREG., *September 12, 1910.*

This charter party, this day made and concluded upon between Henry Brown, master and agent, for owners of the ship or vessel called the *Portland*, of the measurement of 1,518 tons register, or thereabouts, now lying at the port of Seattle, of the first part, and John Doe, of the second part, etc.

Then follow 19 sections of the contract, below which the contracting parties and their witnesses sign their names. The first section requires the grain to be in sacks and makes specifications as to the condition of the vessel; the rate is also named in this section. Section 9 fixes the dates within which the contract is to be executed, and other sections provide a penalty against the vessel in case of delay in arriving, and against the charterer for delay in loading.

## CREDIT STATEMENT.

TACOMA, *July 30, 1909.*

Mr. JOHN JONES, Pullman, Wash., in account with JOHN DOE, Tacoma, Wash.  
Contract No. 101, dated June 1, 1909. 111,500 bushels, at 95¢.

51,000 sacks No. 1 Club, weighing 6,690,000 lbs.; net, say 111,500 bushels, at 95¢	-----	\$105, 925. 00
Deductions as per statement, 7,000 bushels, at 3¢	-----	210. 00
		105, 715. 00

MEM.: Freight as per bills herewith, \$10,597.00.

## ACCOUNT WITH FARMER.

JOHN JONES, Pullman, Wash., in account with JOHN DOE, Tacoma, Wash.

To sundry drafts paid	-----	\$85, 000. 00
To freight from Pullman on 100 cars containing 51,000 sacks wheat weighing 6,728,250 lbs, at 15¼¢	-----	10, 597. 00
To State inspection fees on 100 cars	-----	75. 00
To discount on 7,000 bushels smutty wheat, at 3¢	-----	210. 00
To check to balance	-----	10, 043. 00
By 51,000 sacks No. 1 Club wheat, weighing	-----	6, 728, 250 lbs.
Less tare, ¾ lb. per sack	-----	38, 250 lbs.
		6, 690, 000 lbs.
Say 111,500 bushels, at 95¢	-----	\$105, 925. 00
		105, 925. 00 105, 925. 00

E. and O. E.

TACOMA, *July 30, 1909.*

NOTE.—The farmer generally pays warehouse charges at shipping station of 50 cents per ton and some exchange on drafts. "E. and O. E."=errors and omissions excepted.

## INVOICE.

(John Doe. Shipping, commission, and warehousing.)

*Invoice of a cargo of fair average quality White Walla wheat shipped per British ship Arethusa by order and for account and risk of Messrs. Brown, Smith and Co., Liverpool, England.*

51,000 sacks, f. a. q., White Walla wheat, weighing 6,720,000 pounds, gross, say 13,440 quarters (of 500 pounds each),	£.	s.	d.
at 40s-----	26,880	--	--
Less freight on 3,000 tons, at 26s. 3d-----	3,937	10	--
	22,942	10	--

E. and O. E.

TACOMA, July 30, 1909.

## BILL OF LADING.

John Doe, San Francisco, Cal.; Portland, Oreg.; Tacoma, Wash.

Richard Roe, Liverpool.

Marks.	Sacks.	Contents.	Pounds.
JJ.....	51,000	Wheat.....	6,720,000

SHIPPED in good order and condition by John Doe, of Tacoma, Wash., in and upon the British ship called the *Arethusa*, whereof Nelson is master for this present voyage, and now lying in this port, and bound for Queens-town, Falmouth, or Plymouth for orders to discharge at a safe port in the United Kingdom or on the Continent between Havre and Hamburg, both ports inclusive, fifty-one thousand sacks wheat, being marked and numbered as per margin, and which are to be delivered in the like good order and condition at the port of discharge as above (subject to the London Conference Rules of Affreightment, 1893, as endorsed hereon) unto order, or to his assigns, freight for the said goods payable in cash without discount at the rate of (26/3) twenty-six shillings and three pence sterling per ton of 2,240 lbs. gross weight delivered, if discharged in the United Kingdom or at Havre or at Antwerp or at Dunkirk or at Hamburg; two shillings and six pence (2/6) sterling per like ton extra if discharged on the Continent, as above, other than Havre or Antwerp or Dunkirk or Hamburg, with average accustomed and all other conditions as per charter party.

In witness whereof the master or purser of the said ship or vessel hath affirmed to two bills of lading, all of this tenor and date, one of the said bills being accomplished, the other to stand void.

Dated in Tacoma, Wash., this 30th day of July, 1909.

Weight and contents unknown to  
(Signed) H. NELSON,  
Master.

## DRAFT.

£22,942 10s. 0d.

TACOMA, 30th July, 1909.

Sixty days after sight of this First of Exchange (second and third unpaid) pay to the order of The Bank of California twenty-two thousand nine hundred and forty-two pounds ten shillings; value received, and charge the same as advised.

(Signed) JOHN DOE.

To Messrs. BROWN, SMITH AND Co., Liverpool.  
Payable in London.

PROFIT AND LOSS ACCOUNT OF A CARGO OF WHEAT SHIPPED AT TACOMA PER  
"ARETHUSA" TO UNITED KINGDOM.

To cost of 111,500 bushels No. 1 Club wheat, at 95¢	\$105,925.00	
Less discount on 7,000 bushels smutty, at 3¢	210.00	
		105,715.00
Buying agent's commission, $\frac{1}{2}$ ¢ per bu	139.25	
Wharfage, 3,360 tons, at 50¢	1,680.00	
Cleaning 210 tons smutty, at 50¢	105.00	
Fire insurance, 60 days on \$100,000, at 51¢	510.00	
Marine insurance, £23,400, at \$4.86=\$113,724 at 1 $\frac{3}{4}$ %	1,990.00	
Selling brokerage, £26,880=\$130,636.80 at $\frac{1}{2}$ %	653.18	
Balance of profit	708.12	
By proceeds, draft on London at 60 days, £22,942 10s. 0d., at \$4.86		\$111,500.55
	111,500.55	111,500.55

E. and O. E.  
TACOMA, July 30, 1909.

NOTE.—

Gross weight wheat bought	pounds	6,728,250
Gross weight wheat shipped	pounds	6,720,000
Loss in cleaning 210 tons	pounds	8,250

#### HANDLING GRAIN IN SACKS.

Grain exported from the Pacific coast is regularly carried in sacks. It is not considered safe to load a vessel with bulk grain for this long voyage; the cargo might shift and endanger its own safety and that of the ship. Hence one condition of a marine insurance policy and of a charter party is that grain cargoes shall be in sacks. This requirement makes it hard to change the custom of handling the grain crop of the Pacific coast region in sacks from the farm to foreign or domestic mills.

There are some advantages of this method over handling grain in bulk, one of which is that a single lot of grain may easily be kept separate and identified by the marks on the sacks. However, when the grain reaches the warehouse at the seaport it is frequently emptied from the sacks, run through an elevator for the purpose of cleaning or mixing, and is sacked again for shipment.

The grain warehouses require relatively little machinery, compared with elevators, since the sacks may be handled easily by hand trucks. It has been found convenient, however, to make use of conveyers, operated by steam or electricity, for the purpose of stacking the sacks in warehouses and loading them on shipboard.

In loading on ships it is common to use conveyors to carry the sacks to the top of a slide, whence they are allowed to move by gravity into the hold of the vessel. Wheat makes a cargo of sufficient weight to ballast a ship safely, but a full cargo of barley is rather light unless stowed in a careful manner. The loss of the *Matterhorn*, with its full cargo of barley, occasioned an inquiry on the part of one or more insurance companies as to safer methods of carrying this grain; and one expert advised that the sacks be "bled"; that is, be caused to leak enough grain to fill in the interstices among the sacks and thus make a cargo of greater weight per cubic unit than ordinary sacked barley.



## ATTEMPTS TO USE ELEVATORS.

Occasionally a car of bulk grain is received at a terminal warehouse. The agent of an exporting firm tells of a bulk consignment received at one of its terminal warehouses which was unloaded from the car by means of shovels and wheelbarrows.

Some attempts have been made in the Pacific coast region to establish elevator systems and handle grain in bulk. About 20 or 25 years ago a number of elevators for handling bulk grain are said to have been erected at various railroad stations in Oregon and Washington, and a terminal elevator at Portland. The grain was received in sacks from the farmers, as they were not prepared to haul in bulk; it was emptied at the elevator, hauled in bulk to the seacoast and sacked again when exported. This practice did not continue many seasons. Some of the elevators were dismantled, their machinery being removed to give more room for storing the grain in sacks. The terminal elevator at Portland burned and was never rebuilt.

In 1910 there were elevators at Tacoma and Seattle, so that bulk grain could, if desired, be transferred from cars into ships, and a project was reported for the establishment of a line of elevators for the coastwise trade, some houses being erected at northern ports for handling shipments and at southern California ports for handling receipts.

## PROBLEMS IN MARKETING GRAIN.

Nearly 60 per cent of the wheat crop during the past few years has left the farmers' hands within four months, and of the corn and oats marketed about 50 per cent have been sold by farmers within four months. From August to October, inclusive, more than half the barley sold leaves the farmers' hands, and the same is practically true of rye; thus within a relatively small portion of the year a relatively large amount of grain is unloaded on the market by producers. One of the problems with which cooperative associations are concerned is to devise a means for enabling farmers to store their grain and sell it when the market suits them instead of being forced to sell soon after harvest. The solution of this problem is concerned with the extension of agricultural credit.

## THE HAY TRADE.

## EXTRACTS FROM FARMERS' BULLETIN 508 (MARKET HAY).

## INTRODUCTION.

There is a considerable difference in the demands of the individual markets in various sections of the country in regard to the size and weight of the bale and the kind and grade of hay which brings the best price. Certain practices in baling and marketing cause a loss to the producer which could be avoided if a proper adherence to the requirements of the markets to which the hay is shipped were observed.

How to dispose of low-grade hay is a vital problem with everyone who handles this class of hay, and every dealer has more or less of

it, usually more low-grade hay than any other kind. The shippers, receivers, and dealers can help very much in solving this perplexing problem. The country buyer and shipper especially can help very materially and should use every fair means in his power to lessen the trouble caused by low-grade hay. The first step in the right direction is for the producer to learn the different grades of hay. It is just as important for him as it is for the city buyer to know the grades.

If hay sells by grade in the country the man who has the poorest product will receive less than he does now. At present the man who has choice hay receives less than it is worth on the market, and part of the profit which the shipper makes on the good hay must go to make up for the loss on the poor hay. With the present system of buying hay there is not enough difference in the price paid for the better grades in the country as compared with the price paid for the lower grades; therefore, if the man who has No. 2 hay receives within 50 or 75 cents of the price of his neighbor's choice hay, he is satisfied and thinks that it is not necessary to take the precautions that his neighbor did in order to get a slight advance.

#### CLASSES OF HAY PRODUCERS.

The market-hay producers may be divided into three classes, according to the kind of hay produced.

The first class includes those producers who do not keep much live stock on the farm, but who realize the necessity of keeping the soil in as good a state of fertility as possible. They use fertilizers or grow some leguminous crop, either alone or in a mixture with grass hay, and practice a rotation of crops. The use of a proper rotation with fertilizers or legumes, or both, tends not only to maintain the productiveness of the soil and to produce maximum crops, but also to yield hay that contains less weeds and other grasses than when the meadow is not included in a rotation.

The second class is made up of those producers who feed live stock and apply manure to the soil and who sell only the surplus hay. With this class of producers the meadow is included in the rotation and gets the benefit of the manure.

The largest class of producers embraces those who do not include the meadow in the rotation, but who continue to cut hay from it year after year, long after the yield has fallen below the average and after the invasion of foreign grasses and weeds. Such hay grades low, no matter how much care is taken to cut and cure it properly. A study of the relative quantities of the different grades on the various markets and the causes of low grading will show that it is this class of producers which loses most because of lack of knowledge of market demands and of the value of crop rotation.

#### DEMAND FOR DIFFERENT GRADES OF MARKET HAY.

Market hay may be divided into two classes—city market hay and local, or country, market hay. The line of distinction between these classes is not always clearly drawn, but it may be said in general that the demand in regard to quality and better grades is more rigid in the city than on the local market. All hay sold to feeders in the

vicinity in which it is grown or in towns or cities which do not have an organized hay market is classed as local market hay. An organized hay market is one having official inspection, standard methods of weighing and of quotations, and which is supervised by an organization of men in the hay business.

It requires a better quality of hay to grade as "choice" on the city market than on the local market. The several reasons for this will help explain the cause of some of the trouble experienced by shippers. On the local market the producer usually comes into direct contact with the consumer, and hay is not sold according to its official grade but on its merit. It is designated as "choice," "good bright hay," "fair," "medium," etc. This includes all kinds of hay, and hence there is no necessity for the producer to know the commercial grades.

Local market hay is largely the farmer's surplus, and this often contains a larger percentage of "other grasses" and weeds than is permitted on the city market. The producer and local consumer who have little knowledge of official grades do not object to this foreign material.

Compared with marketing hay in the city, disposing of it on the local market is a simple matter, for the producer and consumer can agree as to price, and the subject of grade plays but little part in the transaction. When hay is shipped to the city market, however, the grade given by the shipper is of the utmost importance. For these reasons reference hereafter in this bulletin to market hay will refer to city market hay only. The term will include, however, hay sold in southern cities which do not have an organized market but which sell hay that has been inspected and graded in some market during transit.

The prices of the different grades of hay depend in years of normal yield on the demand of city consumers, who may be divided into three general classes according to the kind of hay they feed.

In the first class are the owners of fancy driving and saddle horses, who feed the highest quality, or "choice" hay. Such horses must be kept in the best condition, and as "choice" hay is very palatable and agrees with the horse it is used to furnish the required bulk of the ration rather than for the quantity of nutritive substances it contains. "Choice" hay always finds a ready sale, for the demand usually exceeds the supply.

The second class of consumers avoid extremes in both price and grade and feed the medium grades of hay. In the eastern part of the United States "No. 1" and "No. 2" timothy are fed in preference to the other grades, as this kind contains nearly as much total nutriment as "choice." It is also cheaper and requires a smaller addition of concentrates to make up the ration than the lower grades. Consumers of this class are beginning to use mixed (timothy and clover hay) and legume hay, especially alfalfa, in preference to unmixed grass hay.

The third class of consumers feed the lower grades, such as "No. 3" timothy and "no grade." This hay is fed by uninformed feeders because it is cheap and by owners of transient and sales stables, who want something to fill up the horse and are not greatly concerned about the nutritive value of the feed. When this kind of hay is fed it is necessary to supplement it with a larger grain ration than when

the better grades are used. The quantity of poor hay in the markets is much greater than that of good hay, owing largely to the methods used by certain producers.

#### SIZES OF BALES DEMANDED IN THE MARKETS.

The size and weight of the bales are important in most markets. Unless the hay is "choice," it is seldom that two sizes of bales will sell equally well. To purchase a press of the proper size the producer must know the demands of the market to which his hay will be shipped. Usually a man ships his hay into one general locality where the demand in regard to size and weight of bale is uniform.

A study of hay markets has shown that the ease with which a bale can be handled is often responsible for its popularity. Thus the small bale weighing up to 100 pounds is in demand because one man can load, unload, and deliver it, whereas it requires two men to handle the large upright bale weighing 200 pounds or more.

In the South a large amount of hay is shipped by boat to the smaller town. The small bales are in demand because one man can easily carry such a package up a steep gangplank, and it requires much less time to handle the hay under these conditions than when large bales are shipped. In certain western markets it frequently happens that baled hay, especially alfalfa, becomes heated. Here the small bale is popular for the reason that such heating is easily detected, while the interior of a large bale may be spoiled with no indication of it on the outside.

For the general retail trade in the South small bales weighing about 70 pounds, or not less than 30 bales to the ton, are the only size that sell to advantage. The reason is that the average retail dealer sells most of his hay in small lots, a bale or two at a time, to persons owning one or two horses. They like to buy a bale that costs less than \$1. Again, hay is sold in many southern cities at so much per bale instead of by weight. A tightly pressed bale 14 by 18 inches, containing 100 pounds, will not sell for the same price as quickly as a 16 by 18 inch bale containing 70 pounds, because the consumer buys the bale that "looks bigger."

The greatest objection to small bales from the shipper's point of view is that it is often impossible to put into small cars a sufficient number of bales to make up the minimum freight weight assigned to the car.

The large upright bale is popular in several of the eastern markets and in western grain-hay markets. If the hay is "choice," large bales sell well at wholesale, since consumers who use carload lots buy hay by actual weight and prefer large bales.

One objection to large bales is that consumers think that the hay in such bales has had "the life pressed out of it." The injury, however, is largely imaginary.

In a few markets the large, loosely pressed box bale is preferred, chiefly because consumers have been accustomed to the box-pressed hay and have never tried properly baled perpetual-pressed hay.

#### MARKING THE WEIGHT OF BALES AND ITS EFFECT ON PRICES.

It is a common practice in many sections of the country to tag each bale with its weight as it is taken from the press. The tag

weight is obtained by weighing on a small truck scale placed near the press. Hay is tagged in order that the baler may know the quantity pressed and to avoid the necessity of weighing when sold where wagon scales are not easily accessible.

Tag weights in general are not reliable except when the hay is honestly weighed and immediately shipped to market. They have caused so much trouble in city markets that at present they are very little used.<sup>1</sup>

The reasons that tag weights are often incorrect may be stated as follows: (1) New hay properly tagged, if stored for some time, will lose weight by shrinkage, the loss depending on weather conditions and the moisture content of the hay when baled. A 200-pound bale may lose 10 or 12 pounds in the course of several months. On the other hand, hay baled dry may gain in weight during a continued period of wet weather. Grain and alfalfa hay often weigh less than the tag weight on account of the loss from handling the bales. In either case the tag weight is incorrect. (2) The weight is often marked up so as to make the totaling easier for the weigher, as for example, if a bale weighs 83 pounds, it may be marked 85. This increases the profit in case the baling is done by the ton, or it may happen because of carelessness in weighing. It is sometimes the custom to weigh 10 or 15 bales when a new stack or mow is opened and use the average, with an occasional variation for all of the bales, thus saving time and labor for the weigher.

The retail dealer is the only one except the producer who uses tag weights. Some retail men buy on railroad or other official weight and sell by tag weight. This usually gives them extra profit, for the weights are often a few pounds too high.

When a producer insist on selling his hay by tag weights, the price offered per ton is very likely to be from 50 cents to \$1 lower than if the hay is weighed on wagon scales at the time of delivery.

An illustration of the trouble often caused by tag weights is where a consumer has bought a car of hay containing 10 tons, tag weight, but the actual scale weight, obtained when the car is unloaded, shows that the weight is but  $9\frac{1}{2}$  tons. If he makes a claim for shortage to the city consignee, the claim may be passed on to the country shipper, who in turn may make a claim for shortage on the producer. If the producer has hired the baling done the person who did the work should stand the shortage, but he would claim that the hay was properly tagged and that the loss is due to shrinkage in handling, etc., and that he is not responsible. In actual practice, however, the claim would not be referred to the baler, but might be settled by the consignee, the shipper, or the consumer.

To avoid such disputes and claims it is the almost universal custom now to sell on actual weight on delivery at destination, unless the shipper has established a reputation for selling "full weight," in which case his weights will be taken.

#### SHIPPING HAY TO THE MARKET.

A thorough knowledge of trade rules is necessary for the successful shipping of hay, for when shipper and receiver do not have the

<sup>1</sup> See General Business Law, New York State, secs. 253-255, on tagging hay and the use of wooden tags.

same understanding of rules or terms trouble is likely to occur, and this causes a loss to one of the parties to the transaction.

It frequently happens that cars are improperly loaded when hay is being shipped, owing either to the quantity or the kinds of hay contained in the car. The minimum freight rate must be paid on every car, and unless enough hay is put in to make the minimum load the shipper is obliged to pay the charges on the amount of the shortage. It is impossible to load some of the old small-size cars to the minimum weight because the cubic capacity is not sufficient to hold the minimum-weight load of hay when baled in the ordinary way. Very little trouble of this kind is experienced with cars more recently built.

#### SHIPPING DIRECT TO THE CONSUMER.

Many producers are able to command a much better price for their hay by shipping direct to the consumer than by shipping to some city market, especially if the consumer lives in the country, because the demands of the individual consumer in the country are often quite different from those of the city consumer. Hay in the tame-hay section can often be sold to better advantage to local cattle feeders, dairymen, liverymen, etc., than by shipping it. These consumers use large quantities, care but little for market grades, and have no objections to mixtures or to certain sizes of bales not wanted in the city markets.

Several growers in the South sell all their alfalfa or other hay direct to country consumers and make a fair profit on their product, whereas if their hay were shipped to market and subjected to a rigid inspection they could realize but little profit.

It is necessary in making quotations to consumers to describe the quality of hay so that they will be able to form an opinion as to its feeding value. This is very important in selling directly from the producer to the consumer for the first time. The most successful farmers who ship hay direct often send a car as a sample of their product, either their best, their medium, or their poorest hay. In this way the consumer can get an idea of the different kinds and will understand quotations in the future.

A weak point in this system of selling is that sometimes the producer substitutes inferior hay in a second shipment, or the consumer claims it to be inferior to that bought. It is seldom, however, that either producer or consumer will resort to such a practice, for generally the producer wishes to retain steady customers and the consumer is anxious to purchase hay from a reliable source.

#### METHODS OF HANDLING AND STORING HAY IN THE MARKETS.

##### WAREHOUSE SYSTEMS.

The three principal methods of handling hay at the markets are (1) on holding tracks, (2) in private warehouses, and (3) in terminal warehouses.

(1) Some railroads provide certain tracks or yards where the cars are held until the hay is sold. In some cities instead of having several holding yards the hay is all held in one yard owned by a terminal railroad company. The advantage of this system is that

the buyer can make his inspection in a few minutes each day and buy his supply from the commission men who are on the ground. Where there are several holding yards, buyers and sellers meet at each yard at a designated time each day. A disadvantage of this system is that the hay must be sold and unloaded within a specified time, usually 48 hours after arrival, or demurrage will accrue. Unless the arrival of the shipments at such a market is uniform, there will frequently be an oversupply or a scarcity of the product, which tends to cause fluctuations in prices. This tendency to fluctuate may be checked somewhat if there are enough private warehouses to store several days' consumption of hay.

(2) The private warehouse system is used in most markets. This system is satisfactory when it is desired to store hay for some time, and especially so if the warehouse has a private track easily accessible from the different railroads, thus saving transfer charges from car to warehouse, extra switching, demurrage, and storage charges. Private warehouses have a storage capacity of quantities ranging from a few carloads up to 200 carloads, which would be approximately 2,000 tons of hay. It is customary in some warehouses to place the hay from each car by itself or to put only one grade in a pile. By piling the bales in this way it is easy to fill an order quickly for any grade desired. It also enables the buyer to purchase carload lots of uniform grade.

(3) Hay may be handled by a terminal warehouse company or by railroad warehouses. On arrival at these warehouses it is weighed and unloaded at once and placed for inspection and sale, the contents of each car, if uniform, being kept separate. If it is not uniform it is separated into the various grades. Some warehouse companies store the hay free for five days, after which storage at the rate of about 30 cents per ton is charged for each period of 10 days, the owner standing the risk from fire.

In Baltimore the cost of unloading, weighing, piling for inspection, and reloading in case it is shipped out is paid by the railroad company. This is done in order that the cars may be used again as soon as possible. This system is perhaps one of the best and quickest methods of handling and storing hay, especially if the weighing is accurately done.

#### MARKET WEIGHTS.

Correct weights are of vital importance to the hay dealer, and the market having good weights has a decided advantage over the one with poor weights. The common methods of weighing are on railroad-track scales, hand-truck scales, and wagon scales, and under certain conditions each method may have its faults.

Railroad weights are understood to be gross weight, taken while the car is moving over the scale at any speed up to 5 miles an hour. From this gross weight is subtracted the stenciled weight of the car, or the weight of the empty car taken at the time it was built. No doubt the speed of the car while passing over the scales affects the weights somewhat, but this is not as serious as an inaccurate stenciled weight. It often happens that the original stenciled weight of a car remains unchanged after the car has received repairs, such as new trucks or roof, which may have materially changed the original weight.

At the terminal warehouse in Baltimore the empty as well as the loaded car is weighed on track scales, thus insuring accurate weights. The reason the stenciled weight is relied on as correct is that in some markets the track scales may be several miles from the place where the hay is delivered and it would not only be expensive to haul back the empty cars, but there would be much delay in selling the hay.

In some markets where the hay is unloaded directly from the car into the warehouse it is customary to use hand-truck scales. All the hand trucks are standardized under these circumstances—that is, lead weights are added to each truck until it is brought to a certain weight. Three large or four small bales are placed on a truck, which is wheeled to the scale and weighed, a record being kept of the number of bales of each grade and the total number. This system gives accurate results if the weighmaster is careful, but if the scale is not properly balanced and the weighing is carelessly done the total error may amount to several bales.

When wagon scales are used they should be frequently inspected, for scales exposed to the weather, as wagon scales usually are, are liable to get out of adjustment. The presence of mud on the wagon wheels, the pulling or backing of the horses, etc., affect the accuracy of the weighing.

Nearly all large markets have official weights—that is, both the weighing and the inspection of scales are under the supervision of some trade organization or of the city or State. The weighmaster furnishes a signed statement of the contents and weight of each load or car, so that the hay may be traced to the car from which it came and the consignee may have an official weight when settling for the hay.

#### INSPECTION AND GRADING.

Hay is inspected to determine definitely its quality, which is expressed in terms of grades. Many times inspection is needed because the shipper does not know the grades of hay or because the shipper or the consignee is of the opinion that his product is of a higher or lower grade than it really is.

The methods used for inspection at the markets are known as "door inspection," "bale inspection," and "plug inspection." In door inspection the inspector grades the entire car by the quality of the hay at the doors. This method is of value only when the door hay truly represents the entire contents of the car. If it contains poorer grades which the inspector is unable to see, the inspection is of little value and may result in loss to the shipper by being rejected.

Bale inspection, sometimes called reinspection, consists of inspecting the hay one bale at a time. This is resorted to when the purchaser on unloading a car that has been door-inspected finds that the car has been "plugged"—that is, contains lower grades than that purchased. He may either then reject the entire car or else may accept it by paying for the various grades other than that the car is supposed to contain at the market quotations for that day. In deciding to accept the entire car he asks for a reinspection, and the inspector in making this catches each bale with a hook as it is passed out of the car so that he can turn it and examine each of the four sides in the best light, keeping a record of the number of bales of each grade.



Where hay is not sold on the track, but is unloaded into warehouses, it is customary to give it bale inspection as it comes from the car or to pile it in the warehouse in such a manner that the inspector will be able to see as much of it as possible. In New Orleans the inspector tags each bale with its weight and grade as it comes from the car into the warehouse. If a car is rejected on account of being loaded so that the inspector can not grade it accurately on door inspection it must be sold again and for less than if the grades were known when first offered for sale. This loss may be avoided by proper invoicing when the car is shipped.

In making "plug inspection" the hay in front of the doors and a section through the middle of the car to each end is removed so that the greater part of the car can be inspected. After inspection the hay is replaced in the car. Plug inspection is chiefly used in markets that make a practice of reshipping hay in the same car, as when northern timothy is shipped to St. Louis or Kansas City and thence reshipped to points in the South. When the country shipper gives the true contents of a car and has done this long enough so that the consignee can depend on his bill of lading, and if the shipper can also depend upon the consignee to accept his grading, there is no necessity for inspection and these charges may be saved. The charge for door inspection in Cincinnati is 40 cents per car; for bale inspection, 60 cents. In other markets the charges vary from 50 cents to \$1 a car.

The value of official inspection lies in avoiding the unjust claims which are frequently made when the hay is not properly billed or when the parties are not well known. A large percentage of market hay is not inspected except in those markets where inspection is required by State law. Reliable shippers and consignees do not have their hay inspected because they know the grades of hay in the markets. These men are able to save the inspection charges. The city dealer cares very little about inspection, for he also knows the grades and when he can see the hay in a warehouse or in any other place he is willing to use his own judgment rather than that of the inspector.

In case the shipper thinks the inspection is not correct he may appeal to the organization having supervision of the inspection, which will appoint a competent committee to pass on the case. It is seldom, however, that the inspector's judgment is reversed.

Recently country shippers have agitated a uniform inspection in those markets which have adopted a plan of grading hay. This has been brought about on account of the variations in inspection under the present rules of grading. That there is variation and lack of uniformity in some of the markets can not be denied. The reasons given for the need of this uniform inspection are that at the present time it is not only necessary for the country shipper to know the rules of grading, but he should also know how his hay will be graded in each market to which he ships. If he does not know these rules, he is likely to lose money when shipping certain grades to markets with which he is not familiar.

The general character of the hay received at each market may or may not cause the rules to be strictly adhered to. For example, if the greater part of the hay received in a market is of low grade, the

hay that grades "choice" may be of a lower standard than that graded "choice" in a market where most of the hay received is free from weeds and foreign grasses, is properly cut and cured, and properly baled.

#### HAY ORGANIZATIONS AND THEIR INFLUENCE.

A system of grading hay has been adopted by the hay exchanges in various cities, and their rules and methods are given in this bulletin for the information of the farmer who is producing hay, either as a part of his regular crops or merely as a surplus crop. The Department of Agriculture in publishing these requirements does not present them as a satisfactory system. The department has not adopted nor does it recommend this method. The system is here presented for information without regard to its merit.

With the development of baling presses and the shipping of baled hay to city markets, trouble frequently arose between shipper and consignee over the quality of the shipment, especially where the consignee had not seen the hay, but had bought it on representation made by the producer or shipper. Even where there was no attempt on the part of the shipper to substitute inferior hay for that called for in the contract trouble often developed over a difference of opinion as to what constituted a certain grade of hay. The need of organization for the benefit of all concerned soon became apparent. The development from the venturesome methods of the early seventies to an industry that has been placed upon a firm business foundation is due in large measure to organization and cooperation among those engaged in the production and utilization of hay.

Commercial organizations that are almost indispensable in the hay trade are boards of trade, merchants' exchanges, hay and grain exchanges, etc. The duty of these organizations is to supervise the weighing, inspection, and handling of hay, to issue market reports, and to formulate and enforce trade rules.

These hay associations have not only brought about many needed changes in the manner of disposing of hay in the market, but they have made it possible for the producer who knows the requirements of his market to engage in the growing and marketing of hay with more assurance of success than ever before.

This method of organization has caused many changes in the hay industry, especially in regard to grades of hay, baling practices, standardizing bales, and market demands.

Standard grades of timothy, clover, prairie hay, straw, mixed hay, and alfalfa have been adopted in most of the important markets, and it is of vital importance to the producer to know and meet the demands of the market to which he ships.

The lack of knowledge causes the loss of thousands of dollars annually. For example, a press may be used that does not make a bale of the right size or weight for a given market. In New York City timothy hay in large bales sells at a much better price than the same grade in small bales, while the reverse is true in the southern markets. Shipping the wrong kind to either market is sure to lower the prices paid and gives rise to much misunderstanding between the shipper and the receiver. Putting more than one grade of hay in

the bale is another cause for loss. This difficulty could be avoided by a study of the rules of the particular market.

#### SYSTEM OF HAY GRADES IN USE IN THE PRINCIPAL MARKET CENTERS.

Those hay associations which have made their system of grading uniform have adopted rules governing inspection as follows:

*Choice timothy hay.*—Shall be timothy not mixed with over one-twentieth other grasses, properly cured, bright natural color, sound, and well baled.

*No. 1 timothy hay.*—Shall be timothy with not more than one-eighth mixed with clover or other tame grasses, properly cured, good color, sound, and well baled.

*No. 2 timothy hay.*—Shall be timothy not good enough for No. 1, not over one-fourth mixed with clover or other tame grasses, fair color, sound, and well baled.

*No. 3 timothy hay.*—Shall include all hay not good enough for other grades, sound, and well baled.

*No-grade hay.*—Shall include all hay badly cured, stained, thrashed, or in any way unsound.

*Light clover mixed hay.*—Shall be timothy mixed with clover, the clover mixture not over one-fourth, properly cured, sound, good color, and well baled.

*No. 1 clover mixed hay.*—Shall be timothy and clover mixed, with at least one-half timothy, good color, sound, and well baled.

*No. 2 clover mixed hay.*—Shall be timothy and clover mixed, with at least one-third timothy, reasonably sound and well baled.

*No. 1 clover hay.*—Shall be medium clover, not over one-twentieth other grasses, properly cured, sound, and well baled.

*No. 2 clover hay.*—Shall be clover, sound, well baled, not good enough for No. 1.

*Choice prairie hay.*—Shall be upland hay, of bright natural color, well cured, sweet, sound, and may contain 3 per cent of weeds.

*No. 1 prairie hay.*—Shall be upland, and may contain one-quarter midland, both of good color, well cured, sweet, sound, and may contain 8 per cent of weeds.

*No. 2 prairie hay.*—Shall be upland of fair color, and may contain one-half midland, both of good color, well cured, sweet, sound, and may contain 12½ per cent of weeds.

*No. 3 prairie hay.*—Shall include hay not good enough for other grades and not caked.

*No. 1 midland hay.*—Shall be hay of good color, well cured, sweet, sound, and may contain 3 per cent of weeds.

*No. 2 midland hay.*—Shall be fair color or slough hay of good color and may contain 12½ per cent of weeds.

*Packing hay.*—Shall include all wild hay not good enough for other grades and not caked.

*No-grade prairie hay.*—Shall include all hay not good enough for other grades.

*Choice alfalfa.*—Shall be reasonably fine leafy alfalfa of bright green color, properly cured, sound, sweet, and well baled.

*No. 1 alfalfa.*—Shall be coarse alfalfa of natural color or reasonably fine leafy alfalfa of good color, and may contain 5 per cent of foreign grasses; must be well baled, sound, and sweet.

*No. 2 alfalfa.*—Shall include alfalfa somewhat bleached, but of fair color, reasonably leafy, not more than one-eighth foreign grasses, sound, and well baled.

*No. 3 alfalfa.*—Shall include bleached alfalfa or alfalfa mixed with not to exceed one-fourth foreign grasses, but when mixed must be of fair color, sound, and well baled.

*No-grade alfalfa.*—Shall include all alfalfa not good enough for other grades, caked, musty, greasy, or thrashed.

*No. 1 straight rye straw.*—Shall be in large bales, clean, bright, long rye straw, pressed in bundles, sound, and well baled.

*No. 2 straight rye straw.*—Shall be in large bales, long rye straw, pressed in bundles, sound, and well baled, not good enough for No. 1.

*No. 1 tangled rye straw.*—Shall be reasonably clean rye straw, good color, sound, and well baled.

*No. 2 tangled rye straw.*—Shall be reasonably clean, may be some stained, but not good enough for No. 1.

*No. 1 wheat straw.*—Shall be reasonably clean wheat straw, sound, and well baled.

*No. 2 wheat straw.*—Shall be reasonably clean, may be some stained, but not good enough for No. 1.

*No. 1 oat straw.*—Shall be reasonably clean oat straw, sound, and well baled.

*No. 2 oat straw.*—Shall be reasonably clean, may be some stained, but not good enough for No. 1.

The foregoing system of grading hay and straw has been adopted by hay exchanges in the following markets:

Atlanta, Ga.	Jacksonville, Fla.	Pittsburgh, Pa.
Baltimore, Md.	Kansas City, Mo.	Richmond, Va.
Buffalo, N. Y.	Minneapolis, Minn.	Saginaw, Mich.
Chicago, Ill.	Minnesota (State).	St. Louis, Mo.
Cincinnati, Ohio.	Nashville, Tenn.	St. Paul, Minn.
Cleveland, Ohio.	New Orleans, La.	Savannah, Ga.
Duluth, Minn.	New York, N. Y.	Toledo, Ohio.
Indianapolis, Ind.	Philadelphia, Pa.	Washington, D. C.

Atlanta and Baltimore use these grades in part only.

#### REQUIREMENTS OF THE MARKETS.

The accompanying table contains general information concerning the kinds of hay, size of bale in demand in the different markets of the United States, and other data. This information is given here to enable the average producer to have more definite knowledge of conditions in the market to which his hay may be shipped.

*The requirements of the various eastern, western, and southern hay markets, showing kinds of hay received, types of bales, methods of inspection, weights, and the most common faults that affect the selling price.*

EASTERN MARKETS.

Markets.	Kinds of hay received. <sup>1</sup>	Types of bales in demand (weights in pounds).	Inspection.	Kinds of market weights used.	Methods of receiving and selling.	Common faults that affect the selling price of market hay.
Baltimore, Md.	Tim, cl, cl-mx.	Small 5-wire <sup>2</sup> (100), large (200-230).	Warehouse.	Car, loaded and unloaded, at terminal warehouse.	Warehouse, each carload separated into grades.	Presence of fine grasses, weeds, daisies, and plantain; meadows kept in hay too long.
Boston, Mass.	Tim, cl-mx, cl, some al. for cl-mx.	Large upright <sup>2</sup> (190-220), small.	None.	Official <sup>3</sup> .	Terminal warehouses.	Late cutting, mow burn, and presence of weeds and daisies.
Buffalo, N. Y.	Tim, small demand for cl-mx.	Medium (130-140), large. <sup>2</sup>	Door.	Public scale, tag.	Private and terminal warehouses.	Improperly cured and late cut.
Chicago, Ill.	Tim, cl, cl-mx, pr.	14 by 18 inches (100), 16 by 18 inches (125).	Door, bale.	Railroad, official.	Holding yard, private warehouses.	Presence of other grasses; cut too late.
Cincinnati, Ohio.	Tim, cl-mx, cl, alsike cl.	Small <sup>2</sup> (100-125), large (200-230).	do.	Official, on hand-truck scales at warehouses.	Private warehouses; sold by sample on hay exchange.	Clover cut too late; presence of white mold, weeds, and stubble; "white top," very common; bales often "sandwiched."
Cleveland, Ohio.	Tim, cl-mx, cl.	Medium.	Door.	Shipper's, with guarantee attached.	On track, private warehouses.	Strreaked bales, caused by improper curing; considerable wet hay received.
Columbus, Ohio.	Tim, cl-mx.	Medium, small.	Door.	Railroad, shipper's, consignee's.	Terminal warehouses.	Late cutting, mow burn, and presence of weeds and daisies.
Duluth, Minn.	Tim, upland pr, mx.	Small (100).	Door, bale.	Railroad track scales.	Holding yards; sold at yards or in warehouses.	Most of the low-grade hay caused by late cutting and improper methods of curing.
Indianapolis, Ind.	Tim, cl-mx.	Medium, large.	Door.	Tag, corrected by averaging a c t u a l bale weights.	Private warehouses.	Cut too late; "sandwiched," as most of the product has been stacked and carelessly baled.
Minneapolis, Minn.	Tim, cl-mx, pr.	Large upright <sup>2</sup> (190-220), small (100-125).	Door, warehouse.	Railroad track scales; wagon scales at private warehouses.	Terminal warehouses.	Late cutting and improper curing.
New York, N. Y.	Tim, cl-mx, cl, some al.	Medium (100-125).	do.	City wagon scales.	On track, private warehouses.	Cut too late; reddish color; presence of fine grasses.
Philadelphia, Pa.	Tim, cl-mx, some al.	Small <sup>2</sup> (80-100), large.	Door <sup>5</sup> .	Consignee's, shipper's.	Private warehouses.	
St. Louis, Mo.	Tim, cl-mx, al, pr, cl.	Large <sup>2</sup> (150), box pressed, Medium, large.	None.	do.	do.	
Toledo, Ohio.	Tim.		do.			
Washington, D. C.	Tim, cl-mx, cl.					

WESTERN MARKETS.

Boise, Idaho.....	Tim, al, tim-mx.....	Small.....	None.....	City wagon scale, shipper's, consignee's.....	Private warehouses.....	Timothy and mixed hay often cut too late. Meadows are allowed to become too old, resulting in a mixed hay not in demand. Streaked bales caused by improper curing; prairie hay not uniform in quality.
Butte, Mont.....	Tim, al, bluejoint.....	do.....	do.....	Railroad, shipper's, consignee's.....	do.....	Grain hay often cut too late; presence of dirt and weeds; hay sometimes contains too much moisture.
Denver, Colo.....	S. Park wire-gr, al, Colo. upland.....	Small <sup>2</sup> (80), 16 by 18 inches.....	do.....	Railroad, city.....	do.....	Low-grade timothy caused by other grasses in meadows used too long for hay.
Los Angeles, Cal.....	Bar, wh, oat, al, tim.....	Medium (150).....	do.....	City wagon scale, shipper's, consignee's.....	do.....	Irrigated hay too coarse; first crop of alfalfa often badly infested with fox-tail and other grasses.
Ogden, Utah.....	Al, tim.....	Small.....	do.....	Railroad, city.....	do.....	Alfalfa often baled before being thoroughly cured, causing it to heat and spoil.
Phoenix, Ariz.....	Al, wh, oat, bar.....	Small (70-90).....	do.....	City wagon scale, shipper's, consignee's.....	do.....	Clover hay often moldy or dusty; meadows used for hay too long.
Pocatello, Idaho.....	Al, tim.....	Small.....	do.....	Railroad, city.....	do.....	Timothy often contains foxtail; prairie hay of poor quality, due to cutting too late.
Portland, Ore.....	Tim, cl, wh, al, nat, vet-mx.....	Medium <sup>2</sup> (100-150), large (200).....	do.....	City wagon scale, shipper's, consignee's.....	do.....	Timothy often improperly cured in wet weather; timothy from old meadows contains too much redtop and wild grasses; rain spoils hay in partly baled stacks.
Pueblo, Colo.....	Pr, nat, al.....	Small <sup>2</sup> (80).....	do.....	do.....	do.....	Cane hay cut too late, too coarse; prairie hay has too much "red" late-cut grass; Johnson grass often too coarse.
Salt Lake City, Utah.....	Tim, al.....	Small <sup>1</sup> (80-100).....	do.....	do.....	do.....	Grain hay often cut too late; presence of dirt and weeds; hay sometimes contains too much moisture.
San Antonio, Tex.....	Jn, N. Tex pr, al, cane, C.....	Small (70-80).....	do.....	City.....	do.....	Hay often bales on account of improper curing or storing.
San Francisco, Cal.....	Wh, oat, w-oat, bar, rye, grain-mx.....	Large (200-220).....	do.....	Railroad, city.....	Holding yards, sold by auction system. <sup>6</sup>	Timothy meadows used too long; grain hay cut too late; considerable hay heats after being baled.
Seattle, Wash.....	Tim, al, wh, redtop-mx, Sound hay.....	Medium <sup>7</sup> (100-150), large (200).....	do.....	City wagon scale, shipper's, consignee's.....	Private warehouses.....	
Spokane, Wash.....	Tim, al, wh, bluejoint.....	Small (100-120).....	( <sup>8</sup> )	do.....	do.....	

<sup>1</sup> The several kinds of hay are shown in the order of importance of demand. The meanings of the symbols are as follows: al=alfalfa, bar=barley, Ber=Bermuda grass, C="coast" hay, cl=clover, corn=baled corn shucks, cr=crab-grass, gr=grass, Jn=Johnson grass, lt=light, ml=millet, mx=mixed hay, N=north, nat=naive, pr=prairie hay, S=south, Tex=Texas, tim=timothy, vet=vetch, w=wild, wh=wheat.

<sup>2</sup> Kind preferred.

<sup>3</sup> The official market weights referred to are those certified by inspectors officially appointed by the various hay markets.

<sup>4</sup> Medium or three-quarter bales, 17 by 22 inches, preferred.

<sup>5</sup> Required by State law.

<sup>6</sup> Private warehouses used for storing hay for city trade and export.

<sup>7</sup> Medium preferred, compressed for export.

<sup>8</sup> Consignee has privilege of inspection.

*The requirements of the various eastern, western, and southern hay markets, showing kinds of hay received, types of bales, methods of inspection, weights, and the most common faults that affect the selling price—Continued.*

## SOUTHERN MARKETS.

Markets.	Kinds of hay received.	Types of bales in demand (weights in pounds).	Inspection.	Kinds of market weights used.	Methods of receiving and selling.	Common faults that affect the selling price of market hay.
Atlanta, Ga.	Tim, al, Ber, Jn, mil, corn.	Small 1 (70-100), medium 3-wire (150).	Door, bale.	Official, shipper's, consignee's.	Private warehouses.	Johnson grass very often cut too late.
Augusta, Ga.	Tim, Jn, Ber, nat-mx.	Small 1 (80-100), large 5-wire (200).	None.	Shipper's, consignee's.	do	Local-grown alfalfa often improperly cured.
Birmingham, Ala.	Tim, al, Jn, lt-mx-tim.	Small 1 (80).	( <sup>2</sup> )	Railroad, shipper's.	do	Timothy often cut too late, has reddish color, and is mixed with briars and grasses.
Charleston, S. C.	Tim, tim and gr-mx.	Small.	None.	Railroad, city.	do	Timothy often cut too late, has red color, and contains trash and weeds.
Columbia, S. C.	Tim, Ber, Jn.	Small 1 (16 by 18 inches), large (18 by 22 inches).	do.	do.	do	First crop of Johnson grass often cut too late and improperly cured.
Fort Worth, Tex.	Jn, pr, al, C.	Small 1 (60-80).	do.	City.	do	Cane and Johnson grass cut too late; prairie has reddish color caused by being cut too late.
Galveston, Tex.	Tex pr, Jn, al, C, tim.	do.	do.	do.	do	Do.
Houston, Tex.	Jn, pr, al, C.	do.	do.	do.	do	Local-grown alfalfa off color and improperly cured.
Jackson, Miss.	Tim, al, lt-cl-mx.	Small.	do.	Shipper's.	do	Medium bales should have three wires; little demand for the lower grades of hay.
Jacksonville, Fla.	Tim, lt-cl-mx, some cl.	Medium 1 (100-125), small (70-90).	Door, warehouse.	Consignee's, shippers.	do	Red color in prairie hay is most common fault found with hay in this market.
Little Rock, Ark.	Pr, al.	Small 1 (60-80).	Door, plug.	City.	do	Local-grown hay often of poor color.
Macon, Ga.	Tim, cr.	Small 1 (80-100), large 5-wire.	None.	Shipper's, consignee's.	do	Sandwiched cars and bales often received; considerable hay off color; demand for timothy of better grades only.
Memphis, Tenn.	Tim, cl-mx, pr, al.	Small 1 (60-100).	Door, bale.	Official.	do	Large amount of lower grades of timothy received in the past has caused this kind of hay to cease to be in very great demand.
Mobile, Ala.	Tim, al.	Small (80-100).	( <sup>5</sup> )	Shipper's, city.	do	A large percentage of hay grades low on account of being too mature and improperly cured.
Montgomery, Ala.	Jn, tim, al, Ber.	Small 1 (80-100), 14 by 18 inches.	None.	do.	do	
New Orleans, La.	Tim, pr, al, cl-mx, cl.	Small, large.	Bale.	Platform scale at warehouse.	Terminal warehouse.	

Norfolk, Va.....	Tim, lt-el-mx, el.....	Small, medium <sup>1</sup> (100-125).	Door.....	City.....	Private warehouses.....	Timothy often cut too late, has reddish color, and is mixed with briars and grasses.
Pensacola, Fla.....	Tim, al.....	Small (80).....	( <sup>6</sup> )	Shipper's, city.....	.....do.....	More low-grade hay received than in demand.
Raleigh, N. C.....	Tim, nat.....	Small <sup>1</sup> (125), large.....	None.....	City.....	Private warehouses.....	Timothy often cut too late, has reddish color, and is mixed with briars and grasses.
Savannah, Ga.....	Tim, pr, al.....	Small (90), large.....	Warehouse, bale.....	Platform scale at warehouse, Shipper's.....	Terminal warehouse.....	Timothy often mixed with redtop, other grasses, and weeds.
Shreveport, La.....	Tim, al, pr, Ber.....	Small <sup>1</sup> (60-70), 14 by 18 inches.	None.....	Shipper's.....	Private warehouses.....	Local-grown alfalfa off color and improperly cured.
Tampa, Fla.....	Tim, pr, el.....	Small <sup>1</sup> (90-100), medium (120-150).	.....do.....	Cousigneer's, shipper's.....	.....do.....	Medium bales should have three wires.
Wilmington, N. C.....	Tim, some el.....	Small <sup>1</sup> (125), large.....	( <sup>6</sup> )	Tag.....	.....do.....	Timothy often cut too late, has reddish color, and is mixed with briars and grasses.

<sup>5</sup> Chamber of commerce sometimes inspects hay.  
<sup>6</sup> Buyer has privilege of door inspection.

<sup>1</sup> Kind preferred.  
<sup>2</sup> Hay often inspected en route.  
<sup>3</sup> Inspection under Little Rock Exchange rules.  
<sup>4</sup> The official market weights referred to are those certified by inspectors officially appointed by the various hay markets.



**BALTIMORE HAY MARKET.**

Baltimore has three warehouses for storing and handling hay. One is operated by the Baltimore & Ohio Railroad, one by the Western Maryland Railway, and one by the Terminal Warehouse Co. The Terminal Warehouse Co. owns six or eight different warehouses for use in unloading and storing different articles, such as canned goods and hay, flour, implements, and other articles that are shipped into Baltimore. The Terminal hay house is by far the most up to date. It is said by good authority that this warehouse is one of the best in the country. This warehouse is a large brick affair with a capacity of 250 cars. It is divided into a number of rooms which have brick walls on the four sides. The rooms connect with each other by small doors large enough to admit a hand truck loaded with baled hay and have fireproof doors. These doors are closed every night, and if a fire should break out in one room, whose door was open, the door would close as soon as the fire had burnt a small rope which holds the door open. The entire contents of one room could be destroyed and the rest of the warehouse would be saved. In fact, this actually did occur in a warehouse in another city, built on the same plan as this one. The terminal warehouse handles all the hay that comes to Baltimore by the Northern Central or Pennsylvania lines. As soon as a car of hay reaches the city it is taken to the terminal warehouse, carefully weighed, unloaded, and stored in a room where it may be inspected and sold.

All the hay that comes to this city is stored in the warehouse. No track sales are made. If two or more grades of hay are shipped in one car it causes no trouble, for it will be divided into separate piles in the warehouse.

**WEIGHING HAY.**

The weighing of hay at the terminal warehouse is a matter of importance and is carefully done. The cars are accurately weighed, heavy and light, or weighed in loaded and out empty. Two employees of the warehouse do this weighing; one person alone never weighs the hay.

The number of bales from each car are carefully counted, weights are guaranteed not to vary over 1 per cent from confirmatory weights to be obtained on wagon scales during delivery, provided the delivery is accomplished within 15 days after the hay arrives. A certificate of the number of bales and weight is issued.

The warehouse people have nothing to gain by weighing the hay short. In an elevator where grain is weighed short the surplus grain will remain in the bottom of the bin after the balance has been removed, but with hay this is not possible. If a buyer thinks the hay has not been weighed correctly he can demand that it be reweighed on wagon or small scales. Should there be a difference of over 1 per cent the reweighing will be done free, otherwise he will have to pay for it. The warehouse company is responsible for the loss of bales after the hay reaches it.

## CHARGES ON STORED HAY.

On arriving the hay is unloaded, piled for inspection, and stored and insured free of charge for a period of five days. If the hay is sold and is to be shipped again, it is reloaded free of charge if done inside of the five-day limit.

Subsequent storage rate is 30 cents per ton for each period of 10 days, the fire risk being that of the owner.

The cost of unloading, weighing, baling for inspection, and re-loading is paid by the railroad company to the Terminal Warehouse Co. This is done by the railroads in order that the cars may be ready for use in as short a time as possible.

## SHORT WEIGHTS.

The majority of commission houses sell hay on terminal weights, and tag weights are not considered unless known to be correct.

## CAUSE OF SHORT WEIGHT IN ONE CASE.

A prominent firm had been receiving hay from a shipper who always claimed that he was not getting a square deal. One car of hay was sent in, weighed, light and heavy, reweighed when unloaded, and again in a day or two when sold. The three weights did not vary over 50 pounds. The commission man then went to the home of the buyer who was then loading cars for shipment. When asked where his scales were (for all the bales were tagged), the shipper had to admit that he did not have any scales and the hay had not been weighed. There was no further trouble about short weights with that shipper. Some shippers mark a whole box of tags before the baler even starts on a job.

## GRADING AND INSPECTION OF HAY.

The Baltimore hay market has adopted the grades of the National Hay Association. An official hay inspector (who is not in the hay business or in any way connected with any commission firm) inspects and grades the hay when asked to do so. All hay is not inspected and graded. In fact, only a small percentage is graded by the official inspector. If a shipper has confidence in his commission man, he does not care to have the hay graded, because it will sell just as well if not graded and save inspection charges. Dealers that buy hay in the city are as good judges as the commission men in many instances, and rely on their own judgment to tell them what the hay is worth, hence it is not always necessary to have the hay graded. If a consumer orders No. 2 timothy hay, the dealer selects hay that will fill the bill.

## WHERE BALTIMORE GETS ITS HAY.

Considerable hay is shipped from New York, especially the north-western part of New York, and more especially in that section around Weedsport, but the best hay and also some of the poorest comes from

Michigan. Freight rates are such that the hay can be shipped from Michigan profitably at the present price. Ohio and Pennsylvania also furnish considerable hay. It is said that the best hay comes from Michigan because that is a newer State, the soil is in a better state of fertility, and there are fewer weeds and fine grasses. New York hay can be easily distinguished by the large amount of fine grasses and weeds, such as plantain, daisy, etc., that it contains. Sometimes a lot of hay is fully one-half weeds and is almost worthless for feed, evidently because the meadows were kept down longer than they should be and the system of farm management was very poor.

#### SIZE OF BALES BEST SUITED TO THE MARKET.

Bales weighing about 100 pounds are most in demand. These should be well baled and have three wires instead of two, as is the custom in some places. Large bales weighing from 200 to 230 pounds are not in demand here and do not sell as well as the smaller bales, but within the last year there has not been quite so much objection to them as before.

It is a fact that if two cars of the same quality of hay are sent here, one in small and the other in large size bales, the small baled hay will oversell the large bales from 50 cents to \$1 per ton or more. The most important reason for this is that the small bale is more easily handled than the large bale. The small bale can be handled by one man, will load well in almost any size of car, and is the best size for export and for the small consumer in the city. Farmers and shippers would do well to bear this in mind when shipping hay to Baltimore.

#### BADLY BALED HAY.

Conditions noted in the terminal warehouse illustrate the fact that often hay is badly baled. The ends of some of the bales were almost round and the edges and sides were very uneven and rough; in fact, the bales looked like they had almost been torn to pieces. Such bales could not fail to attract the buyer's attention, especially if piled near a load of carefully baled hay. Statement was made that such poorly baled hay would not bring within \$1 or more of what it would if it had been properly baled. This statement was probably correct, for most of the bales had only two wires on. Some bales were twisted in the form of a half moon, and, one of them being examined, actually burst open when turned over.

#### HAY BALED FROM CERTAIN MAKE OF BALERS.

On examining the different lots of hay, a load was noticed that was very nicely baled, having straight edges and square corners. When remark was made to a commission man about this hay being baled so well, he said, "Yes, that is true; but it will not sell nearly as well as if it had been baled by some other make of machine; and, in fact, we can not sell that hay at all to some customers. It will sell for \$1.50 less than if it had been baled by another machine." The reason was that hay, baled by this kind of baler, did not have any more than two or three folds at most, while almost all other bales have from 10

to 12. When a bale of this kind has the wires removed it does not spring open like an ordinary bale. It is almost impossible to tear it apart, as is necessary when it is fed. One customer said that he fed his cows 50 pounds of hay per feed for the reason that he could not tear the bale apart. The discrimination against such a bale is just, and the farmer should know that he must conform to the demands of the feeder rather than to the maker of the baling presses.

#### TROUBLE CAUSED BY SMALL CARS.

In the past considerable trouble has been experienced in not being able to load a small car to its minimum capacity. This trouble has almost ceased here because these small cars have been taken off and replaced by larger ones.

#### WHAT INFLUENCE BUYERS OF HAY HAVE ON THE PRODUCTION OF A BETTER GRADE OF HAY.

When choice timothy hay brings only \$3 or so more than poor grades of hay, farmers in general are not going to make a special effort to raise better hay. This is especially true when fine grasses and weeds are the cause of the hay being poor. Buyers do not make enough distinction in price between high and low grades. An illustration is given by a prominent dealer to show how he improved the quality of hay. He had been buying hay of poor quality from a certain locality and finally decided not to pay as much as usual for this poor hay. As a result the farmers could only sell their best hay, and many became very indignant over the low price offered for poor hay. They soon realized that they must do something if they wished to make money on their hay. Within two years or more there was a decided improvement in the locality, and farmers tried and did produce a better grade of hay. If commission men would use their influence, they could lessen the production of low-grade hay.

#### THE RELATION OF COMMISSION MAN, DEALER, AND CONSUMER TO EACH OTHER.

As a rule the commission man does not buy hay from the shipper, although a great many firms do, but sells the hay for the shipper on commission. The dealer buys his hay from the commission man, who may also be in the wholesale business. The consumer can not go into the market and buy hay direct from the commission man. It is true that he can select a car of hay in the warehouse, but it must come to him through some dealer. Should a consumer succeed in buying from a commission man, the dealer would refuse to do business with him from that time on. The commission men use their influence to make the consumer buy hay through the second man or the dealer.

#### WHO FEEDS THE VARIOUS GRADES OF HAY?

In visiting several of the large livery stables of this city it was found, without exception, that the rule was to feed good hay. Most liverymen feed choice or No. 1 or No. 2 hay, but no low-grade hay was

used in any of the livery stables. Well-cured timothy and clover mixed is also fed in the best barns. Feeders say that horses get tired of straight timothy hay, and that mixed hay is given for a change, or, to use one man's expression, one would get tired of dry bread if he had to eat it all the time, so clover is given, and the "bread is buttered."

It is not necessary to dwell at length on the question of selling poor-grade hay.

It is reported that much poor hay is bought and fed by those who own mules, and also a lot of this hay is fed to cows. There are some people who buy this poor hay simply because it is cheap.

It may be of interest to know that owners of draft horses, as well as of livery horses, feed the best timothy hay. One such man claims that even though with a good ration it is hard to keep the livery and draft horses in good flesh. One firm feeds its horses four times a day, the extra feed being given at 1 o'clock a. m.

#### MARKET REPORTS.

These reports are made up from the reports of sales on different products, the amount of the sales, and the price. The representative of the hay, flour, and grain trade then publishes these reports.

#### HAY USED ON CATTLE TRANSPORTS.

A hay and grain company has a very large business in supplying hay for cattle transports. The hay used is the best timothy and clover mixed. It is fed in preference to straight timothy.

#### EXPORT HAY.

Until the last two years there was considerable hay exported from Baltimore. All of this goes to England, mostly to Liverpool and Glasgow. The Liverpool market requires a mixture of timothy and clover, while the Glasgow market requires a straight timothy, the large or 200-pound bales being preferred. The exporting of hay depends directly on the size of the crop in England and also on the price at which it can be bought in this country.

#### INCORRECT WEIGHTS.

Until quite recently the weights of hay shipped over one railroad to Baltimore and weighed on the railroad company's scales were not reliable. This was not because the company willfully weighed the hay incorrectly, but was on account of carelessness.

If a car of hay arrived in the evening or the weighmaster was in a hurry to get away, the car was simply weighed heavy, and the light weight, which was printed on the car, was taken. In many instances the car might have had a new door, a new roof, or new pair of trucks since the first light weight was printed, and consequently the weight would be incorrect. When choice hay is selling around \$20 per ton, errors in weight are important. Lately this railroad company has been weighing hay more correctly, and when it is reloaded from the company's sheds there is a chance to check the former weight.

## VALUE OF TIMOTHY AND ALSIKE-CLOVER MIXTURE.

A few cars of this mixture of hay were seen in the warehouse, and one feeder is very enthusiastic about alsike clover. He claims that he would rather have 1 ton of alsike mixture than 2 tons of red-clover mixture, and always buys alsike hay when he can get it.

## TIMOTHY CUT TOO GREEN.

One feeder said that he bought a car of well-cured timothy hay, but the horses did not relish it. It was cut and cured too green and apparently had lost its palatability.

## HAY CUT TOO RIPE.

Considerable timothy hay was seen in the warehouse that was cut too ripe as was shown by the color of the leaves and weeds.

## CINCINNATI HAY MARKET.

## WAREHOUSES.

There are no terminal or public warehouses in this city. All are owned by the hay commission men. One company owns three warehouses, the largest of which has a capacity of 250 cars.

## INSPECTION AND GRADING OF HAY.

Nearly all hay sold in the city is graded by an official hay inspector. This inspection is of two kinds, viz., door inspection and bale inspection. When a car of hay arrives, the inspector opens the door and secures a sample of hay from the bales nearest the door. This sample is properly tagged, showing grade and number of the car. The carload lot is sold with the understanding that it will all grade the same as the sample. If, when the car is unloaded, there are no other grades found, the hay is not reinspected. Should there be a lower grade found, no more hay must be taken out until the inspector arrives. Hay is never inspected after it is unloaded from the car.

## BALE INSPECTION.

Some firms insist on bale inspection. The inspector then grades each bale separately as it comes from the car. The four sides of each bale are carefully examined, and a record of the bale is kept. If a car has more than one grade in it, each grade is piled separately. Settlement with the buyer for the low grades is then made according to the day's market prices. Door inspection costs \$0.40 per car, and later on bale inspection costs \$0.60 per car. There is one chief inspector for hay and a number of deputy inspectors. Any member of the chamber of commerce who changes a tag is liable to be expelled from the floor for such conduct.

## WEIGHTS.

All weighing of hay and grain is under the supervision of the chamber of commerce. There are 36 weighmasters stationed in the

various elevators and warehouses. These weighmasters change places about every 30 days.

Hay is weighed on small scales loaded on small hand trucks. Small bales are weighed three at a time and large bales (200 to 230 pounds) two at a time. The inspector and weighmaster each keep strict account of the number of bales and compare totals after every car is unloaded.

The hand trucks and hay are weighed, the weight of the trucks being known. Each hand truck has a lead bar on the under side which is used to bring the truck up to a certain weight.

#### SHORT WEIGHTS.

All bales are sold on chamber of commerce weights. Tag weights are not taken at all. The tag weights on 10 large bales of No. 1 timothy hay were compared with actual weights, with the following results:

	Tag weights, pounds.	Actual weight, 2 bales at a time, pounds.		Tag weights, pounds.	Actual weight, 2 bales at a time, pounds.
1 bale.....	215	} 417	1 bale.....	225	} 402
1 bale.....	215		1 bale.....	205	
1 bale.....	200	} 425	1 bale.....	205	} 430
1 bale.....	225		1 bale.....	220	
1 bale.....	235	} 445			
1 bale.....	225		Total.....	2,170	2,119

Difference, 51 pounds.

These bales averaged between 5 and 6 pounds short, according to tag weights. Several single bales that were weighed went as much as 30 and 35 pounds short. It is no wonder that dealers will not take tag weights.

#### LOSS DUE TO HANDLING.

After a car of No. 1 and No. 2 straight clover hay had been unloaded, the hay and chaff which had fallen from the bales was swept up and weighed. It was thus found that there was about 100 pounds loss due to handling a car of hay once. This equals one-half of 1 per cent, or at \$18 per ton there was a loss of \$0.09 per ton, for this particular car.

#### LOOSE BALES.

When a loose bale is found in a car it is graded the lowest grade found in the car. If all is No. 1 timothy, it gets the same grade as the rest. If there are grades like choice, No. 3, or no grade, a loose bale of choice timothy will be graded no grade, which is the lowest found in the car lot.

#### INSPECTION INFORMATION.

On the labels on samples of No. 2 or lower-grade hay the inspector gives his reasons for grading; for instance, it may be discolored or cut too ripe, etc.

## WHY CLOVER HAY GRADES LOW.

The one great trouble with clover hay at this market is that it is cut too ripe. If cut five or six days earlier, a large per cent would grade No. 1.

No-grade clover is caused by the white mold and not usually dry weeds and stubble. The most common weed noticed here is whitetop.

## ALFALFA.

A little alfalfa finds its way to this market, and is selling for about \$13.50.

## SIZE OF BALES MOST IN DEMAND.

The small bale, weighing about 100 pounds, is most in demand. City feeders will pay \$0.50 to \$1 more for the same grade of small baled hay than for the large 200 to 230 pound 5-wired bales. This is because it handles better and is more convenient to put into the hay loft, and can be handled by one man.

## HOW BAD ROADS AND BUSY TIMES INFLUENCE SHIPMENTS.

In localities where there are turnpike roads there is no falling off in shipments during the spring months. Where there are dirt roads the opposite is true.

Perhaps the greatest seasonal influence is felt in May and June, when farmers are busy preparing and planting corn. After corn is planted there is quite an increase in the amount of hay shipped.

## UNLOADING AND RELOADING CARS.

The buyer pays all charges for unloading and the seller must pay the charges for reloading. This is very different from the way hay is handled in Baltimore.

## HOW HAY IS SOLD.

The small samples from each car, obtained by the inspector, are taken to the floor of "change" and are used in the same manner as samples of wheat, corn, etc. In buying a car of hay by sample it is understood that the sample represents the entire contents of the car. When other grades of hay are found the buyer may reject the entire car or pay for the inferior hay at regular market price for that day.

## MARKET REPORTS.

The market reports are issued by the chamber of commerce and are obtained by taking the average price paid for each grade each day.

## SAN FRANCISCO HAY MARKET.

This market is in a class by itself and perhaps always will be on account of the kind of hay received and manner of disposing of the hay.



## KINDS OF HAY IN DEMAND.

Wheat hay is the standard hay and brings more money than any other kind. Russian red oat hay and wild oat hay are also in considerable demand. In Oakland, however, there is a greater demand for oat hay than for wheat hay.

## THE AUCTION SYSTEM OF SELLING HAY.

The method of determining daily prices for hay is unique and different from any other market in the United States. It is called the "auction system." All hay, on arrival, is placed on the holding tracks of the Southern Pacific and the car doors are opened so that the hay can be inspected by the buyers.

At 9 every morning the buyers and sellers meet at the holding yard and the auctioneer receives bids on the cars. Very few cars, however, are sold as the commission man can declare "No sale" if he thinks the best bid is not high enough.

The bidder will not bid within about \$0.50 or \$1 of what he will really pay and the commission man holds the hay a little higher, during the bidding, than he will take.

In this manner the buyer and seller get an idea of the prices of hay for that day, and as all the buyers have inspected all of the cars they are ready to make purchases as soon as the auction is finished.

## GRADES OF WHEAT HAY.

There are no official grades of hay in this market on account of conditions which result in a variety of kinds of hay. Dealers frequently talk about "choice" hay although they can not give a definite rule for this grade.

There are two kinds of wheat hay, namely "upland" and "bottom" hay. The upland hay produces less per acre than lowland hay, which will sometimes produce 5 tons per acre.

The lowland hay is coarser, ranker, and not as palatable as the upland or dry-land hay. Horses usually prefer the upland hay to the bottom-land or irrigated hay. The upland hay is quite sweet while the bottom-land hay is somewhat tasteless.

"Dryness" is another important factor in determining the quality of hay. Upland hay is usually dry while the lowland hay contains more moisture and is not at all brittle. In the East dry timothy hay does not sell as readily as hay with a normal moisture content, while the reverse is true in regard to wheat hay in the West. Dealers say that good wheat hay will keep in any climate almost any length of time and will not absorb moisture as will grass hays.

## MIXED WHEAT HAY.

Considerable mixed hay is received in this market. The mixture may be wheat mixed with either tame or cultivated oats or barley.

Hay containing one-fourth oats will bring \$1 less than straight wheat hay. If it be one-third or one-half mixed it will sell for about \$1.50 to \$2 less than pure wheat hay.

## OAT HAY.

Considerable oat hay is received in this market. The cultivated Russian red oat brings the best price of cultivated varieties, but wild-oat hay will often sell better than cultivated oat hay.

## FOREIGN MATERIAL IN HAY.

The trade is quite particular in regard to trash in hay, especially dirt. Often serious complaint is made on this account. Dirt gets into hay because the hayrake is run too close to the ground and picks up the lumps with the hay. Dirty hay brings a much lower price than clean hay.

Wild oats and Spanish thistle often appear in hay and it is said that farmers can not get rid of the thistle.

## TWO KINDS OF MARKET HAY PRODUCERS.

Market hay producers for the San Francisco market may be divided into two classes, namely:

First. Those who grow hay every year for the market. This class grow and make good hay and nearly always cut the grain at the proper time, viz, between the milk and the dough stage, and therefore secure hay with a good color. They know their business, and if it is possible to secure "choice" hay they do it.

Second. The second class of hay producers are those that grow wheat for grain part of the time and part of the time for hay.

The season and weather conditions determine whether it shall be left for grain or cut for hay.

As a rule this class of producers do not secure a good grade of hay, because they do not prepare the ground properly and cure it improperly. Often when the hay is in proper stage to be cut for hay the farmer will wait for a rain so that grain will be produced. After waiting for some time he may decide that the rain will not come so the crop is cut for hay long after the proper stage for cutting grain hay.

## INSPECTION OF HAY IN THE FIELD.

Many of the hay dealers and commission men visit hay ranches about the time the grain is ready to cut and thus get an accurate idea of the kind of hay produced.

## SIZE OF BALE IN DEMAND.

This market is very particular in regard to the size and weight of bale. The bale in demand must be made with a certain kind of press and contains 18 to 20 cubic feet. Formerly bales about the size of a roll-top desk were received, but they were so large and unwieldy that the demand for them ceased.

The bale now in demand is called the three-fourths bale and weighs a little over 200 pounds, or about 180 cubic feet to the ton.

Hay is removed from the car to private warehouses that sometimes have a capacity up to 200 cars. The weighing of hay may be done by the railroad or city weighmasters.

## HOPS.

Hops are a crude agricultural product, without value for food or forage purposes, and for which there is practically no demand for local consumption at the place of production. Inasmuch as hops form a strictly money crop which usually requires a heavy cash outlay to meet the cost of production, most growers aim to realize on their crop immediately after harvest, and many growers, particularly on the Pacific coast, obtain through the system of advance contracts the funds necessary to meet the cost of cultivation and harvesting. The contracts are usually made for a single crop, but frequently they provide for the sale of two or three successive crops at a stated price for each year's crop.

Hops are dried artificially as soon as they are picked, and are then stored on the farm in specially constructed buildings for a period ranging from a few days to several weeks, when they are baled. As soon as baling begins the market season opens. Farm sales are made either on samples drawn from the bales and sent to dealers or to the dealers or agents who visit the farm and personally inspect the crop.

Farm sales may be made to one of several classes of buyers. Large growers, who may also be dealers, frequently sell direct to the consumer. Small growers usually sell to a neighbor who is a grower dealer, to a local dealer, to a commission agent who buys for wholesale dealers, or to the traveling buyers who represent large dealers located in the East or even in Europe. Auction sales are practically unknown. Producers occasionally consign their crop on commission, but the practice is not common.

Sales prior to harvest are usually made in advance of the growing season. The grower may contract to deliver his entire crop at a fixed price, or he may agree to deliver a stipulated number of pounds estimated as less than his normal production but sufficient to insure a return large enough to about cover the cost of production. On the remainder of the crop he takes the market chances. In many cases these prior sales are made to enable the producer to obtain the money wherewith to pay the expense of growing the crop. These advances of money are made by dealers or by local banks which frequently are financed in part by hop dealers. Another class of advance sales is seen in the long-time contracts which some grower dealers make direct with the consumers, and which provide for the delivery to the consumer of a certain number of bales annually at a stated price. These contracts run from two to five years.

The selling unit of hops is the bale, which varies somewhat in weight but is usually reckoned at 180 pounds. Although every purchase contract ordinarily calls only for a specified number of bales, each of these is weighed, and the sum of the weights in pounds determines the quantity of hops for which the farmer is paid. The producer usually weighs each bale at the time the hops are pressed, and they are reweighed by the buyer when delivered to him by the grower. When a buyer purchases a lot of hops at the farm he usually inspects each bale at this time and there determines the grade. A small sample is drawn from the interior of each bale, and the grade is fixed according to the personal judgment of the buyer.

Many attempts have been made to form cooperative selling associations among hop growers, but in the main they have been unsuccessful. Occasionally a group of growers form a pool and agree not to sell except at a certain price, but the disasters which have overtaken many combinations of this kind deter many cautious growers from entering into such agreements. From time to time also attempts have been made to form hop growers' associations, but in the main these have proved unsuccessful.

The producers' market usually opens in September, or at the completion of the harvest, and the bulk of the crop is usually out of the producers' hands by the middle of December. Unless the producer has a desire to indulge in speculation with his crop he usually endeavors to dispose of it during the period of heavy marketing unless the price is so low that no profit may be realized by selling.

After the hops have left the farmers' hands they may pass through various channels before reaching the consumer. In case the sale has been made to the local dealer the hops are either received by this dealer and stored in his warehouse or they are transferred from the farm wagons to the car for shipment. This shipment may be made either to the large dealer or to the commission merchant at some central point, by whom the hops are usually received and stored in their warehouses pending reshipment to the next buyer. The commission merchant may now sell to the large dealer or the consumer, either directly or through a broker. The large dealer commonly sells only to the consumer, either directly or through a broker or factor. In case the producer sells to the agents of commission merchants or large dealers, the general course of the product is the same except that it does not pass through the hands of the local dealer. Sales made by producers are usually for cash, and in transactions between middlemen liquidation is customary at the end of 30 days. Although the local buyer usually anticipates collections by attaching a draft for the amount of the sale to the bill of lading, it is said that in transactions between the consumer and middlemen that the time of payment is very often fixed to suit the convenience of the purchaser.

After the crop leaves the farmers' hands the cost of marketing must be carried by the middlemen, and this finds expression in the increased price which the consumer pays as against that received by the producer. For hops purchased on the Pacific coast this includes one-half cent a pound for the buyer's commission, one-half to 1 cent a pound cost on contracts for shortage, insurance, cartage, etc., and 2 cents per pound for freight in case the hops are sent to the East. The selling cost, which is relatively high, and the dealer's profit is also a part of the marketing cost. Large dealers frequently maintain a number of traveling salesmen, who visit consumers, display samples, and take orders for deliveries if possible. Sales to consumers are usually made subject to inspection and rejection at the time of delivery.

Perhaps no other agricultural crop offers so wide a field for speculation as hops. The course of the market is influenced to an unusual degree by reports of weather conditions and crop prospects in the various producing countries of the world as well as by the estimates of the stock of the previous year left in the hands of the consumers. In case crop conditions are good in the various hop-producing coun-

tries and a normal crop is realized, production is very apt to outrun consumption and prices rule downward. When crop conditions are poor in one or more sections and a small harvest results prices tend to rise.

Following a year of high prices there is almost invariably a large increase in acreage, with the result that in a normal year with good crops the production is so large that buyers can afford to be very particular, and the producer who has anything other than choice quality finds difficulty in marketing his product. In all the hop-growing sections of the United States intelligence of the hop prospects and ruling prices as cabled from the various producing countries of the world is abstracted in the local papers. It is customary for the large dealers in Germany, Austria, and England, as well as in the United States, to circularize dealers and large growers, giving estimates of the acreage, probable production, and course of prices for the current year. These reports are a large factor in deciding the new acreage that will be set out in any given year, in governing the prices fixed in advance contracts, and in determining the readiness of the grower to sell when the market season first opens. It frequently happens that the season's production is largely underestimated, and the farmer who has neither contracted nor sold at the very opening of the market often finds his crop diminishing in value from day to day. However, on the whole, it seems that the great speculative movements with this crop take place after the bulk has left the hands of the producer, and often the farmer sees the dealer selling at a heavy advance over his purchase price. Thereby the farmer is frequently led to speculate on his own account the following year, and very frequently with disaster.

It seems probable that through the agency of the telephone, the daily paper, and the various circulars the average hop grower is in reasonably close touch with market news. What is generally lacking is a broader basis of fact respecting the conditions which determine the state of the market. Far more important than increased service for reporting current prices is an adequate system for obtaining exact data as to the acreage under hops, new acreage set out each year, and actual crop conditions throughout the growing season. In addition to this it is important that the hop producer should be more thoroughly informed as to the economic relations of his share of the crop to the production of the crop as a whole. There is a wide range in the productiveness of land now under hops. The yield in different sections frequently varies as much as 1,500 pounds per acre without a corresponding variation in the cost of production. It is evident therefore that a grower who produces hops at the rate of 1,000 pounds per acre can not successfully compete in the market with another grower who produces from 1,500 to 2,500 pounds per acre. Again, it seems probable that many hop growers are operating on a scale too small to be economically profitable or that another crop instead of hops could be grown by them with much more certain prospects of returning a profit. The general course of the industry during the last 20 years points clearly to the necessity for giving close attention to those considerations in the future if the growing of this crop is to be continued on a profitable basis.

## LIVE STOCK.

### CATTLE AND SHEEP.

The methods of marketing these classes of live stock are practically the same. Although the area devoted to the raising of live stock on the range appears to be rapidly decreasing, the range run of both beef cattle and sheep is still very extensive, especially in the fall of the year. The live stock sold from the ranges either goes to market direct for slaughter or for sale for further feeding. The slaughtered stock is sold off of grass and is billed by the owner to a commission house at the market, which firm in turn sells to the packers. The sales are made by representatives of the commission houses and the packers meeting in the yards and agreeing on the price.

Most cattle and sheep fed (fattened) in the corn belt, and the sheep fed in such large land-feeding centers as what is called "the Fort Collins district," in Colorado, are produced on the range and sold to the feeders. The cattle sold in this way generally pass through the hands of commission houses on the market. The lamb feeders in the Fort Collins district, however, buy their lambs direct from the ranchmen. After the cattle and sheep have been fattened they are sold to the packers through the commission houses in the usual way. In Tennessee lamb clubs have been organized for the purpose of selling in large quantities, practically in a cooperative manner. There are also occasional organizations of this kind in other States.

### ELEMENTS OF COST.

Of the influences which during the last half century or more have affected the cost of marketing live stock, some of the most important were those relating to their transportation. The cost of transportation, as discussed in this article, includes not only charges for freight, feed, attendance, yardage, and other expenses of the road, but also losses in transit and other items involving more or less directly the expenditure of money, labor, and time in moving meat animals from their native farms or ranges to places of slaughter.

### DRIVING AND HAULING.

#### CONDITIONS IN EARLY DAYS.

Prior to 1850 it was generally the practice to drive live stock to market on foot. At that time, over routes in many portions of the country, pasturage was free and cattle could be grazed along the way as they were slowly driven to market.

In those days driving to eastern seaboard cities from points as far west as Iowa was by no means uncommon, and cattle from Texas were also among those on the road. A news item of 1855 mentions a drove of several hundred cattle from Texas passing through Indiana County, Pa., on the way to New York City. They had left Texas four months previously.

## TRAILS WEST OF THE MISSISSIPPI RIVER.

Among the most important live-stock trails west of the Mississippi River were those which led from Texas. One trail extended to pasture lands in the Kansas River Valley on the line of one of the Pacific railroads. Near Abilene, Kans., a station on this railroad, thousands of cattle were wintered annually in the late sixties and early seventies. Another destination of the cattle trails from Texas was grazing lands along a railroad extending through the Dakotas and Montana.

The increase in farming and the accompanying restriction of the open range, together with the westward extension of the railroads, tended to move the northern terminus of a trail westward. This movement was going on when railroads from the North and East reached southwestern Texas and New Mexico.

The largest number of cattle driven in any one season from the Southwest to northern ranges has been estimated at 416,000 head.<sup>1</sup> This was in 1884, about the time of the opening of a through railroad line over that route, and from that year the number moving over the long trails rapidly diminished.

The valley of a river was often found a convenient course, although not always a direct one, over which to drive sheep from their native ranges to pastures along the railroads which reached eastern markets. One route from Oregon led up the valleys of the Columbia and the Snake Rivers, across the mountains of Idaho, and down the valley of the Platte to shipping points in Nebraska.

## COST OF TRAILING OR DRIVING.

Cattle driven to Abilene, Kans., from Texas ranges, an average distance of some 700 miles, spent about two months on the trail. It has been estimated<sup>2</sup> that the average cost of bringing cattle over this trail was \$2 per head, in addition to a loss of 20 per cent, due to stampeding, stealing, and other misfortunes of the road, making a total of \$2.40 per head, or somewhat less than the freight rate over about the same route in 1908.

According to one estimate, the wages and cost of subsistence of eight men engaged in trailing 350 cattle from range to shipping point in 1908 would average \$72, or about 20 cents per head. Another estimate of cost of trailing from range to shipping point for the same year was from 5 to 25 cents per head, including the cost of the round-up, but not allowing for losses on the trail.

The trailing of sheep involves relatively less expense. It has been stated that less than half the number of men will be required for a given number of carloads of sheep than for the same number of carloads of cattle. The cost of trailing sheep in 1908, not including losses on the way, has been estimated as about \$130 per month for a flock of 2,000 to 3,000 sheep, or from one-half to four-fifths of 1 cent per head for a trail of average length.

Over long distances the commercial advantage of the railroad over the trail is well illustrated by the readiness with which the latter is

<sup>1</sup> Bureau of Animal Industry, Annual Report, 1887, p. 333.

<sup>2</sup> U. S. Commissioner of Agriculture Report, 1870, p. 350.

abandoned whenever railroad service is available. One important advantage in favor of the railroad is the saving of time. From southwest Texas to the most remote ranges of the North but a few days' haul now intervenes, while under the old conditions two or three months of trailing were necessary. The decline in the supply of free pasturage and inaccessibility to water along the way over a number of the old routes, due to the settlement of the country, have added much to the difficulty of trailing.

#### IMPORTANT ROUTES.

The per capita meat supply east of the Mississippi River has been rapidly decreasing, and the deficiency in this region is drawn from the farms and ranges of the West. For this reason the general tendency is for long-distance shipments of live stock from the West toward the East, even as it was in the earliest days of the western live-stock industry. The old routes from the ranges of the Southwest to northern grazing lands are still followed, the railroad taking the place of the trail. From the big markets along the Missouri River, and also from Chicago and St. Louis, live-stock routes lead to the Atlantic coast, a large number of shipments passing through Cincinnati, Pittsburgh, or Buffalo.

In addition to the through routes of live-stock shipments, many lines of local traffic center at each market. The number of animals received at a market from various local shipping points within the radius of a day's hauling is sometimes larger than the number coming over long-distance routes.

#### LOCATION OF RANGE COUNTRY.

Of the relatively large supply of meat animals west of the Mississippi River a considerable fraction of the cattle and sheep is on the ranges. With the development of the country grazing lands have been more and more restricted by the extension of agriculture. The regions in which permanent grazing lands, or ranges, are to be found include some highly cultivated lands, especially on the Pacific coast and in irrigated sections of the "Great American Desert."

Of the grazing regions in which cattle predominate the largest extends northward from the mouth of the Rio Grande, with but one interruption, to the Canadian border, and westward for varying distances from a line corresponding roughly with the one-hundredth meridian. A second group of ranges on which cattle are greatly in excess of sheep extends along the Pacific coast from the Mexican border to the Columbia River, while a third group reaches from southern Utah through western and southern Arizona into southern New Mexico. Of the other ranges used chiefly for cattle one group is located in the southwestern corner of Texas, another is in Wyoming south of Yellowstone National Park, a third touches the eastern shore of Great Salt Lake, and a fourth includes parts of northern Nevada and southern Oregon.

The principal region in which the grazing lands are used chiefly for sheep is shaped roughly like the letter "T," with the top extend-



ing westward from central Wyoming to central Washington, and the stem reaching south from Montana to southern Nevada. Two other groups of sheep ranges are in central Montana and central New Mexico, respectively.

#### ILLUSTRATION OF TRAIN SERVICE.

An example of the complex nature of live-stock movements is furnished by a service consisting of one or more through trains made up at Jackson, Mich., and run to Buffalo via Detroit and Niagara Falls. These are composed of cars from four local trains which come to Jackson from as many different directions. One train leaves Bay City at 10.30 a. m. and is due in Jackson at 6 p. m. the same day; another from Ceresco, about 8 miles east of Battle Creek, is due to arrive half an hour later, having spent five and one-half hours on the way. A third train from Grand Rapids is due at 7 p. m., and the fourth leaves Battle Creek at 10.30 a. m., proceeds southwest as far as Fairfax, then turns northeastward and runs to Jackson, the entire running time being scheduled as eight and one-half hours. The through trains for Buffalo are expected to leave Jackson about 9 p. m., or two hours after the last local is due. The distances traversed by these local trains range from 37 to 115 miles and their average rates of speed, including stops, from 6.8 to 15.8 miles per hour.

#### STOCKYARDS AND FEEDING STATIONS.

##### FACILITIES.

The facilities for handling live stock at large markets may be illustrated by the capacity of the Union Stock Yards at Chicago. These yards, according to recent information, cover an area of 500 acres and contain 13,000 inclosures. Separate accommodations, except at unloading and loading platforms, were provided for each kind of stock; sheep and hogs were kept in sheds of two or more stories each, while cattle occupied open pens, each holding from one to several carloads. The inclosures at the loading and unloading platforms each held slightly more than one carload of stock. These yards could hold at one time 75,000 cattle, 125,000 sheep, 300,000 hogs, and 6,000 horses and mules. The movement from one part of the yards to another was facilitated by overhead viaducts and by miles of alleyways among the pens. The water system which supplied the pens had a reservoir holding 10,000,000 gallons and pumps whose daily capacity was 8,000,000 gallons.

In addition to the large stockyards, there are minor feeding stations along the routes from local shipping points to large markets. The area devoted to feeding purposes at these stations varies from small feed yards, where only hay and grain are furnished, to large pastures of 1,000 to 3,000 acres, such as are found at some points west of the Missouri River. Facilities at feeding stations vary greatly. At some places scarcely more than a chute is available, while at others there are platforms and chutes for unloading and loading, pens for feeding and watering, scales, and other appliances for handling the stock.

## HANDLING TRAFFIC.

The time and labor required to unload live stock from a train at a stockyard and to place the animals in a convenient location for selling is an element in the cost of transportation. Live-stock trains are so run as to arrive at Chicago or other centers in time for the animals to be fed, watered, and weighed before the morning market opens. On reaching the yards a train is stopped alongside a platform across which are a number of chutes. The distance between the gateways of pens is approximately equal to an average car length, so that each car door on one side of a train may be opposite a gateway, and the stock may be readily moved from the train across the platform and into the pens. As each car is unloaded a record is made of the number of animals as they enter the chutes, and another record is made when they are driven from the unloading pens. These records include also the names of the consignor and consignee, the numbers of cars and chutes, and other data necessary to identify the stock. Each consignment is kept separate as it is driven from the place of unloading along alleyways and over viaducts to the cattle pens, hog houses, or sheep barns, where the animals are fed and watered and where sales take place.

The owner of stock is usually represented in the market by a commission man. Buyers may be divided into at least four classes. One consists of men employed by the local packing houses; another is purchasing for farmers and feeders; a third represents the exporters; and still another class consists of speculators or traders who buy cattle, classify, and sell them to packers, exporters, or feeders. By the middle of the afternoon the market is usually over, and the animals that have been sold for shipment are generally driven to the loading chutes and placed on trains which leave the same afternoon or night. Those purchased by local packing houses are promptly slaughtered.

At Chicago the movement from cars through the chutes and pens to the alleyways beyond is estimated to average for all stock one minute per carload. This includes counting the animals, making the required records, and waiting in the unloading pen for a place in a procession of consignments moving through the adjoining alleyway. The actual movement from car to chute requires little time, a train of 40 to 50 cars being unloaded easily within 15 minutes.

## SHIPPERS OR ATTENDANTS.

In the absence of complete service at some unloading points over a given route it is necessary for attendants or "shippers in charge" to accompany stock trains to assist in unloading, feeding, watering, and reloading the animals; but on through shipments between large centers, such as Chicago and Buffalo, it is not usual for shippers to accompany the stock. In the early days attendants were much more necessary than at present. When cars were overcrowded and the animals thrown down, one of the principal duties of the shipper was to aid them to their feet.

## NUMBER OF UNLOADING POINTS ON A GIVEN ROUTE.

Legal requirements are such that 36 hours may be taken as the maximum running time between feeding stations. From southern Idaho to Omaha three or four unloading points are usually necessary, one from Omaha to Chicago, and one from that point to Boston or New York. From Chicago to Pittsburgh the schedule time of important live-stock trains on two routes, in July, 1908, which illustrates present conditions, was 25 to 29 hours, and the average rates of speed from 17 to 19 miles per hour, including stops. From Kansas City to Buffalo via St. Louis and Detroit the time was 56½ hours and the average rate about 18 miles per hour. For traffic moving as fast as this, unloading points could be nearly 650 miles apart.

## CARRYING CAPACITY OF RAILROADS.

## NUMBER OF LIVE-STOCK CARS.

The total number of live-stock cars owned by railroads in the United States in the year ended June 30, 1907, was 69,997. Besides these a considerable number were owned by private car companies. The average capacity of a stock car in 1907 was 29 short tons, and the total for all the stock cars owned by railroads was 2,013,170 tons. This capacity is the weight of dead freight that the car is permitted to carry and not the weight of the live stock that can be comfortably loaded therein.

## DOUBLE-DECK CARS.

Double-deck live-stock cars were first used upon railroads in the United States before 1860. The advantage of a double-deck car depends largely upon the size of the individual shipment. When a single consignment of small animals is large enough to load two ordinary single decks, the use of one double-deck car will be a saving to the carrier. Freight rates are frequently lower in double than in single deck cars.

Of a total of 44,000 live-stock cars owned in June, 1908, by 17 principal live-stock carrying railroads, 7,800, or 18 per cent of the total, were fitted with double decks. If this percentage applied to the total number of stock cars owned by railroads in this country in 1907, there were then about 13,000 double and 57,000 single deck cars.

## AVERAGE CARLOADS.

From reports of stock yards and railroads it is estimated that an average number of meat animals to the carload at Kansas City and Omaha is for cattle about 25, hogs in single-deck cars about 75, and sheep about 120 per deck. Allowing as an average 25 cattle per car, the 57,000 single-deck cars owned by railroads in 1907 would carry at one time 1,425,000 head, and the total weight of these cattle, at 955 pounds per head, would be 680,000 tons, or 41 per cent of the total dead-weight carrying capacity of the cars. If 680,000 tons of dead freight were substituted for the same weight of live stock, only 23,000 instead of 57,000 cars would be required. Taking as an average number of sheep 120 per deck, the 57,000 single and 13,000 double

deck cars would carry at one time 9,960,000 head of sheep, which at an average of 100 pounds per head would weigh 498,000 short tons. The full capacity of these cars being 2,013,000 tons, the equivalent in dead freight to 70,000 carloads of sheep could be carried on 17,000 cars, thus saving 53,000, or 76 per cent, for other service. The 70,000 cars, if loaded with hogs of an average weight of 220 pounds and numbering 75 head per deck, would contain the equivalent of only 24,000 full carloads of dead freight.

## RAILROAD FREIGHT CHARGES.

The first railroad freight rates on live stock were quoted in dollars per car, regardless of the weight or number of the animals carried. This method of charge has been blamed for much of the trouble due to crowded cars, but with the establishment of charges depending upon weight, dealers have no longer much inducement to load too many animals in one car. From Chicago to New York, as early as 1879, rates on live stock were quoted in cents per 100 pounds, and nine years later rates from the Missouri River to Chicago and St. Louis were changed in the same way. Now, the rates over most of the leading routes east of the Rocky Mountains are quoted in cents per 100 pounds. West of the Rocky Mountains and over routes from the southwestern ranges through Denver northward in 1908 rates were still expressed in dollars per car.

## CATTLE.

For a large number of shipping points and destinations the principal items of transport cost for cattle from Texas ranges to Chicago, via Montana are shown in the statement below.

*Principal items in the average cost per head of moving steers from Texas to ranges in Montana, North Dakota, and South Dakota, and thence to Chicago, June, 1908.<sup>1</sup> (Applying approximately in 1912.)*

Item of cost.	Low.	High.
STOCK CATTLE.		
Trailing (driving) from ranges to local shipping points, Texas.....	\$0.05	\$0.25
Freight, Texas to Montana, North Dakota, and South Dakota, at \$100 to \$137 per car..	2.86	3.91
Feed en route at \$2 per car at each of 3 or 4 unloading points.....	.17	.23
Shippers in charge, estimated at \$2 per car.....	.06	.06
Trailing from railroad station to ranges, Montana, North Dakota, and South Dakota....	.05	.25
Total of items given, Texas to Montana, North Dakota, and South Dakota.....	3.19	4.70
BEEF CATTLE.		
Trailing, ranges to shipping points, Montana, North Dakota, and South Dakota.....	.05	.25
Freight, Montana, etc., to Chicago, at 35 cents to 66 cents per 100 pounds.....	3.85	7.26
Feed en route with an assumed average of \$2 per car at 2 to 4 unloading points.....	.16	.32
Shippers in charge, estimated at \$2 per car.....	.08	.08
Switching charges, Chicago, at \$2 per car.....	.08	.08
Feed, stock yards, Chicago.....	.25	.25
Yardage at Chicago.....	.25	.25
Total, Montana, etc., to Chicago.....	4.72	8.49
Total, Texas to Chicago via Montana, etc.....	7.91	13.19

<sup>1</sup> The estimates of cost from Texas to Montana, etc., apply to stock cattle averaging 35 head per 36-foot car, and the estimates of cost from Montana, etc., to Chicago apply to the same cattle after they have attained an average weight of 1,100 pounds each and average 25 head per car.

The average cost per head of shipping steers over a particular route is given by one of the prominent cattlemen of northwestern Texas, as follows:

	Per head.
Freight from Texas to Fallon, Mont., \$125 per car, 40 head per car	\$3.125
Hay, \$8 per car	.20
Shipper in charge, \$2 per car	.05
Average losses in transit, \$5 per car	.125
Total, Texas to Fallon	3.50
Cost Montana to Chicago, including freight, hay, shipper's expense, and yardage	5.90

Total, Texas to Chicago, via Fallon, Mont. 9.40

For transporting steers from northwestern Texas to feed lots west of the Missouri River and, after fattening, to London, England, via Chicago, the following estimates are made:

*Principal items in the average cost per head of moving steers from Texas to feed lots in Kansas, Colorado, and Oklahoma, and thence to London, England, June, 1908.<sup>1</sup> (Applying approximately in 1912.)*

Item of cost.	Low.	High.
<b>STOCK CATTLE.</b>		
Trailing, ranges to shipping points in Texas	\$0.05	\$0.25
Freight, Texas to feed lots in Kansas, etc., at \$26 to \$78 per 36-foot car	.87	2.60
Feed en route at 1 to 3 unloading points, at an assumed average of \$2 per car	.07	.20
Yardage at station near feed lot	.00	.25
Unloading at destination and driving to feed lot	.05	.05
Shippers in charge	.05	.07
Total, Texas range to feed lots in Kansas, etc.	1.09	3.42
<b>BEEF CATTLE.</b>		
Driving from feed lot and loading on car	.05	.05
Freight, feed lots in Kansas, etc., to Chicago, at 27 to 55 cents per 100 pounds	3.38	6.88
Feed en route at 2 or 3 unloading points; assumed average, \$2 per car	.20	.30
Shippers in charge; assumed average, \$2 per car	.20	.20
Switching charge, Chicago, at \$2 per car	.10	.10
Yardage and feed at Chicago	.50	.50
Total, feed lots in Kansas, etc., to Chicago	4.43	8.03
Freight, New York to Chicago, at 28 cents per 100 pounds	3.50	3.50
Feed en route at 1 unloading point	.25	.40
Feed at New York	.25	.50
Total, Chicago to New York	4.00	4.40
Ocean freight, New York to London	6.60	7.20
Hay, 14 days, including 3 or 4 days at London	2.50	4.50
Shippers in charge	.50	.60
Total, New York to London	9.60	12.30
Total of items specified, Texas range to London	19.12	28.15

<sup>1</sup> The estimates of cost from Texas to feed lots apply to stock cattle averaging 30 head per 36-foot car; and the estimates of cost from feed lots apply to the same cattle after they have attained an average weight of 1,250 pounds and average 20 head per car.

#### SHEEP.

From Texas and New Mexico to feeding grounds in Colorado and Kansas, thence to Chicago, the total cost of moving sheep, including trailing, freight, feeding, and shippers' wages, averages 50 cents to \$1.50 per head; and the additional cost to New York, from 35 to 45 cents per head.

## OCEAN TRANSPORTATION.

## LOSSES ON SHIPBOARD.

Since 1891 cattle shipping across the Atlantic from the United States and Canada has been attended with comparatively small loss. In 1892, out of 98,731 cattle shipped to Europe from Montreal, 646, or about seven-tenths of 1 per cent, were lost at sea, and in the following three years the percentages of loss grew less. The number lost in any one voyage was rarely more than three or four.

The rate of insurance in 1908 on cattle shipped from New York to England was quoted at one-fourth of 1 per cent, of which one-tenth of 1 per cent was on account of the risk due to the ship's chance of being lost, and three-twentieths of 1 per cent for the risk of the cattle dying in transit. On this basis it may be assumed that the average loss of cattle on the trans-Atlantic routes is less than 5 in every 2,000 shipped. Prior to the establishment of satisfactory steamship facilities and to the present Government inspection, insurance rates on cattle, according to a prominent New York exporter, varied from 2 to 10 per cent, thus indicating that the losses in those days were from 8 to 40 times as great as at present.

## FREIGHT COSTS FROM THE UNITED STATES.

Ocean freight rates in 1908 from the United States to England were quoted at \$6 to \$7.20 per head for cattle, and 72 cents (3 shillings) per head for sheep. Twenty years ago, according to an exporter, rates on cattle reached \$9.60. The actual rates paid are subject to private contracts, the terms of which are not usually made public. Other items of cost of ocean transportation are attendants' wages and feed for the stock. En route from New York to England the foreman of attendants is paid about \$50 or \$60 per trip, experienced hands from \$25 to \$30, and inexperienced men often no money wages, their passage being earned by work on shipboard. Sometimes, however, the exporter pays at the rate of \$3 per man to secure these men through shipping agents. The total cost of labor from New York to London or Liverpool is estimated at 50 or 60 cents per head for cattle and about 10 cents per head for sheep. Enough hay is provided to feed the stock throughout the 10 or 11 days on the ocean and for several days at the landing place in England.

## RATES FROM ARGENTINA.

Before the United Kingdom prohibited the importation of cattle from the River Plate freight rates from Argentina to England sometimes reached as high as \$28.50 per head and as low as \$16.80. During the few months in 1903 when the quarantine was suspended in England rates ranged from \$18.32 to \$22.58 per head.

Unfavorable conditions, sometimes involving serious loss, are reported to have existed on the long voyages from Argentina to England before this traffic was stopped. With improved accommodations, however, many of these difficulties might be overcome, but long voyages necessarily require more food and greater cost for attendance than the short ones from United States ports to London or Liverpool.

## ECONOMY IN TRANSPORTING MEAT RATHER THAN LIVE ANIMALS.

## RAIL.

It costs the carrier less to transport a given amount of meat than the live animals necessary to produce that meat. Seven carloads of live cattle yield on an average 5 minimum carloads, 20,000 pounds each, of fresh beef, or 2 carloads of 49,000 pounds each. Packing-house products other than fresh meat are carried in still larger loads, and the saving to the carrier as compared with live-stock transportation is correspondingly greater.

From Chicago to New York in 1908 the freight and other expenses of the road on an export steer of average weight (1,250 pounds) were \$4 to \$4.40, while the freight on the average amount of fresh beef yielded by the animal, 700 pounds, would amount to only \$3.15, not including the expense of icing. From Kansas City to New York the corresponding difference between live and dead freight is still greater, amounting possibly to \$2.25 or \$2.50 per head.

## OCEAN.

The total cost of shipping a live steer from Chicago to Liverpool, including freight, feed, and attendance, is estimated at \$13.60 to \$16.70, or considerably more than double the cost of shipping the average weight of fresh beef yielded by the animal.

Over the long voyage from Argentina to England the difference in cost between live cattle and dressed meat would be great. Compared with the freight rates on live cattle, quoted in 1903 when the last exports over this route were made, the cost of shipping fresh meat is small. A rate quoted by a leading steamship company carrying dressed beef from Argentina to England in 1908 was equivalent to \$7 for the average quantity yielded by an export steer, or about one-third of the freight and a still smaller fraction of the total transport cost for the live animal, which total included, besides freight, the risks of passing through the Torrid Zone and the expense of feed and attendance for a voyage of more than three weeks.

## THE PACIFIC COAST REGION.

## CATTLE AND SHEEP IN EARLY DAYS.

The cattle industry was a main support of California for at least a half century prior to 1848. Before the discovery of gold an occasional ship would enter San Francisco Bay and receive a consignment of hides. When once the crowds began to enter the State in the early fifties, however, there were not enough cattle for home consumption and supplies were brought from Texas and even Missouri. It is reported that 60,000 head were driven into California from the East in 1854. The drive from the Missouri River usually occupied several months. A quick trip, as recorded by the Sacramento Union, was made in 1854 by a party of 20 men who brought 400 head of cattle to California from Missouri. They left the Missouri State line on May 1 and reached Sacramento on August 22.

Sheep also were driven to California from regions east of the Sierra Nevada Mountains. Some were brought from New Mexico to southern California to stock the ranches and some came from Mexico. As early as 1852 it was reported by the San Joaquin Republican "that most sheep we have hitherto killed" came from Sonora, N. Mex. An item in the Placerville Herald in 1853 describes the route followed by a party of men who brought 1,800 sheep from New Mexico to ranches near Carson River. The party left Taos, N. Mex., January 29, 1853; on March 16 they reached Fort Laramie, on Platte River; thence they took the sheep over South Pass, encountering snow as they went through the mountains. At Green River the first green pasturage was found. The sheep were taken along Green River, thence along the Humboldt and to the Sink. For the last 150 miles on the way to the Sink the sheep lived on wild sage and other plants. Only 50 were lost on the entire trip.

#### SALES ON FARM OR RANGE.

The most usual method of buying live stock on the Pacific coast is direct from the stock grower. Frequently the buyer drives his animals from the farm or range to the shipping point, but at times the seller may make this delivery.

One of the principal meat packers in San Diego, Cal., in 1910 had representatives as far away as Arizona, where purchases were made directly from the stock raisers during about one-half of the year; during the rest of the time a supply came from regions within about 50 miles of San Diego, being driven in on foot. Colorado and Texas also contributed to his supply. For shipments from Phoenix to San Diego the stock are usually stopped twice for rest, water, and feed. If shipped over the Southern Pacific line the animals may be fed at Yuma, Ariz., and again at Colton, Cal.; if over the Santa Fe Railway they may be fed at Ashford, Ariz., or Needles, Cal.

A large number of the California cattle are fattened on grass, but some are finished on by-products of the beet-sugar factories. One feeding company is said to bring cattle from its ranch in Utah to be fattened in western California on beet pulp.

One of the important cattle regions of California is the San Joaquin Valley, which contributes to the beef supply of Los Angeles, San Francisco, Portland, Tacoma, Seattle, and other markets. In this valley not only native cattle but feeders, brought from a distance, are prepared for market. During the year ending October 31, 1909, according to the records of the county clerk, 25,000 beef cattle were shipped out of Kern County, which forms part of this valley.

Some of the California stock raisers and meat packers board their cattle on ranches, paying the ranchers to feed them. Cattle are often pastured in valleys in the winter, and, when the grass dries out in late spring, are driven to the mountain pastures, from which snow has but recently melted. In 1910 the movement to the mountains was taking place about the last of May. They may be taken from the mountains for slaughter, or, after another winter in the valleys, they may be returned to the mountains for more pasturage in the spring.



## STOCKYARDS.

Of the few public live-stock markets on the Pacific coast one is at San Francisco and another at Portland. The Portland market is at Union Stockyards, which were opened in September, 1909. They are located on a slough of the Columbia River near the mouth of the Willamette and a few miles from the business section of Portland. Stock is received and shipped by water as well as by rail. In June, 1910, the finished yards covered about 20 acres and accommodated about 200 carloads of animals. There was a considerable area adjoining the yards for which the stockyards company was said to have an option to purchase. The unloading platform was built of concrete and extended along the front of about 24 receiving pens.

A considerable number of sales and purchases are reported to be made here through commission men, although stock growers and packers may deal direct with each other. The market here begins about 8 a. m. and is over about 4 p. m.

In addition to serving as a market place the Portland stockyards are used as a feeding station for animals on the way from California to Washington.

Stock is often transferred from these yards to the city proper by barges towed by gasoline launches. A barge may hold two or three carloads of animals.

Beginning with the latter part of June, 1910, two live-stock trains were to be run to the Portland stockyards—one train from Huntington, Oreg., a distance of about 400 miles, the other from California. The train from Huntington was to leave that point Saturday and Tuesday of each week at 8 p. m., and was due to reach the stockyards at 2.30 p. m. on the following day.

## TRAILING.

The extension of railroads in the Pacific coast region is gradually reducing the length of the live-stock trails. Where railroad transportation is available it regularly takes the place of trailing.

The exact course followed in trailing stock depends to some extent on the pastures and watering places, and also on the location of cultivated and inclosed lands.

Among the railroad points to which animals are reported to be driven from the ranges of central and southern Oregon are: To the west, Ontario and Huntington; to the north, La Grande, Pendleton, Pilot Rock, Heppner, and Shaniko; to the southeast, Klamath Falls, all of which are in Oregon; and some trails leading to the southwest reach the railroad at Alturas, Cal. Stock brought to shipping points from central Oregon may be driven as far as 100 to 200 miles.

One route followed in bringing cattle from central Oregon to the packing house at Walla Walla was given as follows by a man who rode the trail: Starting from Seneca, in Grant County, the route led nearly due north, past the post offices of Beach Creek and Long Creek, to a crossing of the Middle Fork of the John Day River; then proceeding past Range to the North Fork of the John Day River at Dale, on the southern border of Umatilla County; thence past Ukiah, Pilot Rock, and Pendleton, to the Oregon State line. Thence the course was over the Blue Mountains to Walla Walla. The entire distance was about 200 miles.

Sheep are reported to be trailed sometimes from Arizona, southern Nevada, and Utah into the summer ranges of Idaho; and in the fall they are brought into central California, beginning to arrive in the Sacramento Valley about the last of September.

In Alaska cattle and sheep shipped from southern ports are often driven as far as 400 miles from the seacoast to an interior point before they are slaughtered.

#### LOADING CATTLE ON SHIPBOARD.

Some methods used in loading cattle on shipboard were illustrated by a consignment loaded at Seattle in June, 1910, and destined for Alaska. The vessel, a coasting steamer 182 feet long and 36 feet wide, had the upper part of the hold divided into pens, each large enough for 10 or 12 cattle. The animals were brought in railroad cars to the pier, and a temporary runway was made from the car door across the pier and down through the forward hatchway of the steamer; the sides of the runway were high enough to keep the animals from looking over it and becoming frightened at any unusual sight. There were eight carloads, each consisting of about 20 cattle, and usually it required about five minutes to transfer one carload from the train to the pens in the steamer.

#### HOGS.

Few hogs are sold for feeding purposes only, but hogs are usually fed out on the farms where they are raised, the danger from cholera making it risky to bring in feeder stock from a central market. After the hogs are fattened they are sold to the market in the usual way.

In the case of all three of the above classes of animals the actual feeder may not be the man who consigns the animals to the commission house, but they may be turned over to a local buyer, who figures on a small profit—not more than 1 cent a pound—and consigns them to the market. In some cases the representatives of packing houses buy direct from the producer. This method is common on the Pacific coast and in the South, east of the Mississippi River, particularly in the Gulf States.

In some sections of the Central West pork packers have even gone to the length of distributing boars of certain breeding free to farmers in order to get a better quality of pork. The principal markets for cattle, hogs, and sheep include Chicago, Kansas City, South Omaha, East St. Louis (National Stock Yards, Illinois), and St. Paul in the West; Buffalo and Pittsburgh in the East.

#### DRIVING TO MARKET.

Large numbers of hogs also were driven to market before the railroads were built. In 1827 the keeper of a turnpike gate near the Cumberland River certified that 105,517 hogs had during that year been driven through the gate on the way to South Atlantic States.

## HAULING HOGS IN WAGONS.

Throughout the States where hogs are raised in largest numbers they are usually hauled to shipping points in wagons. In 1906 an estimate of the cost of hauling live hogs to market was made by this department, based upon data furnished by county correspondents of the Bureau of Statistics. Three hundred and sixteen counties, 291 of which were in the North Central and 25 in the South Central States, reported that the average distance hogs were hauled from farm to shipping point was 7.9 miles and the average time seven-tenths of a day. The average weight of a load was 1,941 pounds, and the average cost was \$2 per load, or 10 cents per 100 pounds.

## TOTAL TRANSPORT COSTS.

The cost of moving live hogs weighing about 200 pounds each from farms in Illinois, Indiana, Wisconsin, Missouri, Iowa, Minnesota, and South Dakota to Chicago includes the following items: Hauling in wagons from farm to shipping point, 20 cents per head; freight, from 20 to 70 cents; shippers' wages, feed, yardage, and similar items, 30 to 60 cents; making a total of 70 cents to \$1.50 per head.

## CONCLUSIONS FOR MEAT ANIMALS.

The growth of economy in the transportation of meat animals has taken place along at least three general lines. One is the saving to the railroads and steamships handling the traffic, which phase of improvement is reflected in lower freight rates. The size and efficiency of cars and vessels have been increased and cheaper methods have been devised for handling traffic in stock yards. A second phase is the reduction of loss in transit, a saving which may be credited to mechanical improvements, to legal regulations, and to the change over a large number of routes whereby the freight charge depends upon the weight of the live stock shipped and not upon the number of cars used. The third direction of this growth of saving is found in the tendency to transport meat instead of live animals. This movement is illustrated by the establishment of new slaughtering centers nearer the sources of supply than are the older meat-packing cities east of the Missouri River.

## HORSES.

The high prices of horses and the advance of the automobile industry have demoralized conditions on the horse market to a considerable extent. Ten years ago a tremendous number of horses passed through the Chicago market every week, but the market was very well organized and lively business was done on every market day. Although the number now handled is not so great as formerly, a similar system prevails to the one used 10 years ago. Horses are purchased from farmers by traveling local buyers, who consign them in carload lots to the market, where they are sold by auction. These auction sales are remarkable, some auctioneers being capable of selling 60 horses in an hour. The horses sold in this way are usually

consigned to a commission firm, which handles the business on the market. There are also firms on each large horse market which keep buyers in the country purchasing from farmers.

There is also considerable trade in thin draft horses for feeding purposes, and some farmers make a profitable business of buying up these thin horses and fattening them, a fat horse always outselling a thin horse of the same quality.

The leading horse markets of the United States are Chicago, Kansas City, South Omaha, and St. Louis in the West, and Buffalo, New York, and Boston in the East. Atlanta, Columbia, and Memphis are prominent southern markets.

#### MULES.

The leading mule markets are Kansas City, St. Paul, and Memphis. Mules are consigned by the owners to commission houses on the market for sale to buyers.

#### MAPLE SIRUP AND MAPLE SUGAR.

The maple industry is conducted, as is well known, in most of the Northeastern States. It is conducted wholly on a rather small scale. The manufacture of the product is in 99 cases done by the farmer himself. The sap from the maple tree is collected in the early spring and boiled, generally in the woods, to a sirup or sugar. A greater portion of the sirup is placed in barrels and sold by the farmer to an agent of a canning concern. Here it is mixed, bottled, and sold to the wholesale trade, from there to the retailer, and finally to the consumer. However, large portions of these products are canned directly by the farmer and are offered for sale by him in his original cans. There are, however, in Vermont, and also in Ohio, associations of farmers who collect the sirup, grade it, bottle it, and sell directly to the wholesale or retail trade, as it may be. Maple sugar is sold in practically the same way as maple sirup.

#### MILK AND CREAM.

##### CONSIGNMENTS ON COMMISSION.

Cases where milk is sold on commission are relatively rare. The following quotation from Bureau of Animal Industry Bulletin 138 gives an instance of the kind:

A peculiarity of the Chicago milk business is the existence of a firm of milk brokers. This concern will undertake to find a customer for a producer who wishes to begin selling milk and will find a producer seller for any middleman who wants to go into the business. In addition to acting in this way as a go-between for producer and dealer, the brokers investigate credits and guarantee to shippers payment for their milk for a commission of 2 cents a can. This is at times important, for out of such a large number of dealers some will be dishonest and some, though honest, will be weak financially; hence there is an advantage in having some one investigate the financial standing of dealers and guarantee accounts. Years ago the producers suffered heavy losses through the constant stream of dealers who failed to pay their bills. It is stated that never before in the history of the business has so little money been lost by the farmers by reason of bad credits as at the present time.

### DIRECT SALES TO CONSUMERS.

In most of the large cities of the country milk and cream are handled by middlemen, and practically the only place where we find the producer dealing directly with the ultimate consumer is in the smaller cities and towns, where the dairy farms are within driving distance. In the South, even in the larger cities, the custom prevails much more widely of the producer retailing his own product. For instance, about 80 per cent of the milk sold in Memphis, Tenn., is retailed by the producers. In Jacksonville, Fla., there are no middlemen. In Birmingham, Ala., most of the milk is produced within 10 miles of the city, and there are only three middlemen. The growth of large cities has gradually pushed the farms farther and farther back, so that shipment by rail is gradually taking the place of wagon delivery. This does away with the possibility of the producer driving to town, and makes it necessary for him to maintain a plant in the city if he is to deal directly with the consumer. Usually it is not economical for one dairyman to maintain such a plant, so the system of middlemen has been developed.

Cream for butter making and milk for cheese making are usually sold directly to the factory, the farmers driving there themselves. Sometimes several farmers in one locality cooperate and take turns hauling the milk supply of the locality to the factory.

### COOPERATIVE SELLING ASSOCIATIONS.

So far cooperative selling associations for milk and cream have not been developed to any great extent in this country. At the present time there are only a few such cooperative plants in operation. Some of them are on a very unstable basis. One association is operating in Omaha, Nebr., and in the spring of 1911 was handling 430 gallons of milk a day. At that time their returns to the farmer were below the prices paid by competing milk companies. Johnstown, Pa., has a cooperative milk distributing station which pays the farmers 20 cents a gallon for milk during the winter and 15 cents a gallon during the summer, while the milk retails to the consumer at 8 cents a quart. The stock of this company is owned entirely by milk producers who employ a manager and all other persons who work for the company. In England there are several cooperative milk plants which are reported as being quite successful. The difficulties so far met with in farmers' cooperative milk plants have been that they were usually so small that they could not operate as economically as larger plants. Then, too, the members have become dissatisfied easily, having anticipated larger profits than they realized. The profits of a large milk company may seem stupendous in the aggregate, but when figured down to the profit per gallon may not show up so well. If a farmers' cooperative milk company is to be successfully run, it should be large enough so that the economical handling of the product is assured, and a very binding agreement should be placed upon all patrons which will prevent their withdrawing when other companies offer a little more for their product than they can secure in their own plant.

### USUAL METHOD OF SELLING MILK TO DEALERS.

The bulk of market milk sold in large cities is handled by city dealers or middlemen. It is usually the custom for these dealers to have 6 or 12 month contracts with the dairymen who produce milk for them. In these contracts the dairymen agree to milk a certain number of cows throughout a period or else to supply not less than a certain quantity of milk daily. The larger milk companies usually make a price ahead covering the period of time governed by the contract. These prices may vary in the same territory, so that three or four concerns may have varying sets of prices in the same locality.

Two general systems for the collection of milk are in vogue. In the first system the city dealer maintains country receiving stations to which the farmers drive and deliver their product. Some of the large dealers maintain from 30 to 40 of these country stations. At these stations milk is received from the farmers, weighed or measured, tested, cooled, and then either bottled or placed in cans for shipment to the central plant in the city. In the country stations around Chicago considerable of the milk is bottled. The chief objection to bottling milk in the country, however, is that the transportation charges on bottled milk will be considerably higher than on the same quantity of milk shipped in cans. Usually the city dealers notify their country stations by wire as to the amount of milk required each day, and the surplus is made either into cream, butter, or cheese at the country stations. Some of the larger dealers maintain condenseries in the country, condensing their surplus milk. When the milk is separated and the cream removed the by-products usually made at the country station are cottage cheese and casein.

The other method is for the dairymen to ship their milk directly to the city, carrying it to the railroad station once a day, where it is placed on the train and transported directly to the central plant without further handling in the country. In some cities there is a certain amount of "platform milk," which is milk shipped to the city and sold on the station platform to small dealers.

### GRADES AND WEIGHTS.

Milk is usually bought by weight; that is, a certain price is paid per 100 pounds, though in some cases milk is still sold by the farmer according to measure, a rather less accurate method of doing business than selling by weight. In the latter case milk may be either sold by the gallon or by the standard can, which may hold a specified number of gallons. Where various grades are paid for the price is usually based on the percentage of fat in the milk. For instance, the price quoted per 100 pounds may be for  $3\frac{1}{2}$  per cent milk; for all milk testing higher a premium may be paid, and for milk falling below this standard a reduction in price takes place. A few retailers pay a little more for milk which comes up to certain sanitary requirements. For instance, they may pay the dairymen 1 or 2 cents per gallon more for milk from cows which have successfully passed the tuberculin test. One or two dealers have experimented in paying premiums for low bacterial counts or good sanitary conditions of the farms.

Cream is usually sold for the manufacture of butter on the basis of butterfat which it contains. The creamery offers the farmer so much per pound for the butterfat which his cream contains. When the cream is delivered at the factory it is weighed and a sample is taken from which to determine the fat. At the end of a month the total number of pounds of butterfat in the cream delivered by each producer is determined and payment is made for that amount.

The cooperative creameries usually weigh and test cream delivered by each patron, crediting each one with the pounds of butterfat delivered. At the end of the month each patron is charged with the cost of manufacturing his cream into butter and credited with the sales of his proportionate amount of butter.

Milk for cheese making is sold to the factory either by weight alone or on a basis of the per cent of fat in the milk. Some factories pay a straight price per 100 pounds, regardless of the per cent of fat, provided it is not adulterated. Other factories pay a slight premium for milk containing over the standard fat per cent set by the factory.

Condenseries usually buy milk by weight and on the fat basis. A certain standard, say 3.6 per cent of fat, is set; a premium is paid for milk testing over that amount, and a proportionate reduction made for all milk falling under the set standard.

Many systems of payment are in vogue in various places; creameries have been known to send a check to each shipper every day in payment for the cream which has been sent in. It is usually the custom, however, to pay once or twice a month. Most of the large milk companies pay once a month, and the payment is usually made about the middle of the month for the month previous.

#### SEASON OF HEAVIEST SALES.

Probably the largest amount of milk is produced in the late spring and early summer. This is called the "flush." Such a system has come into practice because of the fact that most dairymen preferred to market the bulk of their milk when the cows were out on pasture, this being the season of cheapest feed. As a result of this practice winter milk has been harder to buy, and consequently prices for it have advanced. This is leading to a change in the old method and gradually more and more winter milk is being produced.

#### STEPS IN MARKETING.

##### SUCCESSIVE SALES FROM FARMER TO RETAILER.

In marketing the milk the direct method, of course, is for the farmer to peddle his own milk to the city consumer. A more complex system is shown in some of the larger cities, where the farmer first sells to the city dealer at so much per 100 pounds. The dealer may either bottle the milk and sell it direct to the consumer, or he may sell it a can or two at a time to the small storekeeper, charging so much per gallon. In turn the small storekeeper sells the milk to those customers who come to the store, at so much per quart. For instance, a dealer may be paying the farmers \$1.50 per 100 pounds, which would be approximately 3.23 cents per quart. The dealer would ship the

milk to his city plant, where he would sell a 40-quart can of it to the storekeeper for, say, \$2.40, or 6 cents a quart. The storekeeper would keep this can in his store and dip it out quart by quart for customers, charging them, say, 7 cents a quart.

*Beginning and end of season of principal sales.*

Cream to creameries.....	May 1 to Aug. 1.
Milk to cheese factories.....	May 1 to Aug. 1.
Milk to condenseries.....	May 1 to Aug. 1 (estimated).
Sweet cream to ice-cream makers.....	June 1 to Sept. 1.
Milk to city retailers.....	Practically uniform.

*Items of expense in marketing.*

1. Cartage from farm to railroad or receiving station.
2. Operation of country receiving stations.
3. Transportation on railroads.
4. Cartage from railroad station to city plant.
5. Handling in city plant.
6. Delivery to consumers.

## STORAGE AND TRANSPORTATION.

### STORAGE BY PRODUCER.

On account of the perishable nature of milk and cream and the limited refrigeration facilities on the farm there is practically no storage by the producer, except in the case of milk from the night's milking, which is usually held overnight and delivered to the railroad the next morning along with the morning's milk. This holds good only in the North, where cold water or an ice supply makes such a process possible. In the South it is customary to deliver twice a day.

### STORAGE BY MIDDLEMEN.

Very little milk is stored by the middlemen for any considerable length of time. Often milk is delivered to the city plant during the night, and it is bottled the next day, being delivered the second morning. This would require the milk to be held in the city plant for about 36 hours, during which time it is usually kept at a temperature between 33° and 38° F. Cream is sometimes held at the country receiving station and in the city plants for a week or more by packing the cans in ice. This takes place not as a matter of routine procedure, but only in cases of oversupply of milk, which must be separated.

### DISTANCES.

The average zone from which cities draw their milk supplies is about 25 miles. The range is from within 1 to 2 miles of the city to as high as 400 miles.

## NURSERY STOCK.

The marketing of nursery stock differs from the marketing of fruits, grain, live stock, and general farm products in that it is not so generally handled by commission merchants or jobbers. Some



nurserymen specialize on few varieties and grow these in large quantities to sell to other nurserymen or to firms which are distributors only and not growers. This interselling between nurserymen is very common, and if the original labels do not bear the firm name there is no sure way of tracing a tree back to the grower in case it is not true to the variety name.

Practically all nursery stock is sold either by catalogue direct from the nurseryman or by agents working independently on salary or on a certain percentage of sales. Sales are made throughout the entire year for delivery in spring or fall, as preferred by the buyer. Buyers should not be too eager to receive nursery stock early in the fall, because in such instances the nurseryman strips the unripened leaves from the trees and digs them before they ripen up their wood properly. Such trees are not in condition for safe transplanting and will not endure the winter without injury.

One of the worst evils of the nursery business and one from which innocent buyers suffer most is the practice of some independent but dishonest tree agents in buying large lots of one variety and filling orders of many different varieties from this one lot. There are a few shyster firms who charge excessive prices and make extravagant and unreasonable claims for their trees, but these frauds are soon exposed by the agricultural press.

Trees for fall delivery should be dug as soon as they enter the dormant stage, which is indicated by the natural dropping of the leaves. The trees of each individual order are labeled and are packed together either in bundles or boxes, with plenty of dampened packing material, like moss, straw, etc., to prevent their drying out. They are then shipped by freight or express direct to the buyer for immediate planting, or to be "heeled in" for planting later.

The trees for late winter and spring delivery are dug in the fall, and are either stored in packing sheds, cold-storage warehouses, or are "heeled in" out of doors. In either case the roots must be kept moist, and this is done by damp moss or other vegetable material in the sheds and warehouses and by the earth with which they are covered out of doors.

Trees for the southern trade are shipped during the winter whenever there is no danger of their being injured by freezing during transportation. Where agents make many sales in one neighborhood, the trees are shipped in car lots and are distributed from the car to the purchasers. Usually the freight and packing charges are added to the cost of the trees, but a few nurserymen assume this expense.

It is by far best for anyone desiring to purchase nursery stock to deal directly with the nursery firm, who can be held responsible for good, clean trees, true to name and of the grade ordered.

## NURSERY STOCK, ORNAMENTAL.

### SALES MADE BY PRODUCERS.

Home-grown, ornamental nursery stock, owing to its perishable nature, is rarely consigned to commission dealers. Such stock is generally sold direct to the planter. The terms are usually from 10 per cent to 15 per cent of the gross sales. The method is to pack and con-

sign to the commission man, freight or express prepaid or collect, and wait for returns, which, if made, are always after goods are sold.

Nursery stock is seldom sold to local buyers for delivery to local shipping point.

Surplus home-grown nursery stock is frequently sold at auction, but this method of disposal is rarely resorted to for first-class material.

Considerable nursery stock is contracted for in the field for delivery the following fall or spring. Such contracts are generally made by the large retail dealers and with the wholesale growers only. Definite orders are generally placed with the grower for delivery at a specified time and at a price agreed upon, bills being due 30 to 60 days after shipment of the stock.

The great bulk of all ornamental nursery stock is sold direct to the consumer or planter by the means of catalogue or magazine advertising, or by a traveling agent who goes about the country during the summer and early fall months booking orders for nursery stock to be shipped at the proper time for planting. Nearly all sales booked by these agents are at a higher cost than if the stock is purchased direct from the nursery, as their traveling expenses and commission must be added to the original cost of the plants.

Nurserymen make their own collections, except bad bills. The National Nurserymen's Association employs a lawyer, who aids in the collection of accounts that are overdue for the members of the association.

Ornamental nursery stock is sold by the age and height of plants in feet or inches, measured from the ground to the height of the plant, or in the case of deciduous trees by the caliper measurement of the trunk.

The season generally begins with October and ends with April.

#### STEPS IN MARKETING AFTER PRODUCT HAS LEFT PRODUCER'S HANDS.

As stated above, most of the ornamental nursery stock is sold direct to the planter. Some, however, is sold to the retail florists at wholesale rates, they caring for the same temporarily until sold at an advance of from 35 to 100 per cent on the dollar. There is rarely a middleman in the handling of nursery stock. When such is the case, however, he makes his purchases in wholesale quantities and cares for the plants until sold. His sales are always at a considerable advance over what he paid for the stock. The middleman, in such cases, is generally the retail florist or landscape gardener. Stock is sold and bills rendered payable in from 30 to 60 days.

There are a few large nursery firms who buy great quantities of nursery stock in small sizes for the purpose of growing it to marketable sizes. Orders for such stock, however, are generally placed with European nurserymen, who, owing to cheap labor, are enabled to undersell American wholesale growers. Such firms purchase their stock abroad and grow it for several years in their own nursery before it is ready to be sold at retail. Such stock as they import can be had for about one-third what similar stock would cost in America. To the cost of such imported stock should be added the packing, freight,

customs charges, and customs brokers' charges, which generally add from one-half to three-fourths to the original cost of the goods. It generally has to be planted out in the nursery and grown for from one to four years before it will be of sufficient size to retail. Much of this stock, however, is of marketable size when imported. Orders for this stock are placed during the previous year to be shipped during the shipping season, which is accepted to mean fall and spring. Those orders are filled and the bills become due generally in three months after delivery of the goods.

#### **AUCTION MARKETS AT LARGE CITIES.**

There are a number of firms in New York who carry on plant auctions regularly, selling foreign-grown nursery stock, having one or two sales each week. Those conducting such sales place large orders with foreign nurserymen to ship them stock each week during the season, which stock is sold at auction twice a week.

#### **PUBLIC MARKET PLACES FOR PRIVATE SALES.**

While there is some ornamental nursery stock sold at the public markets it is in such small quantities that it is hardly worth considering. This stock is rather bulky and of such character that it deteriorates if kept out of the soil for any considerable length of time; besides, the demand for it in such places is extremely limited; hence this method of disposing of such stock is not looked upon with favor.

#### **ITEMS OF EXPENSE IN MARKETING.**

Expenses of marketing include: (1) The stock must be lifted from the field, carried to the packing shed, inspected, and, if necessary, sprayed or fumigated to rid the plants of all insect pests. The plants are then put up into bundles or boxes, the roots carefully covered with damp straw or excelsior, and the whole covered to prevent drying out by wind, sun, etc. (2) The preparation for shipment, including material, labor in handling, clerical labor, etc., adds about one-fourth to one-half to the cost of the plants, according to the size of the same. (3) To this packing cost must be added the transport or shipping charges, which are generally paid by the consignee.

#### **STORAGE AND TRANSFER.**

Ornamental evergreen nursery stock is generally lifted from the field where grown and shipped direct to the purchaser. In nearly all large nurseries, however, they have storage sheds, where stock, after being lifted from the field, can be planted close together and carried for several months. If not disposed of during that time, it can be put back into the fields again. Deciduous ornamental stock is usually lifted in the fall and heeled in close together in sheds or heeling grounds.

Stock is very rarely stored by the middleman or retailer, but is ordered from the grower as orders are received for the stock, which is immediately reshipped or delivered to the planter.

### SUMMARY.

Ornamental nursery stock, after being lifted, is more or less perishable. Owing to this and its bulky character it can not be carried like ordinary marketable products, in the ordinary way or in cold storage. Stock that is lifted must be properly cared for, and if not sold must be replanted. This entails a considerable additional expense, frequently a severe check in the growth of the stock transplanted, and often a considerable loss on account of its dying. This all tends to show that, whenever practicable, the proper way to handle such stock is to lift the plants as orders are received. In this way it can be marketed at a fair profit.

Difficulties actually encountered are chiefly transportation, delays, etc., that apply to all commercial shipments, which are intensified in the shipment of nursery stock, owing to its liability to injury from frost in winter and from excessive drying of their roots.

Another hardship the nurseryman has to contend with is the tax or license fees he has to pay to be permitted to do business in the various States, owing to State laws in regard to the protection against the introduction of dangerous insect pests and diseases of nursery stock. Such fees range from \$5 to \$20 for many of the States.

The essential elements of success actually employed are:

First, to start with good soil and where climatic conditions for the rapid growth of such plants as are grown can be found.

Second, good healthy stock, free and kept so, from all insects and plant diseases.

Third, a knowledge of successful propagation and cultivation methods; being able to purchase the young stock that can not be grown as cheaply in our own country on advantageous terms from the foreign grower. It might be said that probably 65 per cent of all ornamental nursery stock sold is imported from foreign countries as small plants, and grown into marketable sizes here.

### PEANUTS.

During the last two years the market for peanuts has been injured by misleading reports of acreage and yields, especially in the newer peanut-growing regions. These reports have had a very detrimental effect. The price received for farmers' stock was lower than the supply justified and the industry was injured thereby. The low price the past year was claimed to be due to the reports of large acreages in the newer regions, the dealers claiming that the supply was greater than the demand.

This claim was later found to be erroneous.

The peanut crop is handled largely by local dealers who are agents for or who sell to the few warehousemen and factory men. A decided improvement might be made in the handling of this crop by separating the warehouses and factories. There is no reason why the cleaning and grading should not be done by local cooperative associations and the peanuts sold on grade rather than in the rough to a few handlers who now control the whole trade. At the present time the cleaning, shelling, and marketing of peanuts is controlled by a very few men in the older peanut-growing regions.

The prices received by the farmers in the southwest are 15 to 20 per cent less than in the older regions. This is due to the cost of transportation from the farmer to the cleaners. By establishing cooperative cleaning and shelling plants in the regions where the nuts are grown this extra cost of transportation would be eliminated. The cost of marketing the factory cleaned and shelled nuts would not be much, if any, greater from the southwest than from Virginia. With the extension of the peanut industry in the newer regions and with the establishment of cleaning factories these conditions would be changed to the benefit of the farmer.

### PECANS.

The following account of the present method of marketing pecan nuts and of improvements suggested by the National Nut Growers' Association, Waycross, Ga., is contributed by Dr. J. F. Wilson, secretary:

Pecan nuts, as a commercial crop, are at present limited largely to the handling of the native product in the Southwest. The nuts are gathered without the cost of orchard care and marketed locally to merchants and jobbers, by whom they are disposed of to cracking establishments and to the jobbing trade. After being handled by the wholesaler, and finally by the retailer, the consumer pays several times the initial price.

The improved or "paper-shell" varieties, as they are commonly called, which have in recent years been planted in Mississippi, Alabama, Georgia, and Florida, as well as in Louisiana, where they were first exploited, have been absorbed entirely by local and special markets at highly remunerative prices. Within a few years the production of these superior nuts will be vastly increased when the thousands of acres of young trees come into bearing.

This association, anticipating the changing conditions, has formed a standing committee on "markets and marketing," and for the past two years this committee has been considering future needs and studying the problems which will arise when the superior cultivated crop comes into the general markets in competition with the present native supply. One of the preliminary steps this committee recommends is the adoption of a standard for grading the nuts by variety, so that the producer may offer a specific grade and quality with a view to obtaining the full market value for all portions of his crop.

Some uncertainty exists as to the eventual methods of placing the crop on general markets. The bulk shipping of graded nuts may be superseded, at least in part, by the establishment of local cracking plants where the nuts will be cracked and the kernels properly put up for trade supplies. Doubtless both methods will be utilized.

There is a disposition on the part of this association to favor methods which will result in bringing the grower and consumer in closer trade relations.

### POP CORN.

The pop-corn crop is by no means an insignificant one. According to figures that were available from census records, it is estimated that during the year 1909 about 10,000 acres were grown, and both the production and consumption have been increasing from year to year.

Investigations regarding the marketing of pop corn have just been begun, and not enough information has yet been collected to admit of making a classified or detailed report regarding systems or methods of marketing this crop.

Enough has been learned, however, to warrant the statement that there is urgent need of a thorough investigation of the methods that

are being employed by contractors, elevator men, commission merchants, and jobbers in handling the pop-corn crop.

When the farmer gets only  $1\frac{1}{4}$  cents per pound for pop corn that costs the manufacturer and consumer  $5\frac{1}{2}$  cents per pound, as has been the case during the present year, it seems that provision should be made for thoroughly investigating the causes or conditions that make it possible for middlemen to get four times as much for an article as the producer gets.

The middlemen fully realize the large profits that can be made by speculating in pop corn, and for this reason have shown an indisposition to furnish such information as would make it possible to trace the pop-corn crop from the farm through the various channels of trade to the consumer. They are particularly opposed to this because of the fact that pop corn will retain its popping quality for a number of years, and can thus be held for several years, if necessary, to await better market prices.

### IRISH POTATOES.

Irish potatoes must be considered both as a truck crop and as a farm crop. Throughout the South, where Irish potatoes are grown as a truck crop, they are handled the same as other truck crops—gathered, packed, and shipped on consignment as soon as they are large enough, regardless of their stage of maturity. With the exception of a small percentage of the crop in Florida and a small percentage on the eastern shore of Virginia, the method of selling by consignment prevails. There is at the present time in Florida a cooperative selling organization which handles a portion of the crop, and on the eastern shore of Virginia there is a cooperative organization which has been in successful operation for 11 or 12 years which handles over 90 per cent of the product grown in that territory. The distribution through cooperative agencies is better, the product going direct to the consuming centers rather than to the large distributing points, as do most consignments. Over 90 per cent of the product handled by the Virginia association has been sold f. o. b. shipping point. This alone has saved to the patrons in the neighborhood of \$150,000 annually.

The farm crop, grown so extensively throughout the Northern States and harvested in the autumn, is mostly sold to local buyers and shippers. A small portion of the crop is stored on the farm, a small portion is also stored at the shipping point by the buyers, but a very large part of the crop is offered for sale direct from the field. With the exception of the State of Maine, little cooperative distribution and sale is yet practiced. The State of Maine, however, is very completely organized, but the work has largely been done during the last year, so that results are not available. One of the limiting factors in the distribution of the potato crop, which is often a hindrance to the producer as well as to the consumer, is the high rate of transportation. Practically all transportation rates are based on distance and tonnage, regardless of the time factor. It is believed that with a product like the potato, which can be shipped long distances, the basis of freight tariffs might be changed from a ton-mile basis to a basis similar to that used in some European countries, where the time

factor is taken into consideration. It is believed that a rate on such a basis would be a decided advantage in equalizing the distribution of the potato crop.

### POULTRY, LIVE AND DRESSED.

The bulk of the poultry in this country is produced in the Middle West and shipped, either alive or dressed, to the large eastern markets. The poultry shipped alive is generally sold for immediate consumption, while the bulk of the dressed poultry goes into cold storage and is thawed out and consumed after the local supply of chickens is exhausted. Whenever there is a surplus of dressed poultry on the market it goes into the freezer and is sold by jobbers to retail markets, and by the latter to the consumer when the local market supply is short.

Poultry produced on the farms of the Middle West and parts of the South is sold by the farmer to the local country produce buyers or hucksters, who in turn sell it to the car-lot egg and poultry shippers. Live poultry shipped locally is usually sent by express in crates holding about 24 hens or the same weight of chickens, while in some sections considerable poultry is shipped in crates in freight cars. Some of the car-lot shippers send all of their poultry alive to the large eastern markets in live-poultry cars, which have a capacity of from 2,500 to 4,200 fowls, 2,000 to 2,400 geese, and 1,200 to 1,500 turkeys. Provisions are made on these cars whereby the poultry is cared for and fed to prevent a heavy shrinkage in transit. Many car-lot shippers, however, ship all the poultry received from January to July alive, while fattening and killing the chickens received after that month, dressing without fattening most of the fowls. The fattening season opens earliest in the Southern States. Crate fattening is the method commonly used by these men, records of which show that the feed cost of fattening chickens is about 7 cents per pound of gain, while the labor cost increases this to 9 cents per pound. It costs about 3 cents to kill and pick chickens in the western fattening stations. The average shrinkage in dressing, without drawing, is, for hens, 14.4 per cent; for roasters, 14.7 per cent; and 14.3 per cent for broilers.

The common method of killing and picking poultry in this country is to stick the birds in the mouth or neck, after which they are dry picked or scalded. The best grades of poultry are dry picked in the Middle West, while the poorer grades are scalded. Scalding is the common method of picking chickens in the South, as scalded poultry is preferred in the city markets as far north as Baltimore. Chicago and New York use large quantities both of scalded and dry-picked chickens, while the Boston market demands dry-picked poultry. Dry picking produces a much better dressed fowl, especially if it is to go into cold storage, and this method of picking is gradually gaining in favor throughout the country.

The best grades of specially fattened chickens are wrapped in parchment paper, packed and shipped in boxes holding 1 dozen to the package, while the heads of most of the better grades of poultry are wrapped in paper and the birds packed 1 dozen to the box without wrapping the individual fowls. The poorer grades of poultry, such as light hens, old cocks, and most scalded poultry, are packed in barrels or kegs. A few specially fancy lots of poultry are

packed in cartons holding one or two birds each. Most poultry is sold for consumption or put into storage undrawn, in which condition poultry undoubtedly keeps much better than if drawn.

Much of the poultry raised in the Northeastern States is sold dressed direct to the consumer, while the rest is shipped by express to commission men, either alive or dressed. Dressed poultry will not keep well in hot weather unless it is iced, so that most of the poultry which goes to commission men is shipped alive in the summer months, while poultry which is shipped to the retailer or consumer is iced. During cool and cold weather a large proportion of all poultry shipped to market is dressed. Poor methods of preparing dressed poultry for market and lack of uniformity in the packages tend to lower the price paid by commission men for dressed poultry in these Northern States. The shipper usually pays the carrying charges on his poultry, while the commission men deduct 5 per cent of the gross sale for handling the product. Some express companies will return the empty shipping crates for 10 cents apiece, but if a producer ships much poultry he usually has the crates returned in quantity by freight.

The demand for different grades of poultry on the large eastern markets varies according to the season of the year. The Jewish population buy a large amount of live poultry, especially during their holidays, which makes a good demand for live poultry at high prices during September and from March 15 to June 1. Squab broilers, weighing from 14 to 16 ounces apiece, are in demand from January to April; broilers, weighing 1½ pounds, sell best during April and May, while the market calls for 2-pound broilers during June, July, and August. Capons are in demand from Easter to Thanksgiving; turkeys on Thanksgiving, Christmas, and Washington's Birthday; geese from July to Christmas; and guinea fowl from September to March. The average farmer who produces a few chickens each year holds them until Thanksgiving or Christmas, by which time many of the roasters are hard fleshed or staggy, while the enormous receipts at this time tend to depress the price. A unique trade in soft roasters has been built up in the southeastern part of Massachusetts, where one man handles the bulk of the product, which he buys from the small producers. This product brings a high price, as it reaches the producer graded and well packed, while the quality is always uniform. It takes considerable work, however, to build up a good demand at profitable prices for specially prepared poultry in this country.

### RICE, ROUGH.

It has been the general practice in Louisiana, Texas, and Arkansas to sell rough rice to buyers representing mills or to consign it to commission merchants. This is especially true to-day of those producers who are not members of a cooperative selling association. In selling on commission the producer ships his rice in sacks to his commission merchant who, if he is a member of a board of trade, places samples of it there for the inspection of buyers representing mills or other interests. Only sealed bids are submitted. These bids are opened at the time agreed upon, and the rice is awarded to the highest bidder. The commission merchant reserves the right to



refuse any and all bids if the prices offered are not satisfactory to him.

The rice is then weighed at the expense of the producer by public weighers licensed by the board of trade. When the rice is received at the mill or warehouse of the buyer a representative of the commission merchant and of the buyer samples each sack of rice as it comes from the dray. If the rice grades according to the original sample the commission merchant renders his bill. If the rice does not equal in grade the sample upon which it was purchased, or should the graders disagree, the sacks under dispute are set aside and from them samples are taken, upon which a proper price is fixed by the buyer and commission merchant for the off grades.

The producers of rice who are members of a cooperative selling association sell their crop through this agency, which charges a fixed commission per bushel for selling each member's product. A representative of the association samples each member's rice. On the day advertised for a sale these samples, after being graded by an official grader, are placed on display in the sale rooms of the association, where they are examined by buyers who submit sealed bids. These bids are opened at the close of the sale in the presence of four men, the sellers being represented by two, the mills by one, and the association by one. The prices offered must be above the price fixed by the association for each of its grades or there is no sale. At the warehouse of the buyer the rice is again sampled by a representative of the buyer and of the association. The rice must grade according to the samples upon which the bids were made. The price on all sacks containing off grades of rice must be adjusted to the satisfaction of the association. These sales are made under competitive bids and reflect rather accurately the actual condition of the market. They undoubtedly aid in protecting the producer against loss that would occur if he sold independently without regard to the needs of the trade.

In the grading of rice there is no uniform system. The farmer draws samples from his rice and offers them as representing what he has for sale. The rice is sold on the samples. The rice is graded by the buyer, who rejects all that falls below the samples. The producer seldom gets the benefit of the rice that grades above the sample.

For rice there is no standard unit of weight or volume. The rice is brought to the warehouse in sacks that weigh from 180 to 200 pounds, but on the Gulf coast it is sold by the "barrel" of 162 pounds. The buyer determines the relative weight of the rice by ascertaining the number of pounds a bushel contains. By such a method the producer in a single sale of rough rice calculates his rice by the sack, the bushel, and the cup weight per bushel.

For statistical purposes the United States Department of Agriculture uses the bushel unit of measure, which is the unit used in Arkansas and in the South Atlantic States, but in the use of this unit there is confusion. The Department of Agriculture estimates a bushel of rice on the weight of 45 pounds, while the Southern Rice Growers' Association, a cooperative selling organization, which is handling a large part of the crop, is using for the variety known as Honduras 42 pounds, and for the Japanese rices 44 pounds as the weight of a bushel.

At present the rough rice which is placed on the market by the Southern Rice Growers' Association is sold by grades numbering from No. 1 to No. 6. The grading is largely based on color. Grade No. 1 is free from red rice. The percentage of red grades the rice downward. Grade No. 6 contains principally red rice. Besides color, however, the percentage of imperfect grains enters into the determination of the grade. The milling quality of the rice is also an important factor in determining the purchasing value of rough rice.

The harvest season for rice begins during the early part of August and closes during the latter part of October. The heaviest sales of rough rice are made during October, November, and December.

## SEEDS FOR PROPAGATION.

### ALFALFA SEED.

The production of alfalfa seed is not a very staple enterprise in this country, due largely to the uncertainty of the crop. While the sections producing seed vary somewhat with the season, the general area is confined to the dry land and irrigated valleys of the West. The production of alfalfa seed is quite different from that of clover, inasmuch as it is commonly produced in considerable quantities by individuals engaged in growing it. Clover, on the other hand, is usually produced by a large number of farmers, and in most cases each farmer produces only a small quantity. Throughout Texas, Oklahoma, Kansas, and Nebraska the production of seed of alfalfa may be said to be similar to that of clover, while farther west in Colorado, Utah, Idaho, Montana, and Washington seed growing is more of an independent industry and is engaged in on a more definite basis.

In the first States mentioned the seed is grown by the farmer and ordinarily sold to some local seed dealer or elevator man, who may or may not clean it before selling to wholesale houses or jobbers. It is very seldom that the farmer cleans the seed and sells it directly to the wholesale dealer. Since the States in question do not ordinarily produce large quantities of seed in any given section, the wholesale dealers do not make a practice of sending out buyers for the seed, either while the crop is maturing or after it has been harvested. No effort is made by the farmer in these States to pool the crop or to form an organization with a view to in any way controlling the market. In Colorado, Utah, Idaho, Montana, and Washington the situation is somewhat different. These States have areas where seed is produced in considerable quantities and oftentimes large wholesale houses or jobbing concerns put buyers in the field both during the growing period and after the crop is harvested. They do not as a rule contract for seed much in advance of harvesting. There are various organizations, especially in Utah, where the farmers combine for the purpose of marketing their product to the best advantage. Members of this organization consider it to be very useful not only in enabling them to get acquainted with marketing conditions and demands, but also in putting them in touch directly with retail dealers and consumers in many cases. Where the growers have organized the seed is in a sense pooled and frequently stored in common ware-

houses. A representative of the organization arranges for sales to consumers, retailers, wholesale houses, and to jobbers.

The successive stages from which the seed passes from the grower to the consumer are as follows: Grower to local seedsman, grain buyer, jobber, or agent of wholesale house; local seedsman to wholesaler; wholesaler to retail merchant; and then to consumer. In case the jobber enters into it he, in general, sells only to wholesale dealers. Transactions involving the sale of alfalfa seed are mostly on a cash basis.

With the advent of improved strains, or especially adapted strains, of alfalfa, the contract system is coming into use. Certain dealers, especially those engaged extensively in handling the Grimm variety, put seed out under contract. These contracts are along the same line as those followed by seedsmen in general for the growing of vegetable and flower seed.

While there is more seed grown in this country than is imported, the imported seed has a very direct influence on the market. Cheapness of labor in Europe and the low cost of transportation from Europe to America give European seed an opportunity of competing strongly with the home-grown product.

With the exception of the farmers who are organized there is a great lack of definite information on the part of the farmer of markets and market conditions for alfalfa seed. There are many sections where the seed can be grown profitably, but the farmer is not sufficiently familiar with the markets to feel justified in entering into the business.

The principal diversion points for alfalfa seed are Salt Lake City and Ogden, Utah; Pocatello, Idaho; Billings and Chinook, Mont.; Omaha, Nebr.; Kansas City, Mo.; Lawrence, Kans.; Oklahoma City, Okla.; and Fort Worth, Tex.

#### BROOM-CORN SEED.

Broom corn is one of the minor crops of the United States, having an annual value of about \$5,000,000. No effective organization of seed growers exists. For the most part the production and purchase of seed are both haphazard performances. There are several problems presented by the situation.

#### TWO KINDS OF BROOM CORN AND TWO PRODUCING AREAS.

There are two distinct kinds of broom corn, adapted in general to two different sections of the country: (1) Standard broom corn, reaching a height of 10 to 15 feet, with a large stalk and long brush, the peduncle of which must be cut in harvesting. This is adapted to fertile, humid, wind-protected areas, where fodder has little value. Its production centers about Coles County, in Illinois, and extends from Illinois to Iowa, Missouri, Kentucky, Tennessee, and eastern Kansas and Oklahoma. (2) Dwarf broom corn, only 4 to 6 feet high, with slender stems and shorter, finer brush, the peduncle of which can be broken by jerking at harvest. This kind is adapted to drier, wind-swept areas, where fodder has a high value. It is a comparatively new crop and has made possible a new producing area, comprising southwest Kansas and the western parts of Oklahoma and Texas, with adjacent territory in New Mexico.

## WHEN GROWN FOR SEED BRUSH IS SACRIFICED.

To obtain seed of good quality the brush must be sacrificed. Few growers seem willing to do this on even the small area needed for their own seed. Seed gets to the consumer, the man who needs it for planting purposes, from one of five sources:

(1) Professional growers, who grow and sell seed, not brush. These are mostly in the producing area for standard broom corn, since there the industry is older and the value of good seed better appreciated. Some of these growers produce seed of the dwarf also, but under humid conditions. This carefully grown seed is sold to seedsmen or directly to growers or to commission men and other brush-buying agencies, who also buy and sell seed. In this way much seed of standard broom corn is sent to the drier western areas to which it is not well adapted.

(2) Commercial seedsmen, who ordinarily get their seed from the growers mentioned above, sometimes under contract and sometimes on the open market.

(3) Commission firms, warehousemen, broom manufacturers, and similar dealers in brush, who also often buy and sell seed, sometimes as a regular part of their business and sometimes largely to encourage the industry in their locality.

One of the chief evil effects of the exchange of broom-corn seed through the three agencies named above is the sending of so much eastern-grown seed to western growers. The climatic conditions obtaining in Illinois and in the southern plains area are so very different as to make it very doubtful if seed from the former is suited to growing in the latter, even if it be seed of the dwarf kind. Most of the eastern-grown seed is of the standard sort, which is of doubtful value in the drier areas.

(4) Farmers, usually of the better class, who grow brush for sale, and realizing the value of well-selected seed, grow a small area for their own use and usually a small quantity for local sale to less careful growers or to those just starting. This is the ideal method for improving the quality of the crop. All growers should be encouraged to maintain a carefully rogued seed plot.

(5) Professional cleaners of brush, or farmers who clean their own brush. These strip the more or less immature seed from the brush in cleaning the latter for market. Brush is hauled to these cleaners by large numbers of different growers and seed from all conditions of brush goes into the same pile. It is then run through a fan and the lightest and most immature blown out, the heaviest being saved and sold for seed. This practice is fairly common in the western growing area which has been more recently settled. There are several serious objections to this method of obtaining seed:

Much of this so-called seed is immature, resulting in less vigorous plants and irregular stand, both of which affect the resulting crop unfavorably.

The seed, even if mature, is usually mixed, the product of both careful and careless farmers. It may be the product of both kinds of broom corn, also of desirable plants and of those bearing the worst forms of twisted, coarse, or spiky brush, including hybrids of the two different kinds of broom corn and of these with other kinds of sorghum, as sorgo, kafir, milo, since all sorghums are open fertilized.

It aids in disseminating smut, one of the most destructive, though easily controlled, pests of the broom-corn plant.

#### CEREALS FOR SEED.

This discussion includes all of the cereals for seed purposes, as follows: Corn, wheat, oats, barley, rye, rice, emmer, spelt, flax, and buckwheat. By far the greater portion of the seed of these grains sown each year does not enter the trade, but is produced on the farm where it is sown. A considerable part of the grain which is purchased for seeding is produced in the immediate community in which it is sown, and the sales are simply transfers from one farmer to another. The price at which the transfer is made is usually slightly above the market price of the grain for milling or other consumption at that point, though in the case of corn it is usually much higher. Seed of the small grains is sometimes furnished by one farmer to another with the understanding that an equal number of bushels is to be returned after harvest without regard to the market price.

Another way in which farmers obtain seed grain is through the local mill or elevator. In this case the farmer who grows the grain sells it at the market price to the local dealer, who is often a representative of a large terminal warehouseman. This local dealer ships the grain to a dealer at another point where seed grain is desired, charging him a slight advance over the price which he paid. This second dealer then sells direct to the farmer, his price including a slight profit over his purchase price and the cost of transportation between the two points.

A third source of supply is the seed dealer who reaches the farmer through the mails, either by advertising in agricultural or other journals or by means of catalogues. This dealer may produce the seed himself, as in the case of a considerable number of farmer growers who have developed a seed trade in recent years, or he may be a middleman between the grower and the consumer. The seed dealer who acts as the middleman may obtain his seed in any one of several ways. It may be grown for him under contract by farmers, the contract providing for the delivery of a certain number of bushels or of the entire crop at a fixed price per bushel or at a certain advance over the market price. The dealer may furnish the original seed to the grower or the grower may furnish his own seed. The crop may or may not be inspected by the dealer's agent while it is growing with a view to noting its trueness to type, freedom from mixtures and noxious weeds, etc. The contract may not be made until after the crop is produced, in which case the dealer's agent may travel through a district in which good seed grain can be obtained and purchase the crop from the farmer either before or after harvest. It is in one of these ways that the most reliable dealers obtain their seed grain. Others who are less careful of the stock they supply to their trade may obtain ordinary commercial lots of grain of good quality from country dealers or at the terminal markets. In this latter case it is practically impossible to furnish seed of any given variety and the grain is simply sold as seed wheat, seed oats, etc.

The season of heaviest sales by producers direct to consumers is during a month or two before seeding time, in the late summer and early fall in the case of winter grains, and in the early spring in the

case of those sown in the spring. The larger part of the sales from producers to middlemen are made just after the crop is thrashed. The middlemen provide storage for the seed grain until the time when it is in demand from the consumer.

Seed grain is seldom if ever sold at auction and is sold on consignment only when shipped to a commission house as market grain and purchased by a dealer to be resold for seed.

Factors in the seed trade which have developed in recent years and which are likely to prove of benefit are the experimental associations, seed-growers' or crop-breeders' associations, and local cooperative societies. An excellent example of the first class is the Wisconsin Experimental Association, composed of persons who have attended the Wisconsin Agricultural College. The Wisconsin Agricultural Experiment Station supplies the members of this association with seed of new varieties of grain produced at the station or obtained from other growers or dealers, and the members of the association then become distributors in their respective communities. While most of these people do a seed business which does not extend beyond the county in which they live, a few develop a considerable trade both inside and outside the State. When inquiries for seed grain come to the station authorities the inquirers are referred to the member of the experimental association who lives nearest them. The neighbors of the association members are usually quick to realize the value of new and improved varieties grown by the association men and are ready to purchase seed from them at prices which return a good profit.

In a number of States somewhat similar work is being done by State organizations known as crop-breeders' associations. Iowa and Minnesota furnish good examples of associations of this kind. The secretary of the association is usually a member of the experiment station staff and inquiries for seed grain which come to the station and college are referred to him. He publishes a list of association members who have seed grain for sale, this list giving the varieties, quantities, and prices as reported by the various members. The association usually gives some guaranty as to the quality, purity, and germination of the seed offered to the trade by its members. In Kansas the milling department of the experiment station issues a list of growers who have seed wheat for sale and attempts to inspect the crops of these growers before harvest. If an inspection is made the fact is noted on the list and a statement included as to the purity of the crop as it had been seen in the field.

In a few cases local cooperative societies have been organized to handle the seed grain which is grown in a community. The Dassel Cooperative Association, of Dassel, Minn., is an example of this form of marketing. This association owns an elevator at which the grain produced by the members is cleaned and prepared for marketing and from which it is shipped. The manager of the association attends to all details of selling the seed grain and returns to the growers the gross sales less the actual cost of marketing.

With the development of new and specialized strains and varieties of the cereals, selected for their particular excellence in a given locality, it is becoming more and more desirable to limit the trade in these varieties to conditions very similar to those under which they are produced. Experiments indicate that it is very doubtful if pure races

which are produced in one locality will prove to be equally valuable in another 50 or 100 or more miles away. It seems very probable that the best results in the way of establishing high-yielding strains are to be obtained when the trade is confined largely to local growers and dealers. It seems desirable, therefore, to encourage, as far as possible, the formation of experimental associations, State crop breeders' associations, and local cooperative societies such as those which are discussed here.

The trade in seed grain is one in which the factor of market news at the farm does not enter largely. The price is usually fixed by the price at the mill or elevator for commercial uses or by contract some months in advance of the actual delivery. It is usually feasible for the farmer to market seed grain at a profit, as the cost of production is little more than that of the ordinary crop of the same kind grown for commercial purposes, and the return is higher. An essential element of continued success in the seed trade is the furnishing of seed which is true to type, free from weed seeds, and of high germination, as the dealer is largely dependent on the continuation of his custom from year to year and the good will of his customers in recommending him to their neighbors and friends.

#### CLOVER SEED.

The clover seed of the country is for the most part produced in comparatively small quantities, but upon a great number of individual farms. The clover-seed crop is more or less uncertain upon any given farm, and the heaviest producer of seed one year may not produce any surplus the following season. This uncertainty in the source of the supply handicaps the development of a special organization standing between the farmer and the wholesale seed houses. This rôle of collecting the seed from the individual farmer is often filled by some country or town merchant who carries this on as a side line. Quite often such a merchant finds it to his advantage to install a small cleaning machine so that the heterogeneous lots of seed as regards quality and purity can be reduced to a common standard before the bulked seed is shipped to the wholesale houses.

The numerous small shipments of seed received by the wholesale houses are still further cleaned when necessary. The cleanings are in some cases returned to the shipper as evidence of deduction in weight when seed is purchased on the re-cleaned basis. In a few cases the local merchant sells the seed brought in by farmers at retail and wholesale to the trade, carrying this on as an important adjunct to their regular businesses. An instance of this is in Chinook, Mont. The farmer ordinarily disposes of his surplus soon after harvest. The hulling operations are ordinarily not completed until November, and the retail movement of the re-cleaned seed is in full sway before the end of February. Local hardware merchants are the ordinary agents for the collecting and forwarding of the seed to the wholesale houses. They also frequently retail clover seed the following spring.

#### SEED CORN.

The investigations of seed corn that it has thus far been possible to conduct have related mostly to productiveness and profits derived by the farmer from his corn crop. During the past few years it has

become more and more apparent that the farmers' profit depends to no small extent upon his knowledge of best methods of marketing the crop. If the farmer is engaged in buying or selling seed corn his profit not only upon the seed, but also upon the crop grown from it, is controlled by his knowledge of seed corn and systems of marketing it. The prosperity of the country is so directly dependent upon our corn crop as to warrant a systematic investigation of the methods employed by firms that ship large quantities of seed corn. By such investigations the extent and causes of loss due to the planting of misrepresented seed or seed shipped to points to which it is poorly adapted could be ascertained, and in many cases heavy losses from unprofitable crops prevented.

#### ESSENTIAL ELEMENTS OF SUCCESSFUL MARKETING OF SEED CORN.

There are two classes of dealers attempting to take advantage of the strong demand for seed corn. First, honest, conscientious dealers continue to sell under the same varietal name good, properly preserved, home-grown seed of well-tested and reliable varieties. This class of dealers, marketing seed corn necessarily at a high price with profit to their customers as well as to themselves, is yearly increasing and gaining the fuller confidence of their customers. Second, unscrupulous dealers who, by frequently changing varietal names, their locations, and practices, continue to impose upon farmers and profit financially to the great injury of the corn crop and all efforts toward its improvement. The attempt to compete with unscrupulous dealers by selling good seed corn at a small profit has driven many honest seed-corn growers out of business.

#### DISSEMINATION OF INFORMATION REGARDING SEED CORN.

Fortunately most of the evils connected with the marketing of seed corn can best be eliminated by marketing the seed in the locality in which it is grown; furthermore, investigations have demonstrated that locally grown seed is usually much superior to seed obtained from other localities. There are instances in which small seed-corn dealers, without reputation or customers at home, cause poor crops for those to whom they ship poorly adapted seed. Such loss, however, is more extensive in the case of large seed-corn dealers who ship for seed purposes good appearing corn with little regard to its adaptation to the locality in which it is to be planted. Farmers can be most rapidly brought to the full realization of the superiority of home-grown and well-preserved seed corn by increasing the number of local demonstrations of the profitableness of constructing houses for properly preserving seed corn. A few such houses have returned in one year several times their cost through the superior productiveness of seed kept in them. In cooperation with enterprising farmers demonstrations of this kind can be conducted in every county with great profit to the farmer and without cost to the Government, except for the supervision of the work. Nothing could tend more greatly toward the prosperity of the country nor go further toward eliminating the evils incident to the marketing of seed corn.



**COWPEA SEED.**

Cowpea seed is grown throughout the Southern States, northward to central Illinois and Maryland, and in California. In California only the blackeye variety is grown, and this is handled in the same manner and by the same firms who purchase lima beans. In the Southern States cowpea seed is picked mainly by hand and thrashed from the pod, but in Missouri, southern Illinois, and to a less extent in other States, the beans are harvested and thrashed with machinery.

Blackeye peas are mostly sold locally, being utilized as human food. Other varieties used for the growing of forage crops are handled by local dealers, but in some cases they are grown under contract with seedsmen. The price seems to be fixed in the main by the local buyers.

**FLOWER AND VEGETABLE SEED.**

The growing and marketing of vegetable and flower seeds in the United States has become a highly specialized business. Reliable statistics as to the acreage planted and quantity of seed produced and marketed annually are almost entirely wanting because of the reluctance of the larger growers and seed houses to disclose the location and acreage of their seed crops as well as the surplus stocks in their seed warehouses, but the area planted is large and quantity of seed produced and marketed is enormous. The largest items among the vegetables which are produced in ton lots by single growers are seed beans, sweet corn, garden peas, vine seeds, such as cucumber, muskmelon, watermelon, and squash, and onions, radish, lettuce, tomato, cabbage, carrot, and turnip. Items of vegetable seed grown and marketed in this country to a lesser extent are artichoke, asparagus, garden beet, broccoli, cauliflower, celery, collards, egg plant, endive, kale, kohlrabi, mustard, okra, parsley, pepper, pumpkin, salsify, and spinach.

The growing and marketing of flower seeds in the United States is still a comparatively small industry because of the limited demand and the cost of the hand labor involved in harvesting the seed. The largest items are sweet peas, nasturtium, asters, morning glory, calendula, candytuft, dianthus, poppy, and zinnias. Many other varieties of flower seeds are grown, but because of the small size of the individual seeds or the limited demand for them the total quantity produced is small. This class includes such seeds as petunia, pansy, salvia, ageratum, centaurea, celosia, delphinium, foxglove, four o'clock, hollyhock, kochia, larkspur, lobelia, mignonette, nigella, pentstemon, phlox, portulaca, rudbeckia, salpiglossis, stocks, verbena, and wall flower.

**GROWERS OF FLOWER AND VEGETABLE SEED.**

Practically all flower and vegetable seed is grown by specialists or by farmer growers under the supervision of specialists, as there is very little market for seed where the varietal name is not known, or the purity and excellence of the stocks are not vouched for by a grower or dealer of established reputation.

The wholesale trade of the country is in the hands of a few principal firms in the larger cities and a large number of smaller firms.

Most of these wholesale houses own seed farms and equipment of their own and lease and operate additional seed farms, besides contracting for seed crops with farmer growers.

In addition to the wholesale firms which grow a large part of their own seeds, are growers who make a specialty of one or more seed crops and do not attempt to grow anything else, such as onion, beans, corn, peas, tomatoes, vine seeds, and flower seeds. These specialists usually own or rent farms which they operate, and they also contract with farmers for growing seeds of certain varieties under their supervision.

A third source of supply are crops such as sweet corn, peas, tomatoes, or beans, planted primarily for the canneries, cucumbers for pickling, or muskmelons and watermelons for marketing, but because of unfavorable weather conditions or a glut in the produce market it is found to be more advantageous to save the crop for seed.

#### MARKETING FLOWER AND VEGETABLE SEED.

##### MARKETING BY THE GROWER.

Probably 75 per cent of all the vegetable seed and 95 per cent of all the flower seed grown in the United States by farmers and by specialists is contracted for in advance at a stipulated price per pound or bushel for fall delivery to the wholesale seedsmen. Many of the contracts of farmer growers are oral, and all of the contracts are brief and simple. They usually provide that the seedsmen shall supply the stock seed and that the grower shall furnish the land, fertilizer, and labor, plant, cultivate, rogue,<sup>1</sup> and harvest the crop, and deliver at the nearest railroad siding a specified number of pounds and in other cases the entire seed product of a certain area, the seed to be properly cured, of satisfactory germination and appearance of sample. Most contracts provide for inspection of the growing crop by the seedsman or his agent, and that the contract may be canceled if the fields are not properly rogued, the roguing to be done at the expense of the grower, or if the bulk seed is not of satisfactory appearance and viability.

The prices paid vary with each kind of seed, but is usually sufficient to give the farmer grower a slightly larger return per acre than he could hope to make on the same land with the customary field crops of his locality. If the season is unfavorable and there is a crop shortage, the grower usually has to deliver and is paid for only the amount actually raised on the area contracted for. If, however, the contract is for a certain amount of seed and the grower harvests a crop in excess of the quantity specified in his contract, the excess seed is either left on his hands or he sells it to the seedsman for less than the contract price, so that in unfavorable seasons the grower loses and good seasons he makes very little profit.

The contract price at which the producer sells his seed is very much lower than the price the final purchaser has to pay, the difference in price ranging from 10 per cent to 1,000 per cent. For instance, lettuce seed may be grown under contract for 13 cents per pound and is retailed at \$1.25; radish seed may be grown for 8 cents per

<sup>1</sup>To remove plants not true to the desired variety.

pound and retailed at 75 cents; muskmelon seed may be grown for 10 cents to 16 cents per pound and retailed at \$1.25; sweet corn may be grown for \$1 to \$2.50 per bushel and retailed at \$5; peas may be grown at \$1.25 to \$3 per bushel and retailed at from \$5 to \$25; onion seed may be grown at 35 cents to 50 cents per pound and retailed at 80 cents to \$2.50; sweet peas may be grown at 6 cents to 9 cents per pound and retailed at 60 cents to \$2. In years of extreme crop shortage the difference between contract growers' price and the cost of the same seed to the last purchaser is very much greater.

#### MARKETING SEED BY THE SPECIALIST.

The grower who has an established reputation for handling a superior strain of some particular variety of vegetable or flower seed usually contracts in advance for furnishing the bulk of the seed crop to wholesale dealers and for furnishing smaller lots to truck growers and market gardeners. Because of the limited quantity and high quality of such seed, the specialist usually has no difficulty in obtaining very much higher prices for his product than farmer growers, and in case of surplus in excess of his contracts, he can usually find a ready sale for it. The price received by the grower of this class of seed will range from 50 per cent to 500 per cent more per pound than for the ordinary run of seed produced by farmer growers on contracts. For such seeds as celery, for instance, the specialist may obtain from \$8 to \$20 per pound; for special strains of petunia, he may receive as much as \$20 to \$100 per ounce; but in all such cases the strains are new or extra select, and the supply of seed is exceedingly limited.

#### MARKETING SURPLUS SEED BY GROWERS FOR THE PRODUCE TRADE.

Where vegetables are grown for the canning factories and for the produce markets, but for various reasons the purpose for which the crop was grown is not carried out and the fields are harvested for seed, the surplus stocks of seeds thus produced are usually sold at less than prevailing market prices to wholesale dealers. The quantity of such seeds fluctuates from year to year, depending on the season and the prices prevailing on the produce and on the seed markets. While this source of seed is very uncertain, in some seasons the supply is sufficient materially to affect the market and reduce the contract prices to the farmer growers the following season.

#### MARKETING SEED BY WHOLESALE DEALERS.

The wholesale dealers obtain their supply of seeds from their own farms, have it grown under contract by farmer growers or specialists, or purchase surplus stocks from seed growers or growers for the produce market. The wholesaler sells his seed in quantity to retail dealers, either from "surplus stocks" (seed in the warehouse) subject to immediate delivery, or under "growing contract" (to be grown) subject to delivery after harvest. Sales under "growing contract" usually contain a clause providing for "pro rata delivery" in case of crop shortage, i. e., if there is a 20 per cent shortage in the seed crop the wholesaler can not be required to deliver more than 80

per cent of the amount specified in the contract. The wholesale price of seed is not much in excess of the price paid to the grower, plus cost of transportation, recleaning, handling, and overhead charges, and will range from 10 per cent to 100 per cent over the grower's contract price. The sales are usually effected through salesmen who are either paid a salary or a commission. The larger dealers usually send out wholesale price lists to their customers.

#### MARKETING BY RETAILERS.

Nearly all wholesale houses maintain one or more retail stores, issue retail catalogues, and do a mail-order business the same as the regular retail establishments in the principal cities. In addition to the retail stores, a number of the wholesale houses and larger retail establishments put out collections of packeted garden and flower seeds to be sold on commission by grocery stores, hardware stores, and drug stores in the smaller towns and country villages. This business is very profitable. The seeds in packets are sold at a uniform price of 5 cents or 10 cents. The packets will run from 300 to 400 per bushel for the larger seeds, such as corn, peas, and beans, selling retail at \$15 to \$30 per bushel, for which the seed cost wholesale from \$3 to \$4 per bushel, and for which the contract grower received from \$1.50 to \$2.50 per bushel. Petunia seed will run approximately 1,000 packets per pound and will sell retail at from \$50 to \$100, the seed costing wholesale not over \$2.50 per pound, for which the contract grower received about \$1 per pound. The cost of the packets and the labor of putting up the seed will not exceed one-fourth of a cent per packet.

#### SUMMARY.

The essential feature of the seed business is the system of contracting in advance of the planting season for supplies of seed to be delivered after harvest. The term of these contracts corresponds with the crop year. They usually provide for payment, full or partial, on delivery, on conclusion of satisfactory tests for germination, or at the end of 30 days, 60 days, or 90 days after delivery. Seeds are not consigned on commission, the only commission sales being made by regular salesmen of the larger seed houses or where collections of packeted seeds are placed with storekeepers in towns and villages.

Sales to local buyers for delivery to local shipping points are confined to collard seeds in the South and small stocks of surplus melon seeds where the fruits intended for shipment to the produce market were allowed to mature for seed.

Direct sales to seed consumers are made only to a very limited extent in the immediate neighborhood where the seed is grown or in the case of a specialist who has more than a local reputation. Practically no seed is sold through cooperative selling associations, but sales of seed to cooperative buying associations are frequently made by wholesalers.

There are no established grades for vegetables and flower seed, although special strains of a given variety are developed by growers and exploited by dealers. Seed is universally sold by the pound,

except peas, beans, and corn, which are sold by the bushel east of the Rocky Mountains.

The heavier sales are made by producers before the planting season opens, when contracts for growing seed are entered into, and in the fall, when surplus seed in excess of contract requirements is available.

Vegetable and flower seed is sold by the farmer-grower to the wholesale seedsman without guaranty and usually for cash on delivery; by the wholesaler to the retail seedsman with payment in 30, 60, or 90 days; and by the retail dealer to the final purchaser for cash. The only form of guaranty used by wholesale and retail dealers is the form approved by the American Seed Trade Association, as follows:

We give no warranty, express or implied, as to description, purity, productiveness, or any other matter of any seeds we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

This disclaimer or nonwarranty clause will be found printed in all seed catalogues, price lists, letterheads, and seed packets, usually in small type or in an inconspicuous place, and it often appears under the heading "Guaranty."

The larger seed houses are usually incorporated, with the customary officers. Most of them have a contract or seed-growing department, with farm superintendents and superintendents of trial grounds, inspectors, foremen, and laborers; a shipping department for receiving, handling, and shipping seed; a wholesale selling department, and probably a retail selling department. The retail establishments also have a packeting department in addition to their buying and selling branches. There are few, if any, large commission houses which make a business of selling seeds for producers. Seed is never sold at auction, and there are no public market places for private sales in the wholesale trade. The principal sales to retailers are made either on contract before the growing season or for surplus stocks after harvest, delivery to be made in time for the following spring trade.

In marketing, the principal item of expense to the farmer-grower is the hauling of the seed from the farm to the shipping station. The principal items of expense to the wholesaler in marketing seeds are freight, storage, recleaning, salaries of salesmen, and overhead charges, including advertising. The principal items of expense to the retailer are freight, storage, packeting, or bagging, advertising, rent, and salaries of salesmen.

Seeds are rarely stored or carried over by the farmer-growers. Wholesale dealers are usually well equipped with seed warehouses for cleaning and storing seed, and surplus seed is often carried over one or more years, depending on the nature of the seed, the seed yields, and the state of the market. Probably the bulk of seed handled by wholesalers, except stocks regularly carried over one year to protect their contracts, would remain in storage from about the middle of November to the 1st of April. The retailer carries his stocks from about December to April, inclusive, and such seeds as he fails to dispose of before the close of the planting season will be carried over until the next season or until they become worthless through loss of vitality.

The farmer growers usually deliver their seed by wagon at the nearest railroad station, which is rarely more than 5 miles from the farm. The wholesale establishments usually have a warehouse in the seed-producing centers, such as the bean and pea growing sections of New York, Michigan, and Wisconsin, the corn and vine seed sections of Iowa, Kansas, Nebraska, and Colorado, and the lettuce, radish, and flower seed sections of the Pacific coast. The seed is shipped direct from these points to retailers, and the distance will vary from less than 100 miles to 2,500 miles, the shipments being made over the main railroad lines of the country.

Less bulky seeds and seeds grown in smaller quantities are shipped direct from the grower to the main warehouse of the wholesaler. The retailers, of course, dispose of a large part of their garden seeds over the counter or send them out by mail.

Although the current market value of any particular variety of seed depends on the present crop, the farmer growers have no regular means of obtaining reliable information as to the prevailing market prices and to that extent are at the mercy of the wholesaler. The wholesale trade keeps well informed as to crop prospects, yields in the different growing sections, quantity of seed of different stocks in existence, and prevailing market prices, through their salesmen, inspectors, and representatives in different sections through the American Seed Trade Association and the Wholesale Seedmen's League, both of which organizations serve as a clearing house for seed crop and market news. There is also a Seed Trade Reporting Bureau in Chicago which supplies information to subscribers twice a month, and some of the florists' trade journals carry a page devoted to the seed business. The retailers secure information regarding seed prices from the same sources as the wholesalers, but to a much more limited extent.

The ignorance of the farmer grower with respect to conditions of the seed market is undoubtedly a serious handicap in many instances. Under present prevailing conditions he can not acquire the necessary information except at prohibitive expense. As a matter of fact the farmer grower bases his contract price on the cost of production to him without regard to market conditions.

The system of contracting for seeds in advance of the cropping season is of long standing, is universally employed in the seed trade not only in this country but abroad, and it is doubtful if any better system can be devised for the distribution of garden seeds through private agencies. Probably the only practicable system which would do away with the necessity for contracting for seeds in advance would be supervision of the breeding, selection, roguing, and harvesting of seed and a certificate as to its quality either by the Government or by a competent and responsible association of the growers themselves. The advantage of the contract system which is characteristic of the seed trade is that it enables the farmer grower to plan his crops in advance and to plant a definite acreage. It also enables the wholesaler to inspect the growing fields from which his seed is to be supplied and to sell to the retailers in advance of harvest for future delivery. By far the largest profits are obtained by the wholesalers and retailers, especially the latter. The function now performed by the wholesalers might be performed by well-organized cooperative selling associations, but it is doubtful if such associa-

tions could compete with retailers in selling packeted seeds direct to consumers because of the amount of detail involved in filling the enormous number of small orders. Possibly the retailer might be eliminated to a certain extent if consumers would organize buying associations and pool their orders for packeted seeds or purchase seed in bulk and packet it themselves.

### GRASS SEEDS.

#### KENTUCKY BLUE GRASS SEED.

In the method in which it is prepared for market and in the marketing of the seed Kentucky blue grass differs widely from clover, timothy, or other grass seeds. Owing to the fact that special machinery is necessary to put the seed of Kentucky blue grass into a marketable condition the seed is forced to pass through comparatively few hands. This being the case, it has been possible at various times for a few seedsmen practically to control the situation. Central thrashing and rubbing plants are necessary for preparing the seed. These are located mostly in northern Kentucky, with perhaps a very few in Missouri and Iowa. The farmer is forced to sell to the operators of these thrashing plants. In this regard one of two methods is usually followed. The farmers sell either directly from the stripper or cure the seed after stripping and sell for August or September delivery. In some cases another practice is followed, which is really only a modification of the first. In this case the farmer contracts with seedsmen to strip the fields with their own machines and labor. When the seed is sold directly from the stripper it is hauled to the thrasher in large burlap bags and is purchased usually on grade. In some cases the seed is sold on grade and in other cases by the number of pounds per bushel; in other words, if either weeds or other inert matter is present in the seed the price is lower than the standard, or the seed might be sold at 15 or 16 pounds per bushel, which is an advance of 1 or 2 pounds over the recognized weight. In Kentucky there is usually quite a quantity of seed hand-stripped. This demands a higher price than machine-stripped seed on account of it being free from weeds and other inert matter. Farmers in Kentucky frequently organize a pool and hold out against the seed cleaners, or "combine," as it is called in some cases. These pools have not, in the main, been of material advantage. Large handlers of seed in Kentucky frequently control to a considerable degree the seed produced in Missouri and Iowa.

The successive stages through which the seed passes from the grower to the consumer are usually about as follows: From the farmer to the seed cleaner, who is usually quite extensively engaged in the Kentucky blue grass business; from the seed cleaner or combination of seed cleaners to wholesalers and retailers directly—very seldom to the ultimate consumer or jobber. Terms are mostly cash.

The main diversion points for Kentucky blue grass seed are Winchester, Paris, and Lexington, Ky., and St. Louis and Kansas City, Mo.

Farmers in Kentucky as a rule are fairly well posted on the market with respect to Kentucky blue grass seed. In Missouri and Iowa this is not true to such a large extent. Kentucky blue grass seed is a

definite enterprise in Kentucky, and farmers may be said to be almost as familiar with the market for this crop as farmers in the corn belt are with the market for corn.

#### ORCHARD GRASS SEED.

The restricted area over which this seed is produced on a large scale makes the growing of orchard grass seed a very definite enterprise. The orchard grass seed of this country is produced almost entirely in Kentucky, Ohio, and Indiana. In these States it is a cash crop, and in most cases the growing of other crops is more or less subordinate to it. Large fields are grown for seed, and the seed is harvested much in the same manner as wheat. On account of the concentrated area of the production, buyers from the wholesale houses and jobbers appear on the ground to contract for seed considerably in advance of harvest. It may be said that a large proportion of the orchard grass seed crop is sold by the farmer to the jobber and wholesale dealer, and that a comparatively small quantity is handled by the local seedsmen. Orchard grass seed is bought on grades which are established by common consent. The transactions are usually strictly on a cash basis.

The main diversion points of orchard grass seed are Louisville, La Grange, and Shelbyville, Ky.; Charleston and Jeffersonville, Ind.; and Cincinnati, Ohio.

Farmers in Kentucky, Indiana, and Ohio are usually well posted in the market for orchard grass seed, but those without this region, especially in Tennessee, Virginia, and West Virginia, where the seed is grown incidentally, are very much in need of market information.

#### MEADOW FESCUE.

The region of meadow fescue seed production in the United States is limited almost entirely to northeastern Kansas. Some small quantities are also produced in Missouri and States farther east, but not enough to affect in any way the general market conditions: There are always persistent rumors in the region of meadow fescue production to the effect that the seed is used for tanning purposes in Europe and that therefore there will be a demand for large quantities of it. Careful investigation of this point through American consuls has failed to confirm this supposition; and the fact that even under conditions which now exist, with the region of seed production limited to a very few counties in one State, we have on several occasions found the market overstocked would lead us to believe that there is no such use made of the seed.

The producer disposes of his meadow fescue seed both by sales to local seed merchants and to buyers connected with the large seed houses. Owing to the fact that the region of production is limited, the matter of keeping a representative of the seed house on the ground is not overexpensive, and this practice is carried out to a great extent in the buying of the seed. Sales are made in a great many instances prior to the harvest: the representative of the large seed house looking the field over before it is harvested and making a contract with the farmer to deliver the seed at a local shipping point. The seed is paid for in some cases at the time of delivery,



according to the amount of pure seed. This is determined by the seed house, which in cleaning a sample of the seed establishes a percentage of foreign matter on which basis the seed is paid for. Many sales are also made at a flat rate, the representative of the seed house making the offer on his own judgment of the value of the seed when harvested. Very few cooperative selling agencies exist. The season of heaviest sales by the producer is usually July 20 to September 1. The successive steps in the movement of the seed from farmer to the retailer are about as follows:

Most often it is producer to representative of the large seed house, seed to be delivered to local shipping point. Terms, cash on delivery.

Large seed house to retail merchant in small towns. Terms, 30 days.

Merchants concerned in retailing the meadow-fescue seed are about the same as those taking part in the distribution of the millet seed. In some cases the first step is from the producer to a local seed merchant and from this seed merchant to the general seed house.

Very little meadow-fescue seed is stored either by the producer or the seedsman. In cases where there happens to be an overproduction of seed the large seed house sometimes holds over a considerable supply of seed for one year, but usually not for a longer period owing to the decrease in viability which takes place.

The principal diversion points for meadow-fescue seed are Kansas City, Mo.; Atchison, Kans.; and Chicago, Ill.

Growers of meadow fescue are very apt to depend for their information regarding the market on the representatives of rival seed houses when they visit the fields prior to harvest. In some cases quotations are furnished regularly by seed houses to parties in the meadow-fescue district who are accustomed to grow a considerable acreage.

#### REDTOP SEED.

The redtop seed of the world may be said to be produced in a few counties in southern Illinois. In these counties redtop seed is a staple crop and is considered the cash crop. Redtop seed requires no special machinery as does Kentucky blue grass for its preparation for the market, and therefore there is more open competition in connection with its trade. The seed is produced in many cases in large quantities on individual farms, where it is thrashed and often cleaned before leaving the farm. The seed was at one time sold in the chaff on what is known as "points," or, in other words, on the fancy or silver seed that the chaff would yield. This practice is now falling into disuse, and in most cases the seed is sold on general appearance and weight.

Since the area over which the seed is produced is so small, numerous attempts have been made to corner the market, and some are said to be quite successful. A common practice for large wholesale dealers is to put buyers in the field some time in advance of harvest for the purpose of contracting with the farmer for his crop. While this is done to a large extent by local dealers who handle seed in large quantities, jobbers also come in for their share of the crop. One dealer in Olney, Ill., probably handles more redtop seed than any

other one dealer in the country. He not only buys in competition with other wholesale houses but frequently for other wholesale houses. This practice is quite commonly followed. While jobbers come in for their share of the seed, the larger wholesale houses usually buy their supply either directly from the farmer or from the large local dealer. Terms in most cases are cash.

The main diversion points for redtop seed are Fairfield, Centralia, and Rinard, Ill.

While redtop is a cash crop and is grown as a staple and not as an incidental crop by farmers in southern Illinois, farmers are not always in best touch with market conditions. It is frequently very difficult for a grower to estimate even as late as June what the price will be in July or August, when the seed is placed on the market.

#### TIMOTHY SEED.

The production of timothy seed is very much the same as that of red clover in respect to the quantity, so far as the farmer is concerned. The growing of timothy seed in general throughout the entire timothy region is incidental and not a definite enterprise. A large number of farms produce a small quantity of seed, and a comparatively few farms make seed growing a business. Weather conditions, conditions of labor on the farm, and the price of hay and seed usually determine, so far as the farmer is concerned, whether a crop of seed will be harvested.

While timothy seed is largely sold locally by the farmer to grain buyers and local seedsmen, in many sections, especially where there are considerable quantities of seed produced, the large wholesale houses have buyers in the field during harvest. There are, as a rule, comparatively few jobbers on the ground at that time. When the jobber enters in he usually purchases the seed from the local dealer and sells mostly to the wholesaler.

The successive sales of timothy are for the most part on a cash basis.

Seed of timothy is threshed with the ordinary threshing machine, and in most cases is not further cleaned until it reaches the wholesale dealer. Very large quantities are put through the cleaning mills and prepared for the retail market.

No standards are generally recognized in the case of timothy seed, but practically every large dealer has grades which he has fixed for himself.

The principal diversion points for timothy are Minneapolis, Minn.; Kansas City and St. Louis, Mo.; Chicago, Ill.; and Toledo and Cleveland, Ohio.

While the price of timothy seed fluctuates considerably, it is generally considered to be a profitable crop. However, few farmers are engaging in its production, chiefly due to the fact that they are not acquainted with the markets. The average market report does not quote timothy, and unless the farmer is acquainted with some wholesale buyer he does not feel that he can afford to take the risk of growing a large quantity of seed, depending on the local seedsmen for his outlet.

## MILLET SEED.

The millet hay is marketed in about the same manner as the hay of ordinary cultivated grasses, except that there being very little of it sold on the city markets, no regular quotations are to be had. Most of the millet hay is being fed on the farm of the producer.

Seed of the ordinary foxtail millets is not used to any great extent as a grain, most of it being sold for distribution to parties who desire it for seeding purposes. The regions of production are also limited, and most of the seed is sold to local buyers who very often run general feed stores in the small towns. In other cases it is bought by the grain elevators or other grain buyers, who dispose of it to the large seed firms in centrally located points, from which it is delivered to the retail merchant. This is the manner in which perhaps 80 per cent of the foxtail millet seed of the country is marketed.

Very little of it is sold prior to harvest, and the local buyer usually does the cleaning. A small percentage of millet seed is disposed of directly to neighboring farmers or resold by the local buyer to such parties.

There seem to be no regular grades of millet. The weight of German millet seed is supposed to be about 50 pounds per bushel in most States and the determination of the grade is usually in the hands of the purchaser.

The season of heaviest sales by producers would extend from about August 15 to October 1. Very little seed of the ordinary foxtail millets is grown under contract; only the improved strains being grown in this way.

Seeds of the broom-corn millets are used for feed in more cases than the foxtail millets, and, therefore, there is a larger consumption of this seed in the region of production than there is of the seed of the foxtail millet.

A list of successive sales in the movement from the farmer to the retailer are about as follows:

Producer to local buyer or seed merchant. Terms, cash.

Local merchant or grain elevator to seed house. Terms, cash or 30 days.

Seed house to retail merchants. Terms, 30 days.

The retail merchant in this case may be almost any kind of a merchant in these small towns. Grocery stores, department stores, and hardware stores all handle the seed. The season of principal sales to the retail merchant is about May 1 to July 1.

The chief items of expense in marketing are transportation charges. The expense of recleaning the seed is usually very small owing to the fact that millet seed can be cleaned very well in the ordinary thrashing machine used by the farmer.

Storage of millet seed is very slight. Farmers seldom hold any great amount because there is little demand for it as a stock food and it is very apt to be sold directly from the thrashing machine to the local seed buyer. Middlemen pass the seed on to the large seed houses as soon as possible, and it is held over at such points until its distribution to the retail merchant takes place the following spring.

The distance over which shipped is usually not large owing to the fact that a great deal of millet is grown as a catch crop throughout the prairie States.

The principal diversion points for millet seed in the United States are, for southern-grown German millet: Nashville, Tenn.; Richmond, Va.; and Augusta, Ga. For the ordinary German millet and common millet: Chicago, Ill.; St. Paul-Minneapolis, Minn.; Des Moines, Iowa; Kansas City, Mo.; Omaha, Nebr.; Denver, Colo.; Fort Worth and Dallas, Tex.; New York, N. Y.; Philadelphia, Pa.; and Baltimore, Md.

The farmer does not avail himself as a usual thing of market quotations in selling his crop of millet seed. Unless conditions have been such as to produce an oversupply of millet seed the farmer usually is able to market it at a fair profit. In some cases, however, where the growing of millet has been general throughout the country, the market becomes glutted and it becomes almost impossible to dispose of the crop.

#### FIELD PEAS.

Owing to the fact that a majority of the field peas produced are fed on the farm of the producer or by local stockmen, there is no great movement of field-pea seed on the market. The seed which does find its way on the market usually comes through the channels of the grain merchant, being sold by the producer to the local elevator or grain buyer and by these parties to the general seed houses or to large feed stores. Very few sales are made prior to harvest.

The grades and weights are determined by the local buyer. The season of heaviest sales by the producer varies with the locality. In the north part of the United States the season of heaviest sales follows directly the harvest, which takes place from the middle to the last of August. Sales to the retailer are usually made very early the following spring, the large seed house which distributes being responsible for the seed between these two dates.

A great deal of the seed of field peas used by farmers in the United States used to be imported from Canada. The principal diversion points probably are Chicago, Ill.; Milwaukee and Madison, Wis.; St. Paul-Minneapolis, Minn.; and other points along the Great Lakes.

#### SUGAR BEETS.

By far the largest percentage of sugar beets is grown on small plots and the product furnished the sugar factory. In starting a new sugar factory it is generally customary for the factory to buy a number of farms the acreage of which will furnish from one-third to one-half of the supply of beets, but as the company becomes older and more settled the land is often sold off or rented to farmers. In California the individual plots are much larger, and in consequence the number of growers furnishing a sugar factory with beets is smaller than in practically any other State outside of Utah. In Colorado and in Michigan the plots are small, ranging from 5 up to 40 acres in general and in a few cases 100 and over.

The sugar company generally makes three to five year contracts with the farmers to grow beets on a certain number of acres each

year. This contract binds the farmer to grow the beets and to have the supervision of the agriculturist of the sugar company. A form of agreement of one sugar company is here given.

*Memorandum of agreement between ————, grower, and ————.*

1. The grower agrees to plant, cultivate, irrigate, harvest, and deliver during the season of 1911, in compliance with the directions of the company, as may be given from time to time, ——— acres of sugar beets on the following-described lands, to wit, — quarter, section —, township —, range —, ——— County, Colo.

2. Seed will be furnished by the company at 10 cents per pound; not less than 20 pounds per acre shall be planted, and none other shall be used.

3. The grower agrees that all beets grown by him will be delivered to the company, in the factory sheds or aboard cars, and as ordered by the company, properly topped at the base of the bottom leaf, subject to proper deductions for tare, free from dirt, stones, trash, or foreign substances liable to interfere with the work of the factory, and that he will protect the beets from sun and frost after removal from the ground. The company has the option of rejecting any diseased, frozen, or wilted beets, beets of less than 12 per cent sugar or less than 80 per cent purity, or beets that are not suitable for the manufacture of sugar.

4. Beets delivered and accepted will be paid for by the company at the rate of \$5 per ton for beets testing 12 per cent sugar, and 33½ cents additional for each per cent above 12 per cent.

Payment the 15th of each month for beets delivered during the previous month.

5. The company will pay 50 cents per ton additional for beets siloed and delivered; siloed beets shall not be delivered except upon call of the company.

6. The company will pay the freight on all beets delivered by railroad, but cars must be loaded to their capacity. Extra charges for cars loaded less than capacity will be charged to the grower.

7. The company will give to the grower, at the factory without charge, beet pulp not exceeding 20 per cent of the weight of the beets delivered by him under his contract, providing the grower gives written notice to the company previous to July 1 of the quantity desired; the pulp to be taken by the grower during the time of slicing, as the company may direct.

8. Any advances made to the grower by the company in the way of seed, cash, labor, or otherwise shall be considered as part payment for the crop of beets and be a first lien thereon. The grower agrees not to assign this contract without written consent of the company.

9. No agent of the company is authorized to change the provisions of this contract.

(Signature of grower)

\_\_\_\_\_  
COMPANY,  
By \_\_\_\_\_.

Date \_\_\_\_\_.

This particular form, while used by one large company, represents the general form of contract of other sugar companies. The seed for the crop is furnished to the farmer by the sugar company, as is noted, at a stated price per pound. The farmer can pay this amount or it will be taken from his first delivery of beets. The sugar company maintains a corps of agriculturists, who keep track of the number of acres in their particular section and the condition of the crop from time to time, and also give advice regarding the cultivation and harvesting of the crop. With a large number of sugar companies a flat price of, say, \$5 a ton is offered the farmers for their beets—that is, all of the beets grown by the farmer have to be delivered to the company and they will receive a price for them figured at \$5 a ton.

The weighing of the beets is done by the sugar company in the presence of a weigher, who may be appointed by an association of

the farmers. The question of the weight of a lot of beets is a point of great contention between farmers and the company. The beets are supposed to be topped—that is, all portions growing above ground be removed—and also they are to be free from dirt and in a healthy condition. As the lot is being dumped into the sugar factory or into a pile a sample is drawn. This sample is weighed and the beets cleaned of dirt and also properly topped, if not already, and a second weighing made, the loss being considered the tare. From the gross weight of the beets received the percentage of tare is taken and the farmer is paid for the tared beets. This is customary in practically every sugar factory in the country.

In place of the fixed price per ton of beets there is offered in most factories a sliding scale—that is, beets of 12 per cent sugar will receive a certain price per ton, which in the above contract is \$5, and for each per cent above 12 an addition of a certain amount, which in this contract is  $33\frac{1}{3}$  cents, is added to the \$5. The method of determining the price is to analyze the sample that has been used for obtaining the tare. The analysis is conducted by the chemist of the beet-sugar company, but farmers' associations are allowed to have present their chemist in the laboratory of the sugar company to read these beets and form a check on the sugar company's chemist, providing the salary of this man is paid by the association. The farmers seldom avail themselves of this opportunity. The sugar company reserves the right to say how many tons of beets shall be delivered at any one time by any farmer, the allotment generally being in proportion to the number of tons of beets he has raised, and this allotment is made regularly every week. A few companies agree to take all of the beets by a certain time, say the 15th of November. These beets are then stored by the sugar company in piles to be worked up at a later date, but most companies add an additional 25 to 50 cents per ton for beets in the ground after the 1st to the 15th of November. At this time the farmers are supposed to harvest their crop and to pile the beets in the silos, the siloed beets receiving the additional price, which is supposed to cover the cost of siloing. With most sugar companies the farmers are paid every 15 days for the beets they have delivered during the past 15 days. The freight charges are paid by the sugar company, as seen in the above-cited contract.

#### SUGAR FROM BEETS.

The beet-sugar factories of the United States produce practically only one grade of sugar, viz, white granulated. The second sugars so produced are generally melted up and passed into manufacture again, to be turned out finally as white granulated. Rooms are generally available at the beet-sugar factory for the immediate storage of their sugar, but the larger percentage is shipped to be stored in large warehouses at some near point. The beet-sugar factories have their brokers who handle the output. The steps in reaching the consumer here are often the sale of the sugar by the sugar company's broker to the broker of the purchasing house. Sometimes this step is omitted, as the purchasing house (wholesale grocer) buys direct from the sugar broker. The retail grocer then buys from the wholesaler and the consumer finally from the retailer.

### MOLASSES.

The residue molasses from beet-sugar manufacture finds its way principally to the manufacture of molasses cattle food, passing through the sugar company's broker to the food manufacturing concern, then through the usual channels to the consumer. A portion, however, is sold for the production of alcohol.

### SUGAR CANE AND FEED.

Sugar cane is grown for the commercial preparation of sugar, principally in the southern portion of Louisiana and in the southeastern portion of Texas. It is also grown in the southern portions of Mississippi, Alabama, Florida, and Georgia for the preparation of cane sirup. It is stated, however, that a couple of sugar mills for the production of cane sugar will be in operation this fall in Florida. Up to about 1860 practically every plantation in the sugar belt of Louisiana had its own sugar mill. These were rather crude affairs, but produced sugar of fair quality and a high-grade molasses. The process of manufacture was known as the "open-kettle" process, and to-day we find a few of these mills still in existence, although somewhat improved over those formerly operated. The expense of manufacture was high and the extraction of sugar low. To-day most of these mills have been abandoned and larger factories have been built so as to handle more economically larger quantities of cane per day. In 1860 there were about 1,300 sugar houses, in 1890 only 350 working, and in 1911 not over 220. The acreage devoted to sugar cane a few years ago reached its minimum. It is now on the upward grade in Louisiana, due to the ravages of the boll weevil in cotton. The cane-sugar industry of Texas is also on the increase. In the other States it is practically at a standstill, except possibly in Florida, where there are indications of increasing the acreage.

The usual custom of marketing sugar cane in Louisiana and in Texas is as follows: A greater portion is grown by the sugar company and is harvested by it and made into sugar. A smaller portion is obtained by the sugar company from small planters at a stated price for the crop—that is, so much per acre for the cane. The freight charges here for transportation are always paid by the sugar company. A still smaller portion—but a portion that is gradually increasing—is grown by planters and sold to the mill at a price per ton of cane. The freight charges here are generally paid by the sugar company, although in a few cases half of the charges are paid by the sugar company and the other half by the planter. The price per ton is regulated by the New Orleans market price of 96° test sugar. For instance, with 96° test sugar selling at 4 cents a pound to-day, the price of hauling cane would be anywhere from 80 cents to \$1 per ton. In this latter arrangement, the cane is harvested by the planter and delivered on cars and weighed by the sugar factory and the weights kept there. In many cases, however, the planter also weighs his crop.

Sugar cane for the production of sirup in the eastern sections of the sugar belt is grown on much smaller plats and is generally worked up by the planter himself into sirup. There are a few cooperative associations of farmers where the cane is delivered to a central mill

and a price paid for it depending upon the amount of sirup that can be made from an average ton of cane during that year.

### CANE SUGAR.

On account of the immature condition of the sugar cane as grown in the southern part of Louisiana, it is hardly possible to produce profitably a white granulated sugar direct from the cane, there being at the present day only two factories that are equipped for its production. It is possible, however, to produce a light colored, nearly white, soft sugar which is variously known as "prime yellow clarified" or "soft grocery sugar." But by far the largest percentage of sugar produced is a brown sugar of  $96^{\circ}$  polarization, which is sold to the refining companies for the production of white granulated sugar.

The three grades mentioned above are produced as what might be termed "first sugars." There are always produced second sugars coming from the molasses from the first sugars, which are always brown in color and of somewhat lower polarization. These are often mixed with the first sugar or sold independently as molasses sugars and vary in polarization from  $88^{\circ}$  up to  $93^{\circ}$  and  $94^{\circ}$ . The molasses from these sugars is stored over the summer and a third crop often obtained. These third sugars are of still lower polarization and color, ranging from  $80^{\circ}$  to  $85^{\circ}$ .

The small production of white granulated sugar is generally sold direct for consumption to local grocers. The prime yellow clarified is many times sold by brokers who represent the sugar planter, principally in New Orleans, to the sugar refiners. However, some little goes through the brokers to a middle man, who then disposes of it to the final consumer. In New Orleans there is an association of brokers conducting what is known as the New Orleans Sugar & Rice Exchange. Here samples of the daily shipments are exhibited on tables, and the buyers can offer prices to the brokers for the product as per sample. A large proportion of the Louisiana crop and also Texas crop is sold over this exchange. The  $96^{\circ}$  test sugar is also offered for sale by the brokers and is bought up by the refiners to be melted, passed through char, reboiled, and recrystallized to granulated sugar. This granulated sugar is then stored by the refiners, shipped often to brokers, who store it, then to wholesale grocers, from there to local grocers, and then to the consumer. There is a small quantity of open-kettle sugar produced and sold on the market. This is generally of a grade inferior to prime yellow clarified, but much better than  $96^{\circ}$  sugar. A large proportion of it is bought for refining, but some shipments are made direct to candy and baker supplies companies.

### MARKETING OF OTHER CANE PRODUCTS.

As was stated before, the cane-sugar factories of Louisiana and Texas produce first, second, and third molasses. It is customary, however, to produce a second crop of sugar from the first molasses and in many cases a third crop of sugar from the second molasses. The residue here would be a third molasses, which finds a market principally in distilling for the production of alcohol, but is used in quantities as a mule food on the plantation and is sold for mixing with grain and other matter as a molasses cattle food. Often the



second molasses, and sometimes in quantity the first molasses, is sold by the broker representing the sugar manufacturer over the sugar exchange to brokers representing molasses canneries. The molasses is generally stored by these companies to be put up into cans for sale to the public through the wholesale and retail houses. The price obtained over the New Orleans market for cane molasses varies with the color and taste of the product, a light-colored and pleasant-tasting molasses receiving a much higher price than a light-colored and poor-tasting product and still higher than a dark-colored and poor-tasting product. The brokers charge the sugar planters a certain percentage for their sale, and it is quite customary for them to loan the planters money to help in the production of their crop for the coming year.

#### MARKETING OF CANE SIRUP IN THE EASTERN CANE DISTRICTS OF THE UNITED STATES.

In Mississippi, Georgia, Alabama, and Florida, as has been stated before, the manufacture of cane sirup is carried on principally by the farmer. The sirup is generally put up by the farmer in barrels and is sold by him to the canneries by sample. There are a few associations of farmers who ship their sirup to one point, have it graded, and then sell to the canneries from that point. From the canners of this product it passes through the usual channels of wholesale grocer, retail grocer, to consumer.

#### TOBACCO.

The production of tobacco in the United States may be differentiated broadly into two main types:

1. The so-called manufacturing and export types produced extensively in Kentucky and contiguous areas in Tennessee, Ohio, West Virginia, and Indiana, and also in North Carolina, Virginia, Maryland, and South Carolina.

2. The cigar types as produced principally in the Connecticut Valley, Pennsylvania, parts of Ohio and Wisconsin, and, to a more limited extent, in Florida, Alabama, and Texas.

The two types are quite sharply differentiated from a trade standpoint and move to market through entirely different channels. The cigar types are generally packed for storage or final shipment to the manufacturer in boxes or "cases" of about 300 pounds net weight each, while the manufacturing and export types are shipped and stored in hogsheads, ranging in weight from about 700 to 1,500 pounds net weight each. About 82 per cent of the total tobacco produced in the United States is of the manufacturing and export types packed in hogsheads.

#### MANUFACTURING AND EXPORT TYPES.

##### SALES MADE BY PRODUCERS.

Consignments on commission:

The Maryland grower packs his tobacco in hogsheads of about 700 pounds net weight. He ships these hogsheads to the Baltimore market, generally to the State warehouse consigned to a commission

merchant. The State inspector samples the hogshead as prescribed by law and delivers the sample to the commission merchant, who effects the sale to the exporter or manufacturer privately. The State makes no charge for inspection or storage to the producer, but exacts an outage fee from the buyer. The commission merchant makes a charge of \$1.50 per hogshead for selling, but he collects an excess of \$1 from the purchaser, which he turns over to the producer as payment for the hogshead itself. One of the Baltimore commission firms conducts a private inspection and storage house, but the terms and conditions are essentially the same as at the State warehouse.

In Kentucky and adjoining States west of the Alleghanies, a considerable but relatively small production of the crop is packed into hogsheads by the producers and consigned to commission merchants at Louisville or Cincinnati, for storage and sale either privately or at auction on the open "breaks." The sale is made from a sworn sample drawn by the official inspectors. The usual warehouse charge for this service is \$1.50 or \$2 per hogshead and 1 per cent commission to the seller and an outage fee of \$2 to the purchaser.

#### SALES TO LOCAL BUYERS FOR DELIVERY TO LOCAL SHIPPING POINT.

In the Kentucky and Tennessee "dark" districts a common method is for the local buyer to purchase tobacco loose from the wagon in the street or at the barn for delivery loose at the purchaser's near-by leaf house. With this method, of course, no selling charge is made.

#### SALES AT AUCTION.

In the States of Virginia, North Carolina, and South Carolina the almost universal first-hand method of selling is at auction on the local market. Warehouses are established for this purpose in most of the more important towns throughout the producing territory. The tobacco is graded and tied into hands by the grower, and is then packed loose into the wagon body and hauled to the warehouse, where the different grades are neatly piled on the warehouse floor. As the auctioneer passes from pile to pile, the entire lot of each purchase can be inspected by the buyers. Sales are held daily throughout the selling season, and the sale is made and the proceeds ready within a short time after the tobacco is placed on the warehouse floor. It is the buyer's duty to remove the tobacco from the sales warehouse to his leaf factory.

For his service the warehouseman collects a fee generally made of three items. There is a weighing fee of 10 cents per 100 pounds, an auction fee of 25 cents a pile, and a commission of  $2\frac{1}{2}$  per cent. This charge varies somewhat on the different markets, but generally differs only slightly from this, which is the maximum allowed by the North Carolina State law.

During the past few years this loose-leaf auction system on the warehouse floor has been rapidly spreading in the tobacco districts of Kentucky and adjoining States, particularly in the Burley districts. The sales are conducted on essentially the same lines as in the East, but the warehouse fees more commonly consist of but two

items—a weighing fee, which is generally 15 cents per 100 pounds, and a commission of 2 per cent.

At Owensboro, in the Green River district, tobacco is sold at auction from a sample taken from the wagon in the street. The charge of the auction house for this service is \$1 per load. The seller then delivers the tobacco to the leaf house of the purchaser.

Note has already been made of the consignment of hogshead tobacco by producers to warehousemen, who are also commission merchants, in such big centers as Louisville and Cincinnati for sale at auction. But the great bulk of the hogshead tobacco offered on these markets is for the account of dealers who have purchased the tobacco from the producers in the local market.

#### SALES MADE PRIOR TO HARVEST.

In the manufacturing and export districts bargaining for tobacco as it stands in the field before harvest is almost never resorted to.

#### DIRECT SALES TO CONSUMERS, INCLUDING MANUFACTURERS.

Almost no tobacco is sold in the raw leaf directly to consumers, but a large proportion is sold directly to the larger manufacturers and exporters, most of whom have their buying agents and leaf factories in the various market towns throughout the producing districts.

#### COOPERATIVE SELLING ORGANIZATIONS.

In recent years, particularly since 1905, growers' selling organizations have been established here and there throughout much of the producing territory, particularly in the West. In some instances these organizations have succeeded in pooling and controlling the sale of 50 per cent or more of the total production of an entire district. Generally these growers' organizations have established local receiving agencies where the pledged tobacco is graded and prized into hogsheads. Usually an advance is made through banks of about 50 per cent of the estimated value of the tobacco delivered. At the organization selling agencies the tobacco is offered for sale by sample. Usually the offerings have been made privately, but in some instances auction sales have been resorted to.

#### GRADES AND WEIGHTS—HOW AND BY WHOM DETERMINED.

The producer generally separates his tobacco more or less carefully into grades before sale or delivery. In some cases only 2 grades may be made, as leaf and lugs, while in others a more careful classification may result in from 6 to 10 grades. After delivery to the buyer or growers' organization considerable regrading and matching together of different lots may take place.

When the tobacco is marketed through a warehouse, the warehouse weights prevail. In private sales the buyer does the weighing, and when marketed through an organization the organization weights are usually accepted.

## BEGINNING AND END OF HEAVIEST SALES BY PRODUCERS.

The bulk of the crop in most of the tobacco districts leaves the producers' hands during the fall, winter, and spring months. In the Maryland district the crop is marketed principally during the following summer after it has grown, as it is not considered safe to prize it into hogsheads until it has passed through the spring sweat.

## STEPS IN MARKETING AFTER PRODUCT HAS LEFT PRODUCERS' HANDS.

The larger share of the crop is bought from the producer direct by manufacturers or exporters or through the intermediary warehouse agency. After being put into safe-keeping condition by artificial or natural ordering the tobacco is then put into storage, either private or public, for a period generally of about six months to two years until desired for manufacture.

In a number of cities there is a consolidation within the city of the warehouse interests engaged in the sale and storage of leaf tobacco for producers or dealers.

On the loose-leaf markets producers frequently bring in so much tobacco in the few days succeeding a good season for handling as to exceed the capacity of the buyers to take care of it, and temporary slumping of the price from this cause may result.

The principal auction markets for hogshead tobacco are Louisville, Ky., and Cincinnati, Ohio. For loose-leaf tobacco the principal auction markets are Lexington, Ky., Danville, Lynchburg, and South Boston, Va.; Winston-Salem, Wilson, Kinston, Greenville, Rocky Mount, and Durham, N. C.; and Mullins, Lake City, and Darlington, S. C.

Louisville and Cincinnati are also leading centers for the sale of hogshead tobacco from the sample privately, usually after it has passed out of producers' hands into those of dealers and speculators. Baltimore is an important center for the sale of hogshead tobacco privately, principally by commission merchants selling for producers to exporters. Clarksville, Tenn., and Richmond and Danville, Va., are also important centers for the sale of hogshead tobacco privately, principally by dealers and on commission. The sales are practically all made from official samples drawn from the hogshead. The hogsheads of tobacco on sale remain in storage, either private or public, perhaps for months or years awaiting sale or delivery.

## STORAGE AND TRANSPORTATION.

Tobacco is not generally stored by producers except when it is awaiting sale, principally on the Louisville, Cincinnati, or Baltimore markets consigned to commission merchants or warehousemen. This does not generally last more than a few months, and, except in the case of Maryland, tobacco on the Baltimore market is resorted to by producers to only a limited extent. The principal means of storage by producers is when the tobacco is in the hands of the growers' pooling organizations, when the tobacco may be stored for several months or a year or more.

Great quantities of tobacco are constantly in storage in the names of dealers and manufacturers (principally the latter). Generally a period of six months to two years elapses after the tobacco is sold by producers, immediately after the harvest and curing, before it is manufactured, and during this time it is left in private or public storage. The length of time tobacco may remain on storage in the hands of dealers and speculators is entirely problematical and would depend largely on market conditions, but would not generally be for more than a year or two. The more important storage centers for leaf tobacco are Louisville, Cincinnati, St. Louis, Richmond, Baltimore, Durham, and Danville.

Much of the western tobacco finds its way to market or final destination by means of water transportation. Several of the more important market and manufacturing centers, as Louisville, Cincinnati, St. Louis, Henderson, Owensboro, and Clarksville, are located directly on intercommunicating navigable streams.

A large proportion of the western tobacco that is exported reaches foreign markets by way of New Orleans. The three centers from which nearly all the exported tobacco leaves the country are New York, Baltimore, and New Orleans.

#### SUMMARY.

Market news on the farm in most tobacco districts is more generally limited to local conditions within the personal observation of the grower or transfer by word of mouth. Where there are cooperative selling organizations the conditions for the entire districts are better understood, at least by the leaders.

The manufacturers and other buying interests with agents scattered over practically the entire producing territory are in a position to acquire very accurate information as to the probable supply.

The loose-leaf auction system of selling undoubtedly offers a very convenient method of turning the crop into cash at the approximate going price on almost any business day of the year, but it is quite an expensive method of selling.

The cooperative community selling plan seems to be an economical and fundamentally sound plan of selling, but serious drawbacks are found in the difficulty of securing competent managers, as it takes special experience in grading and handling tobacco of a sort not usually possessed by the average grower. Considerable initial expense is necessary for a suitable drying and prizing plant. A further difficulty lies in the fact that a large proportion of the crop is produced by croppers and others of little financial strength. They are generally badly in need of money by the time the crop is ready for market and need to realize for the full value of the crop at once, or at least think they do. Through the cooperative agency generally not more than 50 or 60 per cent of the value is advanced at the time of delivery to the organization's agents, and there is then some uncertainty as to the amount and time of payment for the balance.

#### CIGAR TYPES.

In the cigar tobacco districts the larger portion of the crop is bought privately. Packers send their agents out inspecting the tobacco at the farmers' barns and bargain for it either at a round

price per pound or at so much for each of the two or three grades into which the grower may roughly divide it. A considerable quantity of cigar-leaf tobacco is sold to the packer prior to harvesting. The grower generally wraps the tobacco into bundles of about 30 pounds weight each and delivers at the buyer's packing house, where it is more carefully graded, sweated, and packed into cases of about 300 pounds net weight each. The principal time of delivery by the growers is during the fall months as soon as the growers can get it ready after it is cured.

The packers grade and sweat the tobacco during the winter and spring months, and it is not usually put on sale to the manufacturers until about a year from the time it was produced.

Packing houses are located in the convenient towns and cities throughout the producing districts, but there is generally some one or two principal centers where are located the principal offices of the leading dealers in the type of tobacco produced in that district. In many instances the packers themselves are large growers of cigar leaf.

The great market centers for all types of cigar leaf are New York and Philadelphia. Important local market centers for the types of tobacco produced within the particular districts are Hartford, Conn.; Lancaster, Pa.; Dayton, Ohio; and Janesville and Edgerton, Wis.

When the tobacco is placed on sale by the dealer or broker, samples are drawn from the cases which are kept on hand at the salesrooms and sales are made from these samples. Generally the sale is made on the basis of market weight: that is, the net weight of the case at the time the tobacco was packed, but actual weight may be prescribed by agreement.

Many of the smaller cigar manufacturers buy only a limited supply of leaf at a time, and the dealers keep on hand the leaf to supply these demands, in many instances granting time for payment.

At Cincinnati, Ohio, auction "breaks" of cigar leaf are regularly held. The cases are opened and samples drawn and sealed in the regular way about as for burley tobacco on that market, and the sale is made at auction to the highest bidder, while the sample lies on the open bulk.

Sales of cigar leaf on the Cincinnati breaks have generally ranged from about 5,000 to 10,000 cases annually.

## TRUCK CROPS.

### CABBAGE.

Cabbage, like Irish potatoes, must be considered from the standpoint of a perishable truck crop and from the standpoint of a farm crop. As a truck crop cabbage is very extensively grown, but is almost entirely handled on a consignment-shipping basis. It is seldom or never bought in the field unless the selling agency maintains a representative in the field who buys and ships. The only exception is to be found in the association already spoken of in the eastern shore of Virginia, where cabbage, as well as Irish and sweet potatoes, is handled under cooperative arrangements. At the present time there are no safeguards to this industry. There is no provision for

using a surplus when prices are low, and as a result losses are not infrequent.

With the farm crop, which is distributed widely throughout the Northern States from Colorado to Maine, the crop is handled quite differently. In a few instances growers have provided themselves with storehouses in which to hold the crop, but as a rule it is marketed direct from the field, loaded in cars, and shipped to consuming points chiefly by local buyers, who in some instances are provided with large warehouses in which a portion of the crop is stored and held for later distribution. The result is that the dealer rather than the grower reaps the reward of any improvement in the market. In other localities the crop is marketed directly from the field at kraut factories. This constitutes another type of local sale frequently made within the limits of the wagon haul, but sometimes the crop is loaded and shipped short distances to the kraut factories.

The needs in handling this crop are greater storage facilities by the growers themselves, either through independent or cooperative effort or better distribution of the crop, in order that it may be made more stable in character. The great drawback at the present time to cabbage as a farm crop is its wide fluctuation in price, frequently ranging from as high as \$30 a ton to as low as \$2 a ton. The uncertainty of such a crop renders it an undesirable one. Much of this fluctuation could, it is believed, be overcome by cooperative growing and handling methods.

#### CAULIFLOWER.

The cauliflower crop is one of the smaller of the truck crops. Its production is confined to comparatively restricted areas, and in all of these areas effective cooperative growing and marketing associations are maintained. In the Long Island region and in the region about Buffalo, N. Y., as well as in southern California, the crop is handled through cooperative agencies. The distribution is one of the chief activities of the organization. The better distribution, which has resulted from cooperation, has been very effective in preventing losses to growers.

#### CELERY.

The celery crop, so far as production is concerned, is comparable with the cauliflower crop. Its production is confined to more or less restricted and special areas, but the methods of marketing have not been modified to the same degree. A portion of the Florida crop is handled through cooperation; a large percentage of it, however, is shipped on consignment, while the crops grown in New York, Pennsylvania, and Michigan are largely sold to dealers, some of whom place a considerable portion of it in storage either near the field of production or in the city where it is to be consumed. This feature of the industry has developed very rapidly within the last three years and has demonstrated the necessity of improved methods of cultivation and field protection. Celery is grown on a contract basis to a slight extent, but most of the crops are produced at the growers' risk. The only factor of cooperation which has entered into the production of celery has been cooperation on a growing basis between the grower and the city distributor.

### CUCUMBERS.

Cucumbers which are grown in forcing houses are usually sold to dealers on the local markets. These are distributed through a narrow zone as seasonal requirements may demand. There is no uniform or permanent system of distributing the crop except through local channels.

The field crop of cucumbers, however, is grown on a contract basis and on the plan of other truck crops where the producer harvests, packs, and consigns his pack. When grown on a contract basis they are usually delivered to a local salting station, where the grower receives a stated price per ton for certain grades of fruit.

Aside from the contract system it is likely that cucumbers will ever need to be handled on a consignment basis, as the product is of such a nature that few markets outside of our largest cities can handle cucumbers in carload lots. One factor, however, which may overcome this, which in late years has been attracting the attention of some of the most progressive railway administrators, is that of shipping mixed cars. Through the efforts of cooperative associations communities producing a variety of truck crops could take advantage of the small markets, which are unable to handle solid cars of any particular commodity, by loading mixed cars upon order. This system of shipment can be much more satisfactorily managed through cooperative organizations than by independent growers.

### MUSKMELONS.

The production of muskmelons is widely scattered over the United States, and within the last few years decided improvements in the marketing of the crop have been effected through cooperative organizations. The grade of the product has been given more attention, methods of packing have been improved and partially standardized, some precooling has been carried on, and as a result the quality and the condition of the melons as they reach the markets have been greatly improved. Better distribution has been effected with the corresponding greater stability of the industry. As this crop has no uses except as a fresh commodity, the importance of precooling, shipment under refrigeration, careful grading, and uniform pack are very important. The shipping problem with muskmelons, however, goes back of field and market methods to the character of the seed and the protection given to the growing crop in the field.

### ONIONS.

The sale of onions is effected in much the same manner as that of potatoes. They are purchased by local dealers or sold on consignment. This crop, like the potato crop, is stored to a considerable extent; probably a larger percentage of the onion crop is placed in warehouses than of the potato crop. The storage system has a tendency to level the prices, prevent gluts, and to guarantee a more stable market and consequently better average returns to the grower. The fault of this system is largely that of all independent activities,



A grower is the competitor of his neighbor, a fact which is taken advantage of by the buyer as well as the marketman.

Cooperation in the sale and distribution of the onion crop would be quite as effective as in the case of other truck crops.

#### SWEET POTATOES.

The territory over which the sweet potato can be produced is very great, but owing to lack of information regarding varieties demanded by the markets and storage methods the consumption of the crop has been limited to a comparatively narrow zone and a relatively short period of time. Improvement of storage methods, with suitable varieties and adequate transportation, should put the sweet potato on quite as stable a basis as the Irish potato crop of the North. It is believed, however, that a cooperative method of distribution, so as to prevent gluts and depression of markets, must be as carefully observed with sweet potatoes as with other truck crops.

#### TOMATOES.

Tomatoes are handled both as a truck crop and as a farm crop for cannery purposes. Truck-crop tomatoes are practically all grown for immediate consumption, and in some of the extensive growing areas, notably in Florida, Mississippi, and other Southern States, the crop is handled through cooperative growing and marketing associations. The advantage above noted of better distribution is the chief advantage obtained by cooperative action.

Tomatoes as a farm crop for canning purposes are usually grown under contract, the contractor furnishing the seed or the plants from which the crop is to be grown and paying the producer a stipulated price per ton for the crop delivered at the factory. In addition to these methods a very considerable percentage of the crop intended for immediate consumption is shipped on consignment to the large consuming and distributing centers. This crop should be safeguarded to a greater extent than it is at the present time by the use of home canners to care for that portion of the crop which can not be marketed at a profit for immediate consumption.

This is also true of sweet potatoes, onions, and cabbage. Unless special varieties are produced and handled so as thoroughly to protect them from injury and from disease through the growing and storage periods satisfactory results can not be secured. The great problems in connection with the handling of truck crops are more direct methods of reaching the consumer so as to eliminate both time and expense. Less friction in distribution will cheapen the product to the consumer without lessening the return to the grower, stimulate a greater consumption, increase the total product consumed, and consequently increase the business of the grower.

Some products that fall under the class of truck crops may be handled so that they change ownership three times between the producer and the consumer and in addition to this carry a charge for commission, drayage, and transportation and sometimes also storage and refrigeration charges. The ultimate consumer must pay for all of these "conveniences" in the final cost of the article.

## WOOL.

Wool is quite often consigned by the producer to some commission house in Chicago, Boston, or Philadelphia. These consignments are usually only from the large producers. The clip is consigned at a certain agreed price with a privilege of a "come back" on the part of the buyer if the price is not realized in the sale. The producer can secure his money practically as soon as the shipment is made and does not have to wait for an actual sale to take place. All through the Eastern States and the corn belt the local dealer handles a considerable portion of the wool. In many cases it is handled by two sets of middlemen before it reaches the manufacturer. A local dealer purchases the wool from the producer and sells it to the commission house in some city. They in turn sell to the mills. In the West there are places of auction, where the producers sell their wool to the highest of the bidders present, who represent commission houses or woolen mills. In Iowa and other neighboring States the woolen mills have their representatives buy direct from the producer on the farm or ranch. They pay, according to their own report, 1 cent per pound more than the commission houses for the same grade of wool. In Tennessee a lamb and wool club, composed of producers, sells the wool to a blanket mill at Springfield, Tenn. In Minnesota a woolgrowers' association manufactures its own wool and the members receive a higher price for their product than they could get on the market.

The classification and grading of wool is fairly complete among the larger dealers, but the small local dealers are, as a rule, unacquainted with the system. There is a great deal of complaint among the producers in the eastern and central parts of this country, because these dealers pay so little attention to quality and condition of the fleece. The State of Missouri is more fortunate in this respect. The dealers here are, as a rule, familiar with the different grades and buy the wool according to quality and condition. In Tennessee some wool is graded by the Goodlettsville Wool and Lamb Club, but, with these exceptions, the fleeces are not graded until after they leave the hands of the producer. The largest sales of wool by the producer are made during the months of March to June, inclusive.

The large commission houses are located at Boston, Philadelphia, and Chicago. They have buyers who are better acquainted with market classification and values, and their salesmen are also experts in their field. The wool is graded before it leaves their hands. The buyers who represent the mills are also usually technical experts and buy more intelligently than the local dealers.

The expense of marketing after the wool leaves the producer's hands is confined to haulage, freight, and storage. These expenses vary greatly under different conditions.

The practice of storing wool by producers is extremely limited. The conditions for proper storage of wool are rarely found upon the farm, and consequently the product is usually marketed shortly after shearing. Storage by the middleman is more prevalent. The larger storage houses of America are located in Chicago, Boston, Philadelphia, and New York. A considerable portion of the clip of the country is stored in these cities. The length of the period of

storage depends upon market conditions. It is obvious, however, that at least enough wool must be stored to supply the mills until the next clip is available.

Among the more prosperous farmers the general trend of market prices of the different grades of wool is ascertained from the reports in the farm papers. Where the local dealer is unfamiliar with the classification or for some other reason does not follow it in making his purchases the farmer's knowledge of market prices is of little benefit unless he can find some other way of marketing his wool. The direct sale of wool to the mills as practiced in Iowa, the cooperation of the woolgrowers, as has already taken place in Minnesota and Tennessee, and the education of the local dealers, as in effect in Missouri, are elements of success in marketing on the farm, and doubtless these methods could be employed in many other States and would prove equally beneficial to the producer.

## REPORTS OF ASSOCIATIONS AND AGENCIES.

### DESCRIPTIONS OF PRACTICAL MANAGEMENT.

In the preparation of this report it was assumed that descriptions of the systems of marketing adopted by prominent and successful associations for marketing farm products would, perhaps, constitute the most instructive part of the report. Requests were sent by mail to a large number of the associations, and, subsequently, in order that a large number of reports might be contributed in time for inclusion in this report, the telegraph service was freely used.

As a result of endeavors, and of the disposition on the part of associations to describe their systems for publication, as requested, reports were contributed by 66 associations from all parts of the country. These associations are mostly engaged in marketing fruits and vegetables, but some other products are represented.

The representation for California, in which State cooperative marketing has had greater diffusion than in any other part of the country, is large and extremely interesting; there is a good representation also of the Atlantic coast extending from Florida to Maine. Associations along this coast are marketing farm products with a high degree of success and the systems under which they are organized and do business present much instructive information.

#### **THORSBY FRUIT & TRUCK GROWERS' ASSOCIATION, THORSBY, ALA.**

By P. K. VILLADSEN, Secretary-Manager.

The Thorsby Fruit & Truck Growers' Association consigns its products and pays 10 per cent commission on gross sales. This system, or no system, as it should properly be called, is the only one we can use in disposing of our products, which are mostly strawberries. Not only are the shippers at the mercy of commission merchants, but it is impossible to get an even distribution; and it seems that the tillers of the soil never will come together and find a practical solution of this and make use of it.

The Government is doing everything to educate the farmer in the way of making the soil productive, and it is reasonable to expect the Government to take another step forward and help the farmer to get his products distributed in a business-like way.

#### **YUMA VALLEY PRODUCE GROWERS' ASSOCIATION, YUMA, ARIZ.**

By ROY HANSBERGER, Secretary.

This organization is composed of farmers who have incorporated to do a general marketing business. About the only product we have handled up to this time is alfalfa seed. For handling this we have rented a warehouse and installed a seed recleaner.

The different members bring in their seed, the same is weighed in, and they are given a receipt for so many pounds uncleaned. The seed is run through a recleaner and made into uniform grades.

We have so far established three grades, the first of which is excellent and is as free as possible from any foreign seeds whatever; No. 2 grade is slightly discolored and may contain foreign seeds that are of the same weight as the alfalfa seed and can not be blown out, such as sour clover seed.

The samples of the three different grades are submitted to the big seed houses and seed brokers at a certain price per pound, f. o. b. Yuma, Ariz. If the price is acceptable to them the seed is sent on "shipper's order, bill of lading." Some seed is sold direct to the farmers themselves in the different communities, principally in small lots, from 50 pounds to 1 ton.

All seed is pooled, and at the end of the season every member gets the same price per pound for his seed as was paid for seed of the same grades. Only the actual expenses of recleaning and handling the seed are charged the growers, and each season's business is settled separately. In time we will handle all produce in this manner.

#### **JUDSONIA FRUIT AND VEGETABLE GROWERS' ASSOCIATION, JUDSONIA, ARK.**

By A. M. KITTLER, Sales Manager.

The Judsonia Fruit & Vegetable Growers' Association, of Judsonia, Ark., handles for its members car lots of potatoes, tomatoes, and strawberries; the latter is the principal crop. The bearing acreage in strawberries in 1913 is 2,200 acres, and the yield is now estimated at about 300 cars.

This association handled for its members in 1912, which was a short crop, 206 cars; and in the average year of 1911, 277 cars of strawberries were shipped, which netted the growers \$202,000.

The strawberry industry in the section of Arkansas where the association is located started in 1880, at which time all shipments were made by express, and growers shipped individually to different commission houses and different markets. The express companies handled the berries in a rough manner, and the railroad companies would not give satisfactory train service that would permit the placing of the berries on the St. Louis market on time or make train connections with points beyond. This association was formed to

correct these abuses and to aid the producer in marketing his products.

The unregulated individual express shipments caused the markets to be overstocked, and the prevailing low prices discouraged growers. In 1890 the association decided to ship all berries in refrigerator cars, and to distribute these cars at different cities, in order to avoid glutted markets and to maintain prices. Growers not belonging to the association shipped by express to those cities, however, on days when the association did not ship, and realized better prices owing to the bare condition of the markets. To remedy this condition the plan of making shipments on consignment was abandoned and all cars were sold at public auction.

In order to sell successfully at auction a large number of buyers is necessary, as otherwise they could regulate their bids before the auction occurred. With an increased output and the same number of buyers on the ground it is often necessary for the sales agent of the association to make sales.

Cars are sometimes consigned; but this is not the general practice; 263 of the 277 cars shipped in 1911 were sold f. o. b.; and in 1910 only 12 cars out of the total number of 206 shipped were consigned.

Selling f. o. b. seems to be the most profitable to the grower, as he has no losses and receives the proceeds on the day of sale. When goods are consigned, it is necessary to wait at least two or three weeks, and the proceeds are uncertain. Consigned cars bring poor returns, and only few are paying fairly well. In order to continue the success of f. o. b. sales it is necessary that the standard be maintained by rigid inspection.

This association employs four inspectors during the shipping season, and all goods are graded and examined closely before shipment. The growers are paid according to the grades shipped.

A charge of 3 per cent on the gross sales is made to the growers, which amount covers all expenses of the association and leaves a surplus on hand. Our paid-in capital is \$1,500, and the accumulated surplus is \$4,500, making a cash working capital of \$6,000. The authorized capital is \$10,000, of which \$7,500 is subscribed by the 300 members of the association. Only one share of stock can be owned by each member, and he must be a fruit grower.

The association buys box material and other supplies for its members.

#### CALIFORNIA FARMERS' UNION (INC.), FRESNO, CAL.

By H. G. JOHNSON, General Manager.

The California Farmers' Union (Inc.) is a cooperative selling association for the producers of raisins and other dried fruits, and it sells through the regular business channels, giving its members the benefit of one middleman's profit. The people put up their packing houses with their individual capital. Their goods are packed at cost with a reasonable additional charge to cover interest on the investment. The goods are all pooled and sold as for one man.

The association does not consign on commission, but sells f. o. b. shipping point to the different markets of the world through regular

brokers in different markets. Collections are made by attaching draft to bill of lading and shipping to our own order.

Very few sales are made to local buyers, but some are made to buyers in San Francisco and Los Angeles on the same terms as those to eastern and foreign markets.

Nothing but dried fruits are handled, so this organization does no business through the auctions of the large cities.

A great many selling contracts are made prior to harvesting, due to the market conditions, for the eastern buyers prepare for their fall trade during the summer months. Of course these sales are made more or less on a speculative proposition, and the price is not actually fixed until the sale is consummated.

Business transacted direct with consumers is very small, hardly worth mentioning; dealing is with the wholesale trade almost exclusively.

We do not sell to retailers. We tried that in a small way and found it unsatisfactory, as most of our products have to cross the continent, and the retailer would have the disadvantage of local or less-than-carload freight rates. Goods must move in car lots where the sellers and buyers are so far apart.

Our grades and weights are established by the Dried Fruit Association of California. Any disputes on arrival of goods at the markets are settled by arbitration.

Our harvesting season is from about the 1st of August until the 15th of September, but our sales are made during the entire year.

We have but little difficulties to contend with except what ordinarily appear in general business transactions.

The essential elements of success in our particular line are that we grow, manufacture, pack, and sell our own products, and, as already stated, we eliminate one middleman's profit.

#### CALIFORNIA FRUIT GROWERS' EXCHANGE.

By G. HAROLD POWELL, General Manager.

The California orange and lemon crop equals 50,000 carloads, or about 20,000,000 boxes. There are between 10,000 and 12,000 growers engaged in the culture of the fruit. Four-fifths of the growers are organized into cooperative associations, more than 60 per cent of which are federated into the California Fruit Growers' Exchange.

The California Fruit Growers' Exchange is an organization which acts as a clearing house in providing the facilities through which 6,500 growers distribute and market their fruit. There are three foundation stones in the exchange systems—the local associations of growers, the district exchanges, and the central exchange. The local associations, the district exchanges, and the central or California Fruit Growers' Exchange are organized and managed by the growers on a nonprofit cooperative basis, each of them operating at cost, and each distributing the entire net proceeds to the growers after operating expenses are deducted.

#### THE LOCAL EXCHANGE.

The California Fruit Growers' Exchange comprises 115 local associations, each of which has from 40 to 200 members. The growers

usually organize as a corporation without profit, under the laws of California, issuing stock to each member in proportion to his bearing acreage, to the number of boxes he ships, or in equal amounts to each grower. The association assembles the fruit in a packing house, and there grades, pools, packs, and prepares it for shipment. The associations are managed by a board of directors through a manager and are conducted exclusively for the benefit of the growers. They declare no dividends and accumulate no profits. The fruit is pooled each month, or in a shorter or longer period, each grower receiving his proportion of the proceeds received for each grade shipped during the pool. Many of the associations pick the fruit, and some of them prune and fumigate the trees for the members. Each association has brands for each grade, and when a carload is ready for shipment it is marketed through the district exchange, of which the association is a member, through the agents and facilities provided by the California Fruit Growers' Exchange.

#### THE DISTRICT EXCHANGE.

There are 17 district exchanges. These exchanges are corporations without profit. There may be one or more district exchanges in a community, depending upon the number of local associations and other local conditions. The district exchange acts as a clearing house in marketing the fruit for the associations through the California Fruit Growers' Exchange and acts as a medium through which most of the business relations between the exchange and the local associations are handled. The district exchange orders cars and sees that they are placed by the railroad at the various association packing houses; keeps a record of the cars shipped by each association, with their destinations; informs itself, through the California Fruit Growers' Exchange, of all phases of the citrus marketing business; places the information before the associations; receives the returns for the fruit through the central exchange and returns the proceeds to the associations.

#### THE CENTRAL EXCHANGE.

The California Fruit Growers' Exchange is a nonprofit corporation under the laws of California. It is formed by 17 district exchanges, with a paid-in capital stock of \$17,000. It is managed by a board of 17 directors through a general manager, one director representing each district exchange. The function of the California Fruit Growers' Exchange is to furnish marketing facilities for the district exchanges at a pro rata share of the cost. The exchange places bonded agents in the principal markets of the United States and Canada, defines the duties of the agents, and exercises supervision over them. It gathers information through them of conditions in each market, receives telegraphic advices of the sale of each car and furnishes the information every day in bulletin form to the local associations. The exchange business is on a cash basis; it makes prompt accounting of returns to the growers through the district exchanges; it takes care of litigation that arises in connection with the marketing of the fruit; handles all claims; conducts an extensive advertising campaign to increase the demand for citrus fruit;

develops new markets and performs such other functions as are set forth in the contract between the central exchange and the district exchanges. The central exchange levies an assessment against each district exchange for a pro rata share of the expense on the basis of the number of boxes shipped. It declares no dividends. It does not buy or sell fruit or any other commodity, and exercises no control either directly or indirectly over sale or purchase. Its function is to provide facilities for the distribution and marketing of the fruit for those shippers who desire such facilities. Under the exchange system every shipper reserves the right to regulate and control his own shipments: to develop his own brands of fruit; to use his own judgment as to when and in what amount it shall be shipped, to what markets it shall be shipped, and the price he is willing to receive, reserving the right of free competition with all other shippers, including the members of the same organization, uncontrolled by any one. The agent in the market acts directly under the order of the shipper, who determines the prices at which each car shall be sold outside of the auction markets, and all other matters connected with its distribution, the California Fruit Growers' Exchange acting as the medium through which orders pass from the agent to the shipper, but never selling a car or determining the price at which the fruit shall be sold.

The exchange is a democratic organization; the growers exercise control over all matters. Membership in the exchange is voluntary; a grower may withdraw from an association at the end of a year; an association may withdraw from a district exchange, and a district exchange may withdraw from the central exchange; these relations being set forth in the various contracts that hold the members together. There is no attempt on the part of the central exchange to regulate shipments, to eliminate competition, divide the territory or business or to influence prices. In this connection its functions are to keep the associations informed daily regarding the shipments from the State; the general movement of exchange cars, the general conditions of the different marketing points; the prices at which the exchange fruit is sold; and in furnishing such other information as will allow the growers and shippers through their association and district exchanges to decide the questions of distribution and marketing for themselves.

One-third of the entire shipments are sold at public auction, the remainder through unrestricted private competition. There is no uniformity in price in the different brands, because the fruit in each section, on account of soil and other local differences, has an individuality of its own, and every brand sells on its own merits.

The exchange is organized into several divisions: Sales, legal, traffic, advertising, insurance, and mutual protection, and a supply department which furnishes the materials used in the packing houses and on the ranches at cost to the members. The exchange does not consign fruit. It is shipped on order; sold f. o. b.; or sold "delivered, subject to usual terms." The exchange maintains district managers in all of the important cities of the United States and Canada. These employees are exclusively salaried agents engaged only in the sale of fruit, in the development of markets, and in handling the local business problems of the exchange.



## CALIFORNIA VEGETABLE UNION, LOS ANGELES, CAL.

By THOMAS O'NEILL, General Manager.

The California Vegetable Union, of Los Angeles, Cal., is incorporated under the laws of that State, with a capital stock of \$100,000, and is engaged in the business of packing, shipping, and marketing California vegetables.

The principal vegetables shipped in straight car lots are celery, tomatoes, cauliflower, lettuce, cabbage, and potatoes; while beets, turnips, carrots, and other vegetables are shipped in mixed car lots. Shipments are made to markets throughout the United States and Canada, and sales are made f. o. b. cars California, the buyer being given the privilege to inspect the goods on arrival and accept them only if up to the standard and quality sold. Few shipments are rejected by buyers, which is due to the extreme care exercised in selecting, packing, and shipping the products, and to the fact that sales are made only to reliable firms.

The field operations of this corporation are under the direction of experienced men who direct the work of selecting only perfect vegetables, and pack them either in the field or at the packing houses of the union. Shipments are made under refrigeration, except potatoes and some consignments for near-by points.

The shipping season for tomatoes commences about the middle of September and ends December 15. Car-lot shipments are made to important markets throughout the United States, including Atlantic coast points. Celery and cauliflower are marketed from the latter part of October to March; lettuce from October to May; cabbage from February to June; potatoes from June to August.

The vegetables intended for shipment by this corporation are to be planted only in the most desirable sections, and the questions of soil, location, climatic condition, and water supply are carefully considered; otherwise it would be impossible to produce the quality of vegetables suitable for shipping long distances. The various crops are planted with a view to having portions of each mature from time to time during the shipping season. As they mature they are carefully harvested and sorted, and only products perfect in condition, size, and appearance are packed for shipment. It is an axiom with this corporation that California vegetables perfect as to condition and quality will carry across the continent if given proper attention en route; but the reverse is equally true, and vegetables showing only the slightest defect when shipped, will invariably spoil when subjected to the severe test involved in being carried great distances.

The prices of our vegetables at points of origin are usually as low as those received for the same varieties raised in other vegetable-producing sections of the United States, and in many instances they are lower; but on account of heavy freight and refrigeration charges resulting from long hauls, the cost at destination is necessarily higher than products raised locally. The selling price at destination is still further increased by the addition of jobbers' and retailers' profits.

CALIFORNIA WALNUT GROWERS' ASSOCIATION, LOS ANGELES,  
CAL.

By C. C. TEAGUE, President.

The California Walnut Growers' Association is a cooperative corporation, formed under the laws of California, the members of which are the local associations of that State.

This association has no capital stock and its business is not carried on for profit. Any person or number of persons or associations engaged in the business of growing walnuts may, in addition to the original incorporators, become members of it.

Each member is entitled to cast one vote for each 100 tons, or major portion thereof, of walnuts which the association handles for him, and no member has less than one vote.

Whenever it is necessary to raise money to enable the association properly to carry on its business, the amount is apportioned to and contributed by its members according to the tonnage basis, and the rights and interests of the members in the property of the association are also determined on the tonnage basis.

The officers consists of a president, a vice president, a secretary-treasurer, and 11 directors.

In the early history of the walnut industry in California the grower who produced less than a car of walnuts was compelled to accept prices offered by local buyers, which were frequently near the cost of production. The result of this condition was disastrous to the grower, and it became apparent that organization must be effected, and accordingly local cooperative associations were formed.

The members of these associations were usually the growers adjacent to some railroad shipping point and close enough to this shipping point so that the walnuts grown by the members could be delivered by wagons to the warehouse. These associations undertook to pool the walnuts belonging to its grower members, to grade them into proper grades, and to bleach them and ship them in carload lots to eastern, southern, and northern markets.

The reason that the nuts have to be bleached is that frequently they fall to the ground in the husk which surrounds the shell. This husk stains the shell, so that it is absolutely necessary to bleach it so that it will have a marketable appearance.

These local associations also undertook to sell all of the walnuts belonging to their members. The walnuts of each individual lost their identity in general pools, and simply an account was made of nuts delivered and the way that they graded, the proceeds of sale of which was returned to the grower. It became the practice to sell these walnuts through local brokers. The local association entered into what was termed "brokers' contracts," which provided that the broker was to solicit conditional orders in the markets of the country and within a certain length of time after the local associations had named prices was to file confirmed orders for the walnuts that the broker undertook to handle. When the nuts began to move, the broker accepted and paid for them f. o. b. the cars at shipping points, assuming all responsibility for acceptance by the trade to whom they were sold. For this service he received a brokerage ranging from 5

to 6 per cent. Under this system there were finally built up, in the various walnut districts of California, some 20 associations, all doing business practically along the same lines.

After the business had been handled in this way for some years it became evident that there was a necessity for a closer union, and accordingly an organization was formed which really had no legal status, but was termed "The Executive Committee of the Walnut Associations of California." Each association was entitled to send as many representatives to the executive committee meetings as it saw fit, their voting power being one vote for each 10 tons, or major portion of 10 tons, shipped during the preceding season. This executive committee met several times during the season and undertook to purchase the sacks used by all of the members of the associations. It also met shortly before the shipping season of walnuts began and considered the crop conditions at home and abroad, business conditions of the country, and the price which, in the judgment of the executive committee, the various associations would be warranted in asking for their crop.

There was no agreement between these associations to make a universal price, and the ideas of the various associations were so wide and varied that it frequently resulted in disastrous competitive conditions, so much so that the markets of the country were demoralized and prices so uncertain that jobbers did not buy at any price. The result was that many of the nuts did not go into consumption and remained in the producers' hands. A stable price is absolutely necessary to move walnuts, as in a large percentage of instances a jobber does not use more than one car of nuts, and when he has bought that he has his entire season's supply. It therefore became apparent that if the industry was to endure on a basis profitable to the grower a better form of organization would have to be effected. Accordingly committees were appointed, and after two or three years of work a form of organization was finally agreed upon which resulted in the formation of the "California Walnut Growers' Association."

Each local association entered into an agreement with the California Walnut Growers' Association for the period of five years, by the terms of which the walnuts grown by each association are sold and marketed for them, and each association has the privilege of withdrawing from the contract on 30 days' notice at the end of any year. By the terms of this contract the California Walnut Growers' Association, which is hereafter referred to as the "central body," is constituted the sales agent of all local associations.

The central body has made uniform rules of grading and bleaching, under which each association must grade its walnuts over a circular screen the mesh of which is 1 inch in diameter. All walnuts passing through this screen are termed "No. 2," and all that pass over it are "No. 1." These nuts are entitled to be shipped under the California Walnut Growers' Association brand if they are free from stains and blemishes, and if the "crack" of these nuts is of the percentage required; in other words, if these nuts are as good as the average output from California, which ranges from 85 per cent to 95 per cent good meats.

The net-weight plan of selling, which has met with great favor among the trade, is also adopted by the central body. The old plan was to sell gross for net; in other words, to charge walnut prices for the sacks, which was unjust to the consumer and the dealer.

The future policy of the central body in respect to its method of selling has not been definitely determined, but for the first season the old system of selling through local brokers was continued along practically the same lines as were formerly pursued by the local associations heretofore described.

The effect of organization has been to put this industry on a more profitable basis, which has so encouraged the planting of walnut groves that it is quite probable that within a few years the Pacific coast will be supplying all the walnuts consumed in the United States. A better article has been given the consumer, but the improvement in quality has not increased the retail price, and the speculator who formerly prospered on the labors of the walnut growers has been eliminated.

### **RANDOLPH FRUIT CO., LOS ANGELES, CAL.**

By FIELD SHERMAN, Traffic Manager.

The Randolph Fruit Co. does not own or buy any fruit, but operates merely as a marketing agency.

The growers either make arrangements for picking their own fruit and delivering it to our packing houses or we pick and handle same for the growers at actual cost, furnishing picking boxes.

This company either builds or leases the packing houses and furnishes all the equipment necessary for the washing, grading, sizing, and packing of the fruit, supplying the labor and power necessary, and all materials used, such as packing boxes, wrapping paper, and labels. We also load the cars and furnish strips for bracing each load.

In washing, grading, sorting, and sizing each grower's fruit is kept separate, as in many cases a grower does not have enough to make a carload and his fruit must either be pooled on a "poundage" basis or kept separate in packed boxes. For returns each grower's fruit is marketed separately. The fruit is graded in three classes—fancy, choice, and standard; occasionally other grades are used, known as extra fancy and extra choice. The fruit is sorted according to size, the oranges ranging from 80's to 324's (meaning 80 oranges to 324 oranges to a packed box), the lemons from 210's to 520's, and the grapefruit from 48's to 126's. Lemons are sometimes stored in packing houses from 30 to 90 days for curing purposes.

Manifests and bills of lading covering all cars loaded and forwarded from the various packing houses are mailed to the general offices of the Randolph Fruit Co., in Los Angeles, where a full record of each car is entered on a card, including the car number, point where loaded, date loaded, destination, route, whether same is under ventilation or refrigeration, and description of brands, grades, and sizes of the fruit in the car. These cards are given consecutive numbers and are filed in a case according to the respective destinations of the cars.

Movements of the car in transit and disposition of its contents at market are traced through telegrams, exchanges between the head office and the various agencies in the East or in Canada, and this information is also entered on the cards. In this way a complete record of each car is kept from the time it leaves the packing house until it is sold. From the manifests received from the various packing houses each day a "size list" is made, which contains a record similar to that placed on the card above referred to. This "size list" covers one or two sheets and shows a complete record of all cars forwarded from all packing houses each day. These "size lists" are mailed daily to the 100 or more selling agencies and brokers which the company maintains throughout the United States and Canada. In this way they are kept informed daily of all the cars rolling and what each car contains.

All of our cars are termed "tramp" cars, except those which contain shipments sold on f. o. b. orders. By means of liberal diversion privileges furnished by carriers, these "tramp" cars can be sent from one market to another, with no additional charge, or, at the most, a very small additional fee for the diversion. This diversion privilege is granted at all markets in the United States, except those in the Southeast and Northwest. The blanket rate to the points where liberal diversion privileges are available is \$1 per 100 pounds on lemons and \$1.15 per 100 pounds on oranges and grapefruit. All routes are used, and lengths of haul vary from 500 to 3,300 miles, cars being en route on an average of from 15 to 21 days. Cars are diverted from one point to another until sale is effected. If they travel as far as they can go, and can not be sold on the usual basis, namely, through brokers at a specified price per box, they are finally placed in auction or handled on consignment, the seller being allowed a percentage commission on the gross sale. The brokerage allowed on these "tramp" cars is always 5 cents per box.

Orders are placed for cars by buyers through brokers who transmit same to the Randolph Fruit Co. These are filled at stipulated prices, cars to be shipped on date specified, and buyers drawn upon through bank. The buyers either deduct freight or assume same according to specific agreement.

Sales to local buyers are made either on consignment or f. o. b. basis, in small lots, and are handled in the same manner as shipments in carloads.

Collections are made, for all cars sold, direct to the grower after deducting freight charges and a stipulated price for handling the fruit, which varies from 40 to 50 cents per box, according to the districts and existing conditions. This charge covers all expense, such as washing, grading, sizing, packing, paper, loading, box material, overhead expense, such as clerical hire and general office expense, and the charge which is allowed the eastern broker. In this way there is but one charge between the grower and the seller, and two handlings between the grower and consumer.

This company is independent and separate from the auction companies; it simply avails itself of their privileges when found necessary or advantageous to do so, paying the regular auction charge, which ranges from 3 to 10 per cent on gross sales.

The beginning of the season varies with different shippers, but ordinarily marketing commences October 1. September 30 generally

marks the wind-up of the summer oranges (like Valencias) and the lemons, and is just prior to the shipping of early "navels," grapefruit, and lemons.

Essential elements of a selling agency's success are prompt handling, personal effort on sales, quick returns to growers, and low cost of marketing their fruit.

Some of the difficulties encountered are slow remittances from buyers of fruit; mishandling on the part of railroads, causing damage to the fruit; and slow mail service, frequently resulting in "size lists" failing to reach brokers in sufficient time before arrival of cars to enable them to work the trade thoroughly.

#### STEWART FRUIT CO., LOS ANGELES, CAL.

By W. H. STEWART, President.

The Stewart Fruit Co. is a corporation organized under the laws of California and is engaged as packer and eastern distributor for the growers of oranges, lemons, and such fresh deciduous fruits as cherries, apricots, plums and prunes, pears, peaches, and fancy shipping grapes.

A specific charge of 7 per cent commission on the actual selling price is made by the company, out of which are paid all expenses connected with the sale of the fruit. The company supplies packing houses and facilities in the various fruit districts of California at its own expense, the grower having no interest in the packing houses. Each grower receives the exact prices his particular fruit brings through the season; the so-called "pooling" method, which gives the grower the average price received for all fruit shipped during a certain period, is not followed by this company.

As a rule the grower picks his fruit and delivers it to the centrally located packing house, where the company takes charge of it, grades it, packs, and loads it on cars. In this manner the small growers are enabled to get the benefit of car-lot rates, and at the same time they are not asked to finance packing houses, equipment, or pay an advance for the labor or material used in the handling of their product. The only expense the grower has is the cultivation of his orchards and vineyards and picking the product and hauling it to the packing house.

In many instances the company is called upon to make advances to growers during the growing season to enable them to care for their orchards properly, and all such advances are collected when the crop is marketed.

In packing the fruit a specific charge is made on the various kinds of fruit and grapes per package, which charge covers the cost of material, labor, etc. No profit is made on this work other than enough to carry the district expense.

It costs the company from  $2\frac{1}{2}$  per cent to 5 per cent to market fruit, and any net revenue the company derives in the handling of the business must be derived out of the 7 per cent charged.

Sales are made either at auction or delivered "on track" in smaller eastern markets. A limited number of sales are made f. o. b. California.

Sales in eastern markets where there are no auctions are made delivered on tracks in car lots to jobbers, who in turn divide the car, selling portions of its contents to various retailers and peddlers.

We have general eastern officers at 192 North Clark Street, Chicago, and all offices are in constant touch with the markets, so that cars can be diverted on quick notice to any market east of Chicago.

This company guarantees to the growers the credits made in selling the fruit; in other words, no grower can lose money in doing business through this company on account of the failure of an auction company or a buyer after a sale has been consummated. Salaried representatives are employed in the principal eastern markets and brokers represent the company in other markets.

Where fruit is sold at auction it goes direct to the retailer or peddler, and where marketed at private sale it generally goes in car lots to jobbers.

Many of the largest corporations and growers throughout California do not pack and market their product through associations, exchanges, or fruit companies. They prefer to deal through marketing agencies, such as this company, and thereby eliminate the necessity of investing in packing houses, equipment, lumber mills, and other branches of the business outside of the legitimate fruit-growing channel. In this way they keep their capital working to improve and cultivate.

In the so-called cooperative association or exchange system of marketing the grower is assessed for packing-house plants, timberlands, sawmills, and many other outside interests, and the by-laws of certain of these exchanges or associations are such that if at any time the grower should become dissatisfied with the management or the handling of his business and decide to withdraw from the association or exchange he would suffer a loss of his interest, which had been assessed against him for packing-house improvements, timberland, lumber mills, etc. Therefore in many instances growers are really forced to continue marketing their product through a fruit organization in order to save their investment outside of the legitimate marketing of the fruit. A grower who markets his product through an independent fruit company such as this one is not bound to continue with it from season to season unless he is satisfied. Nothing is forfeited in changing an account at the close of a season.

The independent system of handling California products puts the agent on his mettle, as it is necessary for the independent operator to "make good" in order to hold the business from year to year.

California growers do much better in the long run in handling the product in an independent manner, as heretofore indicated, and with far more satisfaction to themselves than do those growers who are tied up in local associations.

No one concern or institution can successfully hope to handle California fruits direct from the groves to the consumer.

It is believed that the independent packer is necessary in accumulating the business and furnishing the various equipment and expert knowledge necessary to properly care, pack, and distribute the fruit. It is also believed that the jobber throughout the East is absolutely

necessary and is entitled to his profit for delivering the goods to the retailer and peddler.

#### NEWCASTLE FRUIT CO., NEWCASTLE, CAL.

By W. R. MONAHAN, Secretary and Manager.

The Newcastle Fruit Co., of Newcastle, Cal., is a corporation organized in 1903 by five growers owning about 800 acres of orchard, principally peaches, pears, and plums.

The fruit is loaded on cars at this point, and the bill of lading and manifest for each load is forwarded to the main office of the California Fruit Distributors at Sacramento, of which organization this company is a member.

The entire output is sold in eastern and southern markets by agents of the organization. Many cars are loaded on orders from jobbers in Colorado, Nebraska, Iowa, Kansas, Minnesota, the Dakotas, Oklahoma, and Texas. Shipments to these markets are usually in assorted lots of different varieties.

Auctions are maintained in the larger cities east of the Missouri River, and "straight" car-lot shipments are made; that is, each car contains all peaches, all plums, or all pears. There are times when a certain variety will sell well in one market and not be wanted in another.

Many cars are loaded with such assortments as may be wanted in certain markets, and start east not knowing where they will be sold. These are known as "tramp" cars, and the car numbers, contents, and dates of shipment are telegraphed by the California Fruit Distributors to its agents, and lists of these cars and contents are submitted to dealers and sold en route. The greater portion of sales by this company, outside of the auction markets, are made as follows:

The California Fruit Distributors make all collections, and the members pay the organization a commission of 5 per cent on all private sales and 1 per cent on auction sales. Out of the funds arising from this commission the organization pays all its expenses, and at the end of each season any surplus is paid back to its members in proportion to the amount of business handled for each of them.

The season begins with cherries in April and ends with grapes in December.

There are seven firms at Newcastle, Cal., who are members of the California Fruit Distributors, and these firms assist each other in loading "assorted cars" or "straight" cars for different markets, and each mails a manifest of its portion of such loads to the main office of the California Fruit Distributors, and as soon as payment is received by that organization it immediately mails a check to each member for its portion.

A limited amount of fruit is handled on consignment for some growers in the neighborhood. They are charged 7 per cent on auction and 10 per cent on f. o. b. sales.

Fruit of this company is sometimes stored by dealers in eastern markets for several weeks, and members of the California Fruit Distributors have held fruit in cold storage in eastern auction markets when prices were unfavorable.



Peaches are packed in boxes containing  $21\frac{1}{2}$  pounds; pears, 50 pounds; cherries, 11 pounds; plums, in four-basket crates, each weighing 26 pounds; and grapes in four-basket crates of 28 pounds each.

**NEWCASTLE FRUIT GROWERS' ASSOCIATION, NEWCASTLE, CAL.**

By A. F. WORTMAN, Manager.

The Newcastle Fruit Growers' Association, which is a strictly cooperative growers' concern, is one of many local associations which constitute the California Fruit Exchange, whose duty consists of marketing or selling the fruits of the different associations.

The fruit of the individual members of each association is assembled or loaded at its shipping house, and if intended for eastern shipment is turned over to the California Fruit Exchange, who attend to the routing, selling, and collecting for a stipulated commission. After defraying all of their operating expenses the California Fruit Exchange prorates any surplus profits to the different associations, according to the tonnage furnished by each; and the association, likewise, after first paying all of its local operating expenses, including a charge for loading on cars, distributes among the growers any profits which accrue from sales of fruit for growers or sales of supplies to them.

To summarize our method of marketing: All of the fruit shipped east is handled by our agent, the California Fruit Exchange, which maintains representatives in every important city. Accounts of sales are rendered from the general offices and settlements made weekly. The matter of marketing, whether by f. o. b. or auction sales, is in the hands of the California Fruit Exchange, although subject to the instructions of the local association. Local sales are usually consummated by the associations themselves.

We have found since our incorporation a marked improvement over former conditions, and our method of marketing through the California Fruit Exchange is profitable. However, we consider the freight rates charged by the railroad companies excessive, in many cases the freight and refrigeration being more than the net returns to the grower.

**GEORGE D. KELLOGG & SON, NEWCASTLE, CAL.**

By GEORGE D. KELLOGG.

Our section is devoted principally to deciduous fruit raising. From this point approximately 2,000 cars of deciduous fruit are shipped during the year.

There are 11 fruit-shipping houses in the town, some operating on a commission basis; 2 use what is known as the "cooperative exchange" system, while others buy the fruit from the grower and ship on their own account. Thus our market is so constituted that it may satisfy almost any grower.

Eight of the wholesale shipping houses here are members of the California Fruit Distributors, whose headquarters is at Sacramento and which is composed of 14 wholesale shippers from different portions of the State. This concern, which ships approximately 65 per

cent to 70 per cent of all deciduous fruit shipped from California, attends to the marketing of the members' fruit and does not buy or speculate in any way in fruit; it is simply a marketing agency.

Our fruit is sold, when possible, f. o. b. California. What can not be sold this way is sent to the large eastern cities, where it is disposed of at auction to the highest bidder. The auction sales practically regulate the price of f. o. b. sales.

Our central distributing agency enables us to exploit new markets, keep all fruit centers supplied, and prevents, as far as possible, an oversupply in any market. But the fact that there are four other combinations in California competing with us makes it impossible to prevent an occasional oversupply in some market.

Our fruit season usually begins with cherries, about April 25, and closes with grapes, about November 1. During this season we market in carload lots cherries, apricots, peaches, pears, plums, grapes, apples, and quinces.

This firm buys 98 per cent of the fruit it ships. Our receipt is given as fruit is delivered, and cash settlements with growers are made at least once a month.

#### CELERY GROWERS' ASSOCIATION, ORANGE COUNTY, CAL.

By CHARLES C. JOHNSON, Secretary.

The Celery Growers' Association of R. F. D. No. 3, Santa Ana, Cal., requires its members to deliver or turn over to it all celery grown or controlled by them to be marketed by the association.

When the celery is ready for harvesting the association sends a crew of men into the fields, who cut the celery from the ground, grade it, and pack it in crates. The grower hauls it to the shipping point, where it is received and loaded in cars by the association.

When the cars are loaded they are turned over to the California Vegetable Union, a corporation doing a commission business, to be marketed by it as selling agent, and with which the association has a five-year contract. Under the terms of this contract the association agrees to deliver all its celery to the union and to pay a commission of  $1\frac{3}{4}$  cents per dozen bunches for all celery selling under 18 cents per dozen and  $2\frac{1}{4}$  cents per dozen for all celery selling for 18 cents or more per dozen.

The largest part of the crop is marketed between November 1 and April 1.

On the 15th of each month a complete settlement is made by the union with the association for all celery sold during the previous month, and the association makes a pool of the proceeds received for each month's shipments and divides it among the farmers furnishing the same according to grades and varieties.

An executive committee, consisting of one member each from the association and the union, is appointed, one of the duties of which is to decide the selling price of the celery. If these two members can not agree on a price, they appoint a third member. All information received regarding the supply of and demand for celery is turned over to this committee, and they decide the price. On Friday of each week quotations of prices for the coming week are sent to agents

throughout the United States and Canada, and celery is shipped only on orders received from dealers at an f. o. b. price California.

At times in the past this organization has issued and mailed to its members a bulletin containing information concerning the celery industry.

In marketing the crop through cooperative associations it has been found that the grades are uniform, the product is properly distributed, and no markets are glutted. The principal difficulty encountered is that outside growers crowd their celery into markets on consignment, thus demoralizing prices.

Dealers usually place some celery in cold storage in March for use during the following two or three months. In some instances this association has had a few cars left on its hands unsold, which they have placed in cold storage until disposed of.

#### LIMA BEAN GROWERS' ASSOCIATION, OXNARD, CAL.

By J. M. WATERMAN, Manager.

The Lima Bean Growers' Association, of Oxnard, Cal., was organized to protect the growers from the activities of a few independent dealers who manipulated the lima-bean market year after year for their personal gain, regardless of farmers' or distributors' profits or market conditions.

Great pressure was brought to bear to crush this new organization in its infancy. Some of the banks refused credit at a time when credit was essential; and it was only when one bank refused to do as asked by others and offered credit, and members of the association put up additional funds to help out, that success was assured. The independent dealers endeavored to control the eastern markets, and constant work was necessary in order to give them a wholesome fear of going too far in misrepresenting actual facts and conditions.

Prior to the organization of this association it was the practice to carry over large quantities of lima beans from season to season, but since that time there have been no carry overs.

By a system of cleaning and inspecting a more uniform and better quality obtains, and prices have averaged about 25 per cent higher than under the old system.

By working in harmony with the National Wholesale Grocers' Association a better understanding between producer and distributor has been brought about.

The beans are packed in sacks of uniform weight, sales are made on the net weight basis, and a discount is given for cash.

The office of this association is at Oxnard, Cal., the center of the lima-bean growing district, and the officers of the association consist of a manager, an assistant manager, a cashier, and an inspector; and throughout the United States and Canada agents are located in all fair-sized cities or districts, which agents are all under bond and sell on a commission basis. It is the agents' duty to keep the association closely informed of conditions concerning the lima-bean market and selling conditions in his district.

Before the harvest commences the agents of the association take orders on contracts, without price, subject to the buyers' approval of price when named by the association. When the prices are named

it is optional with the wholesale grocer whether or not he shall approve of his purchase.

Prices are named every two weeks, commencing September 15 and ending December 15, this being the main shipping season of the year, although lesser quantities are sold throughout the year.

The association names as its selling price such figures as are offered the independent farmer by the independent dealer for his beans.

Farmers who are loyal to the association turn their beans over to it, and accept the average price received therefor throughout the year, after deducting from the amounts received the expense of maintaining the office.

Correct information about actual marketing conditions in the East are at all times given out by the home office at Oxnard to the farmers, and they are urged not to sell their crops without communicating with the association.

#### PENRYN FRUIT CO., PENRYN, CAL.

By H. E. BUTLER, Manager and Treasurer.

Penryn Fruit Co. has its main office at Penryn, Cal., and deals in fruit products of this district exclusively, buying, selling, and handling on commission. While we are an independent corporation, our shipments are "cleared" through California Fruit Distributors of Sacramento, Cal., of which association we are a member. Relations of commission houses in State of California, as members of the California Fruit Distributors, result in reasonable and even distribution of supplies throughout the markets of the United States, Canada, and England. The result of the organization of the California Fruit Distributors has placed the California fresh-fruit industry on a safe, stable, and profitable basis for the grower as well as the dealer.

A large part of the business of this company consists of purchases of products from producers, which are disposed of in the same manner as when marketed on consignment.

No fruit is sold at auction in the producing region, and no sales are made to California buyers, except to canneries during August and September. We make no charge to the growers for these sales, for the canneries pay for loading and handling. Practically no sales are made prior to harvest. Carload shipments only are made.

The fruit products handled by this company are packed in the orchards by growers themselves and delivered ready for shipment, according to the custom throughout the deciduous districts of northern California. The season commences May 1 and ends October 15.

Grades, weights, and packages are determined by local custom, and this company looks after the quality and packing of the goods which it markets.

Consignments on commission are handled for the grower at (1) 10 per cent of the net selling price f. o. b. Penryn, where the fruit is sold f. o. b.; payments are made to growers on the 1st and 15th of each month; or (2) 7 per cent on the gross sale where fruit is sold in auction markets.

Fruit assembled and loaded by this company is sold to jobbers (wholesalers or retailers) in carload lots, either f. o. b. Penryn or in transit on f. o. b. Penryn basis, in which case buyer pays freight and

refrigeration charges, and draft is attached to bill of lading for agreed price; or carloads are consigned to the representative of the company at an auction point, who sells through an auction company. Buyers at auctions are jobbers, wholesalers, peddlers, and others. The charge made for selling at auction market is about 5 per cent of the gross sale, leaving us 2 per cent on the gross proceeds of the 7 per cent we charge the grower.

The expense of marketing, between producer and consumer, includes: (1) Commission; (2) nominal loading charge; (3) profit of jobber to retailer; (4) profit of retailer to consumer.

Public market places for private sales in the wholesale trade have not been available nor used in the distribution of products by the Penryn Fruit Co. The auction markets at which the company is represented are: New York, Chicago, Philadelphia, Pittsburgh, Boston, Baltimore; Buffalo, Detroit, Cleveland, Cincinnati, Montreal, Toronto, Minneapolis, St. Paul, St. Louis, and New Orleans.

Points at which our cars may be diverted in transit include Sacramento, Ogden, Salt Lake City, Portland (Oreg.), Denver, Pueblo, Omaha, Chicago, and many others.

The perishable products handled by this company are not stored by the producer, but jobbers and retailers store them to a very small extent.

The difficulties encountered by fruit growers are principally unhealthful conditions due to malaria during the fruit harvesting season when irrigation is practiced. Oriental (Chinese, Japanese, and Hindu) laborers are practically the only kind available. Labor is the largest factor in the economic problems of the fruit grower in many of the irrigated districts of California. Investigation toward control of this preventable disease is one of the essential elements to success and infinitely more important because it involves a loss far greater than cost of marketing.

#### MUTUAL ORANGE DISTRIBUTORS, REDLANDS, CAL.

By A. GREGORY, General Manager.

The California Mutual Orange Distributors, of Redlands, Cal., is a federated cooperative organization of growers of oranges and lemons. It began about six years ago with a union of 4 local associations, and now consists of 22 local associations for which it acts as selling agent. Each local association selects one director of the larger organization.

The local associations do the picking, packing, and loading on cars. The bills of lading and manifests are turned over to the selling department of the Mutual Orange Distributors, who take charge and dispose of the shipments, either by selling them f. o. b. California or otherwise. The net proceeds of sales are turned over to the local associations. During the past two years over \$3,000,000 were thus paid out.

Each association is operated individually, so far as the cost of maintenance, etc., is concerned. The local association during the season charges a fixed price for the packing and selling expenses, and, at the end of the season, refunds to the growers any saving made out of the packing expense. The local union pays the general organi-

zation 10 cents per box to cover expenses of marketing. At the end of the season any balance remaining from this contribution is refunded, so that the packing and marketing are done at actual cost.

#### REDLANDS ORANGE GROWERS' ASSOCIATION, REDLANDS, CAL.

By DWIGHT C. LEFFERTS, Secretary.

The Redlands Orange Growers' Association is a stock company, having 11 shares of stock, owned by orange growers in the Redlands district. The corporation owns the real estate and packing houses, and is responsible for the making of all contracts for the purchase of materials and for the fulfillment of contracts for the delivery of fruit, etc. The stockholders have no advantage in the marketing of their fruit over growers whose fruit is handled by the association. All the expense of marketing and handling the fruit is divided pro rata according to the number of pounds of fruit delivered by each grower.

The interest on the investment of these 11 stockholders is deducted and charged as a regular expense against all fruit, and is merely sufficient to pay a reasonable interest on the actual investment in property.

Sales are made direct to jobbers by three methods:

1. In the large central markets, the association maintains its own brokers to whom direct shipments of fruit are made. These brokers sell to jobbers on inspection. This method is used only in the central markets from which diversions can be made forward toward the East. If diversion were impossible, the car would have to be disposed of at that central market point, and the association would be compelled to accept the jobber's offer, instead of being able to fix the price at which the jobber may buy the fruit.

2. Sales at public auction are made for a very small percentage of the fruit, and these sales are made only in the far eastern markets from which there is no diversion privilege. New York and Boston are the only markets where this association sells through public auction, but at these points there is a body of buyers large enough to guarantee free bidding and the payment of the real market price—as established by supply and demand.

3. Sales are made direct to jobbers in various cities, especially in the Pacific Northwest, from which this association has no diversion privilege. The price is made f. o. b. cars Redlands, and the terms are draft attached to bill of lading.

No consignments are made to commission houses, nor are sales made to local buyers. No goods are exported, the markets of the association being Canada and the United States.

Contracts are not made in advance of the maturity of the fruit; in fact, they are seldom made over a week in advance of shipment.

Rules for the grades of fruit can not be so hard and fast as for grain and some other products, but are more a matter of personal judgment. There is no authoritative body for their enforcement, such as a board of trade, but they have grown up as a custom and have become more or less fixed.

Fruit is divided into three grades: Extra fancy, extra choice, and standards, and they are marketed as such.

Oranges are not sold by weight, but by the box, which is of definite dimensions.

The marketing season begins about the 1st of December and lasts to the middle of the following September; the heaviest shipments are made from the middle of January to the middle of June.

The association takes entire charge of the packing and marketing of the growers' fruit. Instruction is given the grower as to how much fruit to pick, and when to pick it. Then it is delivered by him to the packing house, where it is weighed, and he is given a receipt for the number of pounds delivered. Upon delivery at the association scales the responsibility of the grower ceases. As an insurance to the individual grower all fruit is pooled by grade.

If the individual grower had to stand the risk of transportation on his fruit, the result might be disastrous, but by pooling he is practically insured against the risk of transportation, as each grower gets the average result, instead of what his individual fruit realizes. Sales are made on a fluctuating market, and by this pooling method the personal chances of loss through a falling market are eliminated.

As the fruit is received in the packing house its individual identity is preserved until it is graded prior to packing. Thus a record is kept of the amount of each grade which each grower has, and returns are paid per grade, so that the grower of good fruit receives more money than the grower of poor fruit. This, of course, is an incentive to produce good fruit. The identity of the fruit is not preserved after grading, but fruit from any number of growers may be loaded into each car.

The steps in sales from the association to the consumer are: To the jobber, a direct sale; from the jobber to the retailer; from the retailer to the consumer. As the association handles the fruit at cost, only two profits are made between the producer and the consumer.

The following tables give an approximate estimate of the charges on fruit between the producer and the retailer:

Cost of material, packing, and administrative charges of the association	\$0.35
Brokerage	.05
Freight	.82
Icing (average)	.15
Jobber's profit (average)	.30

Total between grower and retailer 1.67

The above table shows that if the retailer pays \$3 for a box of oranges the producer receives \$1.33 net for the fruit. The profit which the retailer makes is purely a matter of speculation, but is presumed to be in the neighborhood of 100 per cent. Therefore the consumer will pay \$6 per box for the fruit for which the producer only gets \$1.33.

Fruit is kept in packing houses by the association only long enough to cure; no fruit is stored. Sales are made either f. o. b. shipping point or immediately on arrival at destination.

It is not thought that much storing is done by the middleman. It is believed that the fruit is moved by him as rapidly as possible, except toward the end of the season, when it is known that additional supplies can not be shipped. A few cars are then put in storage to last during the season when shipments are not being made.

Distances of shipments vary greatly with an association whose market is the entire United States and Canada. However, on all

eastbound shipments this association has a so-called "postage-stamp" rate—that is, flat rate of \$1.15 per 100 pounds, regardless of the distance. On shipments to Pacific coast points there are varying rates, according to distance. Liberal diversion privileges are accorded, permitting the association to divert forward on the through rate in any given direction, but no back haul is allowed.

This diversion privilege is essential as a protection to the association in handling such a perishable product as fruit.

Constant advice is received concerning market conditions from various brokers in the market centers and through telegraphic reports from the auction markets in the larger distributing centers.

The cooperative method of marketing fruit has worked out as the one salvation of the California orange grower.

It is believed that the one difficulty which stands in the way of the producer receiving the highest possible returns for his fruit is that the retailer does not vary the price to the consumer in accordance with the varying market conditions under which he buys.

The average grocer fixes a price per dozen for a certain size fancy orange at the beginning of the season and maintains that price whether he pays \$3.50 per box for his fruit or pays but \$2. Thus the lower price to the producer does not stimulate increased consumption, as the consumer gets no benefit from it.

If the retailers were to reduce their selling price in accordance with a lower wholesale market, it is believed that the increased consumption of fruit caused by this lower price would be very beneficial in moving a constantly increasing crop.

It is believed that the success of this association in marketing growers' fruit has been due to the following causes: Absolute fairness and openness in dealings with the growers, giving them access to the books of the association at any time, and keeping them informed as frequently as possible concerning market conditions, thus gaining their confidence, and to the rigid maintenance of the quality of the fruit packed under the different brands. Thus the jobber knows when he buys the association's extra fancy brand that he is guaranteed extra fancy fruit.

It has been the leading aim of this association for 20 years to live up to the methods mentioned, and a reputation has been built up for its brands, which is a valuable asset and contributes largely to success.

#### CALIFORNIA FRUIT DISTRIBUTORS, SACRAMENTO, CAL.

By F. B. McKEVITT, Manager.

The California Fruit Distributors, of Sacramento, Cal., is a corporation organized in 1902 composed of the following 14 shipping companies operating in that State: Earl Fruit Co., Sacramento, Cal.; Producers' Fruit Co., Sacramento, Cal.; Pioneer Fruit Co., Sacramento, Cal.; A. Block Fruit Co., Santa Clara, Cal.; Geo. H. Anderson, San Jose, Cal.; Geo. D. Kellogg & Son, Newcastle, Cal.; W. J. Wilson & Son, Newcastle, Cal.; Schnabel Bros. & Co., Newcastle, Cal.; Silva-Bergtholdt Co., Newcastle, Cal.; Newcastle Fruit Co., Newcastle, Cal.; Frank H. Buck Co., Vacaville, Cal.; Vacaville Fruit Co., Vacaville, Cal.; Pinkham & McKeVitt, Vacaville, Cal.; Penryn Fruit Co., Penryn, Cal.



The object of the corporation is to provide a marketing agency for its members. The capital is nominal, and no stock dividends are paid. The organization does not buy a pound of fruit, nor a single package of box stock, or other merchandise used in the handling of the crop. It confines its efforts to the marketing of the output of its members, and does not make a profit on its operations, all services being rendered at cost.

Originally there were 11 companies represented in the corporation as stockholders, and each was entitled to one member on the board of directors. The volume of business shipped by a company has no influence with representation on the board. Stockholders meet annually and elect the board of directors. The board of directors choose all officers, including the general manager and the six members of the board of managers. Members of the latter board are not necessarily directors. The directors hold monthly meetings. The board of managers meet weekly during the shipping season. The business of the organization is in the hands of the manager, subject to the direction of the board of managers.

General offices are maintained at Sacramento, with departments as follows: Executive, sales, traffic and claim, accounting, and operating.

Branch offices are maintained at Omaha, Minneapolis, and New York. Representatives are employed at all auction cities, and brokers in all other places where car-lot business is done.

This corporation markets only in car lots.

As soon as a car is loaded, a manifest of its contents, together with bill of lading, is immediately forwarded to the Sacramento office. The shipper has the right to name the preferred destination of his car. As soon as the papers are received at the Sacramento office a card is filled out, showing the car number, consignment number, date and place of shipment, destination of car, and a summary of the contents of same. Such cards, representing all shipments received during the day, are distributed in a drawer in which there are a number of compartments.

Each of the large auction points has a section of the drawer, divided into 31 compartments representing the 31 days of the month.

A similar, but much larger drawer, is provided for the f. o. b. or private-sales points.

Railway schedule being known, the cards are distributed in those compartments of the drawer representing the days of the month on which they will be sold, so that after each day's work is done, by looking over the cards in the drawer, a correct idea is formed not only of the cars that will be sold daily in each market, but varieties and quantities of fruit which compose this offering. From this drawer a daily bulletin is made up showing in detail all shipments on the road, the points to which they are destined, and the varieties of fruit that will sell in each market on a given day. This bulletin is regularly mailed to each affiliated company, so that out-of-town members have the same knowledge of shipments, destinations, etc., as those who are in immediate touch with the central office. After the distribution in the drawer is made, if it is seen there are too many cars going to one market and too few to others the shippers are notified of this fact and diversions are made to equalize conditions. This is done not only so far as relates to carloads, but also as to varieties; both these matters necessarily being taken into consideration.

The manager has the right to make diversions arbitrarily if necessary. As the cars move eastward reports of passing are telegraphed to the Sacramento office. These reports are entered upon a "passing record," so that the corporation is fully informed at all times as to the position of shipments. This is necessary in order that it may check up the train movement to see whether or not it is according to schedule and for the further reason that it is enabled to know where cars can be caught for diversion purposes.

As soon as manifests for cars are received at the central office mimeographed copies are made of same, which are mailed each day to agents all over the United States.

At auction points these manifests are handed by agents of the corporation to the auction companies and catalogues are printed from them showing the number and variety of fruits to be sold and the name of the shipper, or any other marks that may be used upon the package. These catalogues are printed on rather stiff and soft paper, with spaces left for entering of prices, and are distributed to the buyers before they inspect the fruit. When a carload arrives at an auction point it is unloaded in the display room of the auction house; the fruit is piled up in tiers of 10 each, the top package in each tier being opened as a sample. Usually 20 packages of fruit constitute a "line." The prospective purchasers of this fruit pass through the display room, examine the different "lines" of fruit, and mark upon their catalogues their ideas of value. After the examination is completed and the time has come for the sale to begin, buyers file into the auction room where the auctioneer cries the goods, and in a few minutes the carload of fruit is sold. It sometimes happens that it does not require more than three minutes to sell an entire carload. In most fruit auctions buyers do not bid for particular lots. The auctioneer announces the number of the car he is offering and calls for bid for choice, and to the person making the highest bid is awarded the right to select anything from the carload that he chooses, never less than one entire "line," of course; but he can, at the price he has offered, take the entire carload if he wishes. After he has made his selection bids are again called for, and to the highest bidder is awarded the next choice, and so it goes until the entire car is sold.

When the sale is in progress, prices are noted by the receiver and telegrams are sent to the Sacramento office, reporting the prices at which the fruit is being sold. Immediately after the sale is completed a detailed report is made up and wired to California in cipher. This cipher, when worked out, enables us to report to each grower in the car exactly what his fruit brought, provided he has shipped 10 packages or more. Less than 10 packages are not reported by wire. Reports from the central office to the grower are mailed each night and reach him the next morning. These reports not only give him the prices at which his fruit sold but also a report of the shipments of different varieties of fruit going out of the State the preceding day, so that he has an opportunity, not only of being fully posted as to the sale of his fruit, but he can form his own ideas of the probable future market, as indicated by the shipments going forward. The day following the sale a detailed report of same, together with a check for the net proceeds, is mailed to the shipper.

About 75 per cent of California fruit is sold in the East at auction. The remainder is sold in smaller western cities on an f. o. b. basis.

The price is established in California, usually before the fruit is shipped, and is based as nearly as possible on the estimated auction values of fruit about the time of arrival of these purchases in their respective markets. In establishing the f. o. b. price, consideration is given, not only to supplies in California, their quality and condition, but also to local crops adjacent to the markets where the fruit will be offered for sale; and in order that this may be done intelligently, telegrams are received daily from such points, giving market conditions, crop reports, etc. F. o. b. cars are shipped to purchasers with sight draft attached to bill of lading. Buyers are given the privilege of examination, and if the fruit is not in good condition it may be, and frequently is, rejected by the purchaser, in which case the car, if not finally disposed of in the same market, is forwarded to the nearest auction point for sale.

The operation of the California Fruit Distributors is in no way a tax upon the industry, so far as the grower is concerned, the revenue necessary to maintain the organization being entirely derived from the shipper, who receives 7 per cent from the grower for handling his business.

Since its inception the organization has handled various percentages of the crop, ranging all the way from 60 per cent to 90 per cent, or from 5,000 to 8,000 carloads, annually; and while it has not been able to render the shipment of California fruit an absolutely safe and profitable one, it has eliminated many evils, accomplished much direct good, and has placed the business on a far more safe and stable basis than it has ever occupied in the past. When we consider the distance that separates California from her markets, take into consideration the vast quantities of fruit produced elsewhere in the country, and then think of the commanding position occupied by California fruits in all the markets of the United States, Canada, and Mexico, it will at once be seen that what has been accomplished could be done only through intelligent cooperation and the concentration of a sufficient volume of shipments in the hands of one organization to secure fairly correct distribution.

#### CALIFORNIA FRUIT EXCHANGE, SACRAMENTO, CAL.

By J. L. NAGLE, General Manager.

The California Fruit Exchange, of Sacramento, Cal., is incorporated under the laws of California.

In 1901 there was organized a cooperative marketing agency for the handling of California deciduous fruits under the name of "The California Fresh Fruit Exchange." The principal object of the exchange was to act in the capacity of a clearing house, through which the business of associations affiliated with it was to be handled.

It became necessary to have a connection with the California Fruit Growers' Exchange, which had salaried representatives in the principal markets of the United States and Canada. A contract was arranged between the two exchanges whereby the California Fresh Fruit Exchange, for \$15 per car and assuming its own expenses, such as telegraphing, telephoning, and stationery, was to enjoy the exclusive use of all the agencies of the California Fruit Growers' Exchange for the handling of deciduous fruits and vegetables only, it

being understood and agreed that the California Fresh Fruit Exchange would not handle any citrus fruits and the California Fruit Growers' Exchange any deciduous fruits. This contract was for three years.

Immediately after the organization of the California Fresh Fruit Exchange it was deemed advisable to organize as many fruit growers' associations in the State as possible, with a view of increasing the tonnage and thereby the power of the exchange. The first season the exchange marketed a little over 200 cars of deciduous fruits. In the 12 years since incorporation its tonnage has steadily increased until 2,000 cars are being marketed at the present time. The minimum weight per car has increased 2,000 additional pounds in the last two years.

As the exchange was originally organized to operate on a purely cooperative basis, without stock, the plan worked out successfully until an increase in business demanded financial assistance, which the banks of California were unwilling to give without a more tangible basis of credit than was possible under the original plan.

The exchange reorganized four years ago under the name "California Fruit Exchange," the original plan and purpose being maintained without any change other than the reincorporation on a stock basis. The exchange is incorporated for \$100,000, each share representing \$100. Any bona fide fruit grower in California, shipping through the exchange or any of its constituent associations, is permitted to buy from 1 to 10 shares of stock, 10 being the maximum. This stock pays an interest of 10 per cent and is distributed among 115 fruit growers located in different parts of California. They meet in annual session in January, at which time a board of 11 directors is chosen for 12 months.

The exchange has a contract with each of its 20 or more local associations, wherein it is specified that for a compensation of 7 per cent on the gross sales of each car shipped the exchange will assume all expenses of marketing, collecting proceeds, and distributing same as soon after receipt as possible, and at the end of the season the exchange agrees to refund to each association the net earnings pro rated on the gross proceeds of the season's business. For example, if the net proceeds this season amount to \$2,000,000, and if \$40,000 worth of stock has been sold, 10 per cent of \$40,000 is deducted from the net earnings to pay the interest on the stock, 15 per cent of the balance of the net earnings is set aside as a reserve fund, and the remainder divided among the local associations on a percentage basis in proportion to the gross proceeds from its members' shipments. This is afterwards paid to each grower in proportion to the amount of fruit he or she has shipped.

Furthermore, all of the supplies used by the local associations are purchased through the exchange. The small profit made on these purchases is divided at the end of the season among local unions.

The exchange solicits business from the eastern buyers only through its agents. All communications relative to the shipment of cars is between the Sacramento office, which is the general office of the exchange, and the eastern agents.

Cars are loaded by the local associations and as soon as loaded become the charge of the exchange, which has the sole right to divert these cars to whatever market it may see fit. Some cars sent to

auction markets are originally billed direct to destination or diverted, as conditions warrant. Other cars are sold before they leave California, and still others, termed "tramp cars," without any known destination at time of shipment, are sold en route, advice of their contents and price on same having been previously wired from the main office at Sacramento to the general western office in Omaha. This message reaches Omaha the day after the car has left its shipping point and is immediately transmitted by mail to the different agencies throughout the country, thereby giving dealers a description of the shipment several days before the car reaches the nearest point from which it may be diverted. The plan has proven very satisfactory for the fruit growers and also to the eastern buyers.

Frequently cars sold in this manner are rejected on account of the condition of the fruit or from the fact that the market has declined since the original quotations were placed on the car. The Sacramento office then determines whether it would be more satisfactory to grant an allowance on this car, in order to effect a sale, or to divert it to an eastern auction market, where the fruit will be sold absolutely on its merits.

Very little fruit is purchased by the eastern buyers before it leaves the shipping point. The perishable nature of the fruit would not warrant very many sales on this basis, principally because a considerable amount of fruit arrives at its destination in not as sound condition as when shipped.

All eastern auction markets, of which there are 18 in number, furnish the main office of this exchange with complete reports covering competitors' sales, weather conditions, and also advise as to whether demand is active or sluggish, and further reports are received daily as to receipts in each large market of fruits and vegetables from other sections of the country. These complete reports are embodied in a bulletin in the Sacramento office and mailed to all the constituent associations, which distribute the same daily to their growers. This enables about 1,000 fruit growers to keep in daily touch with complete market information from one end of the season to the other.

The exchange also maintains a traffic department, whose duty it is to see that proper rates of freight and refrigeration are charged by the transportation companies, that cars are properly diverted, that schedules are maintained by the carriers, and that a complete check is kept upon the cars while en route.

Through the inspection system, which is in daily touch with the traffic department, a complete record is kept of the arrival and departure of the cars of the exchange at all icing stations en route from shipping point to destination. Furthermore, it is the duty of the traffic department, which contains a claim department, to file claims against the carriers or refrigeration company for failure of diversions, rough handling, delay in transit, insufficient icing, or excessive freight or refrigeration charges. These claims, as soon as recovered, are paid to the grower on whose fruit the claim is made. During the past season the exchange refunded \$30,000 to growers, mostly made up from the rough handling of cars, which had a tendency to break the boxes or crates of fruit in transit, and which fruit, when sold, brought less than the average market price on the day of sale.

## EARL FRUIT CO., SACRAMENTO, CAL.

By C. B. DEWEES, Vice President.

The Earl Fruit Co. is a California corporation, whose principal business is the marketing of fresh deciduous fruit in carload lots, on commission for account of growers. The head office of the company is at Sacramento, with agents or representatives in various fruit-producing districts in California.

Some branches receive fruit from growers packed for shipment; other branches receive it by the ton, furnish the packing material, and do the packing for an agreed charge per package.

The heaviest purchases of fruit by this company consist of Bartlett pears, which are usually bought during the months of June and July each year, deliveries of fruit being made to the company by the growers from July 1 to September 1.

In districts where fruit is bought from the growers in packed boxes, these purchases extend over the entire season, from June 1 to October 1, but the heaviest deliveries are made during the months of July and August.

The packed fruit is loaded by the company in cars and billed to destinations as instructed by the general office. Daily reports are made to the central office showing the number of packages of fruit in each car. About one-fifth of the fruit marketed by the company is sold at private sale in the various cities of the United States or Canada, either through salaried representatives or brokers. The remainder of the fruit is sold at auction in the larger eastern cities. A commission of 7 per cent is charged on the gross price on fruit sold either at private sale or at auction.

In three of the California districts in which this company operates it also buys fruit from the growers, either packed in boxes or by the ton. This fruit is marketed along with consigned fruit. The volume of business each year amounts from 2,500 to 3,000 cars, and the company packs for growers' account and for its own account, about one-fourth of the fruit it handles.

There are few local dealers who wish to buy fruit in carload lots and few sales are made locally. Twenty to 30 cars would cover the most of these sales in any year.

No sales are made, nor are contracts entered into prior to the maturity of crops. All private sales are made to dealers or jobbers, and the buyers in the auctions are also mainly dealers and jobbers.

In marketing fruit the company employs the services of a cooperative commercial association known as the California Fruit Distributors, which has its headquarters at Sacramento. The Earl Fruit Co. and 13 other similar concerns compose this association.

One of its purposes is to oversee and arrange for proper distribution among the various markets and to reduce the cost of selling. To this end one salaried agent is employed at a market wherever practicable in preference to paying commission to brokers.

The auction plan in the larger cities is regarded as the best method of selling carload lots of California deciduous fruits, which in volume amounts to from 12,000 to 15,000 cars yearly and is rapidly increasing. Some of the larger auctions sell daily from 20 to 30 cars of California fresh fruit, and New York City sales are from 60 to 70 cars daily during the height of the season.

At auction sales the prices are open and public. Distribution of fruit through auction sales is also more rapid, as small dealers can buy in less-than-carload lots, and consumption of fruit is thus increased. An effort to sell all California deciduous fruit at private sales in the larger cities would probably result in congestion during the height of the shipping season, and prices would decline until it would not be profitable for the farmer to grow fruit.

An effort to sell all fruit f. o. b. cars in California would probably also result in failure, as only the larger dealers and jobbers could undertake to buy in carload lots; and they would have to purchase fruit a week ahead of their requirements, as it takes from 7 to 10 days to transport the fruit to the great Central and Atlantic States where it is consumed.

It has been the custom for this company to place in cold storage from 150 to 200 cars of apples each year, using for this purpose mainly Newton Pippins. This stored fruit is sold during the months of January, February, and March each year. Formerly the prices received for this stored produce, after deducting storage charges, were usually higher than the prices prevailing at the time fruit was placed in storage, but during the past two years such gains have not been made. The reason assigned for this is that the production of apples in the United States has increased so rapidly that it has outgrown the demand.

It is the custom of this company to store apples at the nearest point available to the place where they are grown. The amount of apples placed in storage represents from one-fourth to one-third of the entire quantity of apples marketed by the company.

California is a heavy producer of table grapes, over 12,000 cars being shipped to eastern markets during the past two seasons. These shipments are made chiefly during August, September, and October. Some difficulty has been encountered in successfully marketing this fruit at a profit to the grower, as these grapes come into competition with large crops of grapes produced in Michigan, Ohio, and New York, which are also put on the market during September.

Experiments conducted by the United States Department of Agriculture during the past three years have demonstrated the possibility of successfully keeping in cold storage some of the later varieties of grapes by packing in redwood sawdust. This has been found to be equally as good for this purpose as cork dust, and can be procured on the Pacific coast at one-third the price.

The Earl Fruit Co. is at this time placing in cold storage from 20 to 30 cars of Emperor grapes, to be disposed of in December and January. Should the storage of these grapes prove a commercial success, it will prolong the season in which California grapes can be sold, and will improve the prospect of obtaining better prices.

#### PIONEER FRUIT CO., SACRAMENTO, CAL.

By H. M. ELLIS, Vice President.

The bulk of California fruit is packed ready for shipment and is delivered by the producers to fruit-shipping firms, by whom it is distributed in car lots to the markets of the United States, Canada, and Europe. A portion is sold through public auctions, open to all

buyers, at the following cities: New York, Boston, Philadelphia, Baltimore, Chicago, Minneapolis, Pittsburg, Cleveland, Cincinnati, and St. Louis. A large portion of fruit is sold f. o. b. cars at shipping points.

The Pioneer Fruit Co. is one of these shipping concerns. It has representatives and packing houses in various producing districts. It makes use of the auction facilities at the large eastern centers, and at the smaller cities has representatives to look after private sales.

The first sale made after leaving the producer is either at the auction in an eastern city, or f. o. b. cars at shipping point. In both cases the fruit is distributed by the buyers at the market points to smaller dealers, except where fruit is bought at auction by peddlers, in which event it goes direct to the consumers.

Few sales are made direct to consumers.

When he delivers his fruit to his shipping firm, the producer knows just what his marketing expenses will be; they include charges for loading, freight, refrigeration, and commission. The usual commission charge made by a shipping firm in California is 7 per cent on gross proceeds of sales.

Producers who do not care to consign their fruit often sell outright to the shipping firms and are paid the general ruling market price. Crops are frequently sold for a stated price through the season, but this involves an element of speculation on the part of both buyer and shipper. Other growers sell from day to day, taking the ruling market price for the variety. Fruit is generally delivered at the nearest packing house of the shipping firm selected. When a firm buys outright, their own fruit is marketed in the same way in which they market the growers' fruit.

No auction sales are held in the deciduous fruit-producing sections of California.

No great number of sales are made prior to harvest, and what sales are made are subject to the ruling price at time of shipment.

There are some cooperative associations in California, and they market in practically the same manner as the commercial shipping bodies. Some of them act as selling agencies only so as to get the best distribution and prices possible.

From experiments which have been made from time to time by producers and shipping firms the sizes and shapes of packages that will carry the fruit with the least degree of injury have been selected. When the same style and size of package is used for each kind of fruit it is easy for a buyer to know the weight of each package before it is received.

The average weight of a package for each principal kind of deciduous fruit is as follows:

Weights:	Pounds.
Peaches .....	21½
Pears .....	50
Plums .....	26
Grapes .....	28
Cherries .....	11
Apricots .....	26

In various districts a standardization committee establishes the grade of the fruit.



The heaviest marketings of California deciduous fruits are generally from July 1 to September 15.

In many markets the commission houses work together to secure an even distribution of supply and good prices; while in other markets dealers are constantly cutting prices, fighting each other, and demoralizing the market. When they work together better results are obtained and more fruit is sold.

Auction rooms in large cities are usually located on some railroad track, where the fruit is unloaded from the cars and placed for exhibition. All buyers have a chance to examine it before the auction takes place. Samples of all varieties are opened, and the fruit is sold on these samples. The auction house is operated by an auction company, which is independent of the fruit shippers. After each sale printed catalogues are issued showing the selling price of each lot of fruit, and this catalogue is always accurate and reliable. The auction company guarantees the collections on sales made by it.

Producers of California fruits do not store any on the farm, and very seldom store elsewhere, as it is sold as fast as it arrives at destination.

Very little besides pears, peaches, and a few grapes is stored by middlemen, and these are usually stored in eastern cities.

Market news at the selling agency is received daily by wire from all markets when sales are consummated, and these reports are furnished, when desired, by shipping firms in the form of daily bulletins and, also, by telephone.

Fruit could be marketed at a profit and with much better results to producers if there were more unanimity of action among the shipping firms.

The greatest difficulty encountered is the cutting of prices, also the overstocking of markets and the lack of energy displayed by the average producer in seeing that nothing but the best is packed and shipped.

It is necessary for the shipping firm to inspect everything shipped, otherwise results would be very much worse.

#### PRODUCERS' FRUIT CO., SACRAMENTO, CAL.

By H. A. FAIRBANK, President and General Manager.

The features of our method of distributing deciduous fruits are as follows:

We handle fruit for the producer on consignment, for which a charge is made of 7 per cent on the gross amount of sales and an additional charge equal to actual cost of loading into car. By far the larger percentage of producers of deciduous fruits prefer to and do sell their production f. o. b. shipping point, declining to take the risk of market, weather, and other adverse conditions. From such growers we buy f. o. b. Settlements covering either consignments or f. o. b. purchases are made immediately on receipt of returns from point at which cars are sold.

The time a car is in transit from shipping to unloading point varies from 8 to 12 days, and in some instances a few days longer.

In a large percentage of cases the grower is advanced sums of money, proportionate to his anticipated crop, with which to pay his expenses of cultivation, spraying, pruning, etc., for which no charge is made, and this notwithstanding the fact that these sums are unpaid for from three to six months or longer. Such advances are deducted from the returns of a grower's shipments.

There are practically no sales to local buyers, nor are there sales direct to consumers. As to the latter, freight and express charges on small lots are prohibitive. Few, if any, sales are made prior to harvest except on a basis of so much per ton in bulk or per package of packed fruit. This company at times buys just immediately before harvest on a per ton basis, and then only for that season's yield. As to grades, weights, etc., custom has, for all usual purposes, established these, and they are, almost without exception, satisfactory to producers. The season of heaviest sales is from about June 1 to October 15, shipments of some varieties being made both prior and subsequent to dates noted.

Owing to many negative causes, the cooperative method of selling deciduous fruits has proven unsatisfactory, principally because of the perishable nature of the product handled. Sales at auction in producing regions are so impracticable as to require no comments. Sales in large cities, either through auctions—in such cities as New York and Boston—or at private sale at unloading point, have been proven efficient and practicable.

The fruit handled by this company goes through a general selling and distributing agency, the California Fruit Distributors, and the advantages derived therefrom are self-assertive and patent. However, I believe the distributing agency just referred to has written you fully regarding its methods.

The only cost to the producer is the 7 per cent commission and cost of loading into car on fruit handled for his account. On fruit purchased from him f. o. b. shipping point he pays no charges.

The greatest difficulties confronting the handling of deciduous fruits are high freight and refrigeration charges, the high minimum carload, and lack of diversion privileges to many advantageous markets.

#### SANTA CLARA COUNTY FRUIT EXCHANGE, SAN JOSE, CAL.

By PHIL0 HERSEY, President.

The Santa Clara County Fruit Exchange has been out of business for two years. Our method when in active business was to appoint agents in all important distributing locations in this country and Europe and have them solicit orders for our approval. This method was very satisfactory to those of us who had the business in hand.

We received the product from our members (who voluntarily delivered it), packed and sold for actual cost to them. Figures show that if all the producers of Santa Clara Valley had received the average price we paid our contributors during the 19 years we were in business they would have received \$15,000,000 more than they did. This high average price was not satisfactory to our members, however, because they did not get the highest price paid anyone acting independently during the season.

**SEBASTOPOL APPLE GROWERS' UNION, SEBASTOPOL, CAL.**

By E. C. MERRITT, President.

The Sebastopol Apple Growers' Union, of Sebastopol, Cal., is a corporation whose stockholders, numbering about 200, are all producers of apples.

The union was organized not only for the purpose of marketing, but to standardize and improve the pack of apples shipped from this section. The grower delivers to the most convenient packing house, of which there are three, and the union grades, packs, and sells the fruit, returning to the individual grower the average price received for the different grades and varieties after deducting the actual expense of packing and selling. Instead of each grower shipping apples packed in accordance with his own ideas, the union puts out one uniform pack. Its products include approximately 70 per cent of the product of the district in which it operates.

The success of the union during the two years of its existence is attributed to the uniform fancy pack shipped under its label and the elimination of competition between growers.

Shipments are made to jobbers in the different markets.

The bulk of sales are made f. o. b. cars, shipping point; consignments are made of a few varieties for which demand is limited.

In several eastern markets dealers have been found who purchase a certain number of cars each year, and if the volume of business guaranteed is satisfactory these dealers are given exclusive right to sell the products of the union. In other distributing centers sales are made to the jobbing trade by brokers.

The erection of a cold-storage plant is contemplated by the union. This will enable the shipment of apples as needed, instead of causing a depression of values by putting them on the market at one time. It is better to store at shipping point than to take advantage of the storage-in-transit privilege at some eastern point, as in the latter case final market is confined to a limited territory.

Sales are made by this company in Europe and South America, and it is believed that after the completion of the Panama Canal and the establishment of lower freight rates this trade will be greatly increased.

**SEBASTOPOL BERRY GROWERS (INC.), SEBASTOPOL, CAL.**

By a Representative of the Association.

The Sebastopol Berry Growers (Inc.), of Sebastopol, Cal., is an association formed for the purpose of marketing berries, and has an authorized capital of \$50,000, of which \$6,200 is paid up. One hundred and ninety growers are members of the association, representing about 1,100 tons of the annual crop in this section of California, which aggregates about 1,500 to 1,700 tons.

The berries of each grower are pooled with other berries of a similar kind, under a uniform contract, and are sold by the association for the account of the growers, the proceeds of sales being divided pro rata. A commission of 2 cents per crate is charged for all berries sold for canning or similar purposes and 11 cents per crate for those shipped to market. The system of bookkeeping in

use is such that each variety, kind, or grade of berries is separately accounted for.

Some sales to local markets are made at prices which include delivery, f. o. b. at shipping point, while car-lot shipments are regularly consigned to commission men or brokers. Among the destinations to which this organization ships car lots of berries are points in the Sacramento and San Joaquin Valleys of California, also Denver, Omaha, Pueblo, and other points east of the Rocky Mountains.

During the shipping season the association sends a representative to various markets to look after its interests. Such berries as can not be marketed fresh are sold to canneries or preserve factories.

The shipping season for berries lasts about six weeks.

The management of this association consists of a board of directors of seven, elected annually from its membership. Sales or purchases of a large or important character are made by committees of the board of directors in conjunction with the manager, who is appointed by said board.

To assist in defraying its overhead expenses, and in order to maintain an organization throughout the year, the association has engaged in a general farmers' supply business. Poultry supplies, feed and grain, box shooks, fertilizers, spray materials, and other supplies are handled.

The "form of agreement" follows:

SEBASTOPOL BERRY GROWERS (INC.), CAL.

[Form of agreement between the association and an individual grower.]

This agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 191—, by and between \_\_\_\_\_, of the county of Sonoma, State of California, the party of the first part, and Sebastopol Berry Growers (Inc.), a corporation, incorporated under the laws of the State of California (hereinafter referred to as the corporation), party of the second part.

Witnesseth: That the said first party in consideration of the agreements to be performed on the part of said corporation hereinafter contained and the services by it to be rendered pursuant thereto, hereby agrees to deliver to said corporation for sale on \_\_\_\_\_ account, all of the red raspberries, Mammoth blackberries, and all other berries now growing or which shall be grown, for shipment or for canning purposes or for other purposes, or in which the said \_\_\_\_\_ shall have any interest, as landlord or tenant, during the continuance of this contract, which is hereby understood to run from year to year, unless canceled by written notice served personally or by mail by either party upon the other at any time between the 25th day of January and the 5th day of February of any year except year following date of contract, upon these certain tracts of land situate in said county of Sonoma, State of California, more particularly described as follows: \_\_\_\_\_.

The party of the second part agrees to receive at their place of business in the town of Sebastopol, in said county, and inspect every crate or chest of berries grown by said party of the first part, and said party of the first part agrees to deliver the same there at any reasonable time in a first-class merchantable condition.

And said corporation further agrees that when it is necessary it will furnish a suitable and well-arranged warehouse and storeroom where said berries can be slatted up so as to be well cooled before shipping; and when necessary to furnish refrigerator cars, or pony refrigerators, so that said berries can be delivered to markets that they could not otherwise reach without such refrigerator service, thereby enabling better prices to be realized. And also agrees to employ reasonable and proper methods to obtain information concerning market conditions and prices at the large market points so as to enable the marketing of such berries of the party of the first part at the highest possible prices.

To sell as many of said berries for fresh consumption, as desirable, and to dispose of the balance of said berries for canning or other purposes to the best possible advantage. And to retain from the net proceeds of said sales the sum of 5 cents per chest or two cents per crate for berries sold for canning or other purposes, and the sum of 25 cents per chest or 11 cents per crate for shipping purposes.

A crate, as designated by this contract, means twenty-four cups, the net weight of which is twenty-four pounds, and a chest, as designated by this contract, is understood to contain 12 drawers of berries weighing:

	Estimated tons.
Blackberries, 50 pounds-----	-----
Loganberries, 50 pounds-----	-----
Raspberries, 31 pounds-----	-----
Strawberries, faced, 44 pounds-----	-----
Strawberries, unfaced, 40 pounds-----	-----
Mammoth blackberries, 50 pounds-----	-----
Other berries or fruits-----	-----

It is mutually agreed and understood between the parties hereto that if the party of the first part fails to deliver any of said crops to the party of the second part as herein provided, the said party of the second part shall be entitled to a commission of 25 cents per chest or 11 cents per crate on every crate or chest of berries grown on the property described herein, as affixed, determined, and liquidated damage, in addition to such other or further damage or loss as may be sustained by said corporation by reason of any act or default of said party of the first part.

The board of directors of the party of the second part shall have full authority to designate what percentage of the berries herein described will be sold for canning and other purposes, and what percentage thereof will be consumed fresh.

The net proceeds derived from the sale of said berries, less the charges of said corporation, are to be delivered to the said party of the first part at the earliest possible moment, but it is distinctly understood that the berries described in this contract are to be pooled with berries of a similar kind grown by other growers, and the proceeds to be divided pro rata.

In witness whereof, the said parties have hereunto executed this agreement the day and year first above written.

SEBASTOPOL BERRY GROWERS (INC.),  
 By \_\_\_\_\_, *President.*  
 \_\_\_\_\_, *Secretary.*

Witness to signatures:  
 \_\_\_\_\_

**PINKHAM & McKEVITT, VACAVILLE, CAL.**

The Vacaville district, in which we operate, ships about 1,000 cars of deciduous fruit each year. Our season opens in April with express shipments of cherries and usually closes in November with Emperor grapes. Seventy-five per cent of the fruit is shipped during the months of June, July, August, and September.

Practically all shipments are made on consignment, there being very little f. o. b. business in this district. The fruit is sold at auction in the principal markets of the United States and Canada, including New York, Boston, Chicago, Philadelphia, Pittsburgh, Baltimore, St. Louis, Cleveland, Minneapolis, St. Paul, Detroit, Buffalo, New Orleans, Toronto, and Montreal.

Some fruit is sold f. o. b. shipping points to the buyers in the smaller markets. In this case the buyer has the privilege of inspection on arrival. If the quality and condition are satisfactory he ordinarily accepts the car and pays our draft, which is drawn against the bill of lading. In some cases shipping companies buy fruit which

they ship for their own account, but owing to heavy losses in the past this practice is on the wane.

In this district the fruit is picked and packed by the grower on his ranch. The shipper exercises a general supervision over the condition and quality to save possible complaints due to low prices. After being packed the fruit is hauled to town and turned over to the shipping company. From that time until his returns are received the grower has nothing to do with the fruit.

The shipper takes full responsibility in selecting markets and uses great care in this regard, as the success or failure of his business depends absolutely on the prices realized for the fruit. He must give the grower as good or better returns than his competitor or he will lose his business. The shipper assumes full financial responsibility, and in case of the failure of one of his agents, protects the grower against loss. We make a loading charge of 1 cent per package and a commission charge of 7 per cent on gross sales. The freight commission and loading charge cover the grower's expense in shipping his fruit.

We sell the materials needed for handling a fruit crop, including the packages in which the fruit is shipped. Practically all of them are sold on credit, payment being made at the end of the shipping season. It is also necessary for us to advance money to some growers to pay their help during the winter. These advances are usually secured by crop mortgages for the term of one or two years. The large amount of money that has to be advanced in this district is one of the greatest drawbacks to the business.

The ranches here are nearly all small and are each producing many varieties of fruit, and as certain markets demand certain kinds of fruit, where other markets will not take them, it requires infinite care in the distribution of the shipments. Each market has its favorite fruits, and we try to give each one the kinds for which it will pay the most money. It is necessary to give every car a good assortment of mixed fruit, as most markets will pay more for such a car than they will for a straight car of one variety.

Owing to uncertainty of the auction markets maintaining an even range of prices, we try to give every grower a wide distribution of his fruit. We have to use particular care in sending to a different market each day, with the exception of New York. This market has given practically uniform good prices for many years, and good fruit will sell there for a fair price at any time. During the shipping season we have at least one car a day to sell in New York.

After our cars are loaded and billed we forward the bill of lading and other papers to the California Fruit Distributors, Sacramento, Cal., who then take charge of the shipment.

**VACAVILLE FRUIT CO., VACAVILLE, CAL.**

By C. M. HARTLEY, Manager.

The Vacaville Fruit Co. is composed of 19 growers in this section of the country and incorporated under the laws of the State of California. We make advances to persons who may require assistance during the season and we handle the products of farms or orchards of all persons who desire to do business with us.

The fruit is packed on the ranches and brought to Vacaville, whence it is forwarded to various markets. Shipments are distributed in such a manner as to eliminate competition on arrival at destination as far as possible from like fruits received from Eastern States.

The cars are billed to the California Fruit Distributors, New York, or other destination. The distributors look after them while en route and on arrival, seeing that the fruit is properly displayed and catalogued. In due time we receive account of sales, also printed catalogue giving name of the grower, kind of fruit, and price realized for the same, and a check for the net proceeds.

Our company was incorporated in 1908, and has just completed its fifth season, and results have been very satisfactory to all interested parties.

#### VACAVILLE FRUIT GROWERS' ASSOCIATION, VACAVILLE, CAL.

By RAY RIPPEY, Manager.

The Vacaville Fruit Growers' Association, of Vacaville, Cal., was organized four years ago for the purpose of getting away from the middleman and saving the profits previously paid him. A membership fee of \$10 is charged. Prior to the organization of this corporation fresh fruit shipments from Vacaville, Cal., to eastern markets were handled by commercial organizations on a consignment commission basis. The growers were charged a high rate of commission, and in addition, these commercial companies would contract with box-lumber mills for the material used by the growers. This material would be retailed to the grower at retail prices averaging from 25 per cent to 30 per cent above cost to commercial companies. From year to year the commercial companies advanced the price of their materials or charges for commission until the fruit growers were deriving a bare living from the business.

Five fruit growers organized this association in order to save for themselves the enormous profits paid the commercial organizations. During the first year a saving of 25 per cent on supplies was realized, and reliable commission men and brokers were engaged to handle the products of the company in eastern markets, both at auction and private-sale markets. The services of three commission men and brokers were secured on a 4 per cent basis, a saving of 3 per cent compared with previous years.

The saving of 25 per cent on supplies and 3 per cent on the gross sales of fruit in eastern markets during the past four seasons was equivalent to \$50 per car net.

Supplies are bought at wholesale and are retailed to members. After the actual running expenses of the association for the season are paid the surplus is divided among the members pro rata in proportion to the gross proceeds from each member's shipments.

#### SURFACE CREEK FRUIT GROWERS' ASSOCIATION, AUSTIN, COLO.

By F. C. LUELLEN, Manager.

The Surface Creek Fruit Growers' Association, of Austin, Colo., is incorporated with a capital stock of \$25,000.

For the past four years we have been marketing our fruit through the California Fruit Growers' Exchange, paying them \$15 per car

brokerage. By this method our products receive personal attention of an experienced fruit man at the point of destination, cars are rejected only for good and sufficient reasons, collections are prompt, and we have no bad accounts on which collections are obtained with difficulty. Again, when it is necessary to forward cars which are unsold we are in a position to obtain reliable inspection reports while in transit, making it possible to divert these cars into markets where the best prices are to be obtained, and also have them arrive in good condition, which is very necessary in handling deciduous fruits.

It would be more desirable were there an organization of the nature of the California Exchange formed among the deciduous fruit associations; however, the opinions at this time among associations in Colorado differ very much and it will be several seasons before a project of this nature could be formed. As we ship some 200 cars each season, we would be in a position to maintain but a couple of good representatives in eastern cities, while under our present system we have representation in about 75 of the larger cities.

#### **BOULDER COUNTY FRUIT GROWERS' ASSOCIATION, BOULDER, COLO.**

By W. A. GROOM, Manager.

The Boulder County Fruit Growers' Association, of Boulder, Colo., sells about 10 per cent of the crop to local buyers for shipment to outside markets, consigns about 25 per cent direct to commission houses, and sells about 25 per cent direct to consumers in the home market. Other sales are made direct to retail dealers in near-by cities.

Marketing of produce goes through too many hands; first, to a commission house, then through broker to another commission house, then to retailer. Some commission houses in large cities distribute less-than-car lots among dealers in small towns. Some cars of fruit go direct to auction houses in large cities, where sales are made usually to retail merchants.

Middlemen buy and store but a very small quantity.

No sales at auction are made in the producing region, and no sales direct to consumers are made in outside markets. A small percentage of the crop is sold prior to harvest.

Grades, weights, and measurements are purely of a local character, but should be national.

The bulk of the crop is disposed of at harvest time, and a very small proportion is stored by the producer. It is thought that the producer should be prepared to hold his fruit when he desires to wait for higher prices.

The producers have no private storage. A considerable percentage of crop is stored in transit, remaining the property of the producer. Returns on stored produce are not made until the end of the storage season, in June or July. Storage and diversion points extend from Denver to the Lakes.

The producer knows but very little about the market and his returns are small. There is really no market news at the farm.

The cost of marketing from the producer to the consumer is about 50 per cent.



One difficulty in marketing is in avoiding a glut at one market when there is a scarcity at others. Moreover, freight rates and switching charges are too high.

GRAND JUNCTION FRUIT GROWERS' ASSOCIATION, GRAND  
JUNCTION, COLO.

By H. G. FLETCHER, Manager.

The Grand Junction Fruit Growers' Association, of Grand Junction, Colo., established over 20 years ago, is a stock company whose members are exclusively fruit growers in the Grand Valley.

The objects of the organization include the advancement of the growers' interests, the improvement of methods for producing and marketing deciduous fruits, and the segregation of the different varieties and grades of fruit at the shipping stations, so that each car might be loaded with the kind and grade of fruit suitable for the territory into which the car was to be sent.

The association furnishes its 1,000 members with all supplies necessary for the growing of their fruit, such as spraying machines, spraying material, boxes, paper, nails, etc., the cost of which is deducted from the proceeds of fruit shipments by the grower. In this way the grower is enabled to purchase his supplies at a reduction in price and without any cash outlay on his part.

Throughout the season eight or nine expert fruit men are employed to instruct the growers as to the proper methods of pruning, spraying, cultivating, irrigating their orchards, and picking, grading, and packing their fruit. All fruit is packed and prepared for shipment in the orchards. It is then delivered to one of the several shipping platforms, where an inspector examines a sufficient number of boxes in each load to determine the quality. The grower is given a receipt showing the number of boxes of the different varieties and grades that his load contains, and the fruit is then distributed and later loaded into cars for shipment.

The distribution and marketing is conducted from the main office at Grand Junction, Colo. It is thought that this is the only association in the United States marketing over 100 to 150 carloads which handles its own distribution and sales. The customary plan is for an association to arrange with commission men, or so-called fruit distributors or marketing agents, in the larger markets, to handle its products, the association inspecting, loading, and shipping the fruit, and the distributor designating the consignee. Reliable fruit brokers in the larger markets are employed as representatives, and they are furnished with price lists of the varieties and grades. Orders from these representatives are telegraphed or mailed direct to the main office at Grand Junction.

The consignment method of disposing of fruits is used only in cases of necessity, with the exception of a few dealers with whom the association has had satisfactory relations for a number of years. Sales are made to local buyers who are willing to pay the market prices for fruits f. o. b. cars at shipping points. At times it is found necessary for the association to use the auction markets, but these are resorted to only when other methods of disposing of the fruit are not possible or desirable. During the shipping season for perish-

able fruits, such as peaches or pears, telegraphic reports on market conditions are received from representatives in markets to which the association expects to ship these fruits.

Shipments are made direct to the consignee, with sight draft attached to the bill of lading covering amount of invoice. When the drafts are paid for a given consignment, the charges for freight, refrigeration, brokerage, and other items of expense are deducted by the association management from the gross proceeds, and of the net returns the organization retains 7 per cent and distributes 93 per cent among the individual members who contributed to the consignment. This 7 per cent constitutes the only charge made by the association for its services to the members. Settlement with each grower is not made for his particular fruit, but prorates are made covering shipments during a specified period. This gives each grower the same amount for the same grade and variety of fruit shipped. The entire proposition is merely a cooperative arrangement for the advancement and protection of the grower's interests.

Through this organization the growers are protected from persons who might want to purchase the fruit f. o. b. shipping point at less than market price, and also from unscrupulous dealers after the fruit has reached the market.

Two thousand cars of fruit might have been shipped during the present season (1912).

By marketing fruits in the manner outlined above one distributor is eliminated, as sales are made by the brokers direct to the dealers, who, in turn, sell to retailers.

#### ROCKY FORD MELON GROWERS' ASSOCIATION, ROCKY FORD, COLO.

By J. C. FLEMING, Secretary.

The Rocky Ford Melon Growers' Association, of Rocky Ford, Colo., was incorporated and organized for the purpose of promoting and encouraging the industry of melon growing, to secure fair prices for and to sell melons produced by the members of this association, to establish better markets and secure better shipping facilities, to purchase such supplies as are needed by its members, to raise the standard of melons and have the same reach the consumer in the best possible manner and condition, and to acquire buildings necessary for the use of the association.

The members of this association produce cantaloupes only, and shipments are made through a distributing agency. The agents keep the association informed daily as to the general market conditions and are paid  $12\frac{1}{2}$  per cent on the gross proceeds of sales.

The association pays the freight from loading station to the destination. Its office expense is about  $2\frac{1}{2}$  per cent of the net returns.

Cantaloupes are delivered at loading stations in three different sized crates known as "standard," "jumbo," and "pony." Their marketable quality is determined by the inspection of the shipping agent. The melons are marketed by the shipping agents in their own way—sometimes, in the large cities, by auction.

In 1912 shipping began on August 14, and the last car was shipped September 20.

Careful selection of seed, constant attention to the growing fruit, and rigid inspection at the loading stations are some of the elements of the success of this association.

Every member when delivering melons to the association for sale or otherwise is required to have his or her number or letter plainly stenciled on each crate, box, basket, barrel, or other package for the purpose of identification. No melons are received at loading stations unless they have been brought there "on springs"; this insures their reaching the market in sound condition.

#### CHASE & CO., JACKSONVILLE, FLA.

Chase & Co. is a firm which acts as growers' marketing agent in the sale of Florida fruits and vegetables.

We have been marketing Florida products for over 25 years. Our output has grown from a few cars each season until to-day we are the largest packing and marketing agency in Florida.

We have our own packing houses throughout Florida, in which the growers' fruit is packed for them at practically cost, considering the investment and overhead expenses. We also market the output of several large growers who have their own packing houses and who do their own packing, usually under the supervision of a foreman experienced in our methods and who is able to keep the grading and packing up to our standard.

Manifests covering all shipments are mailed to our office at Jacksonville as soon as cars are shipped. Transit circulars are then issued to our representatives in 85 of the principal car-lot markets throughout the United States and Canada.

Our representatives place these transit cars before their trade and work on this information in addition to our telegraphic shipping advices.

We do not consign any of our shipments, but sell the cars at definite prices. We sell either to spot buyers on the ground at shipping points, which sales are cash basis, buyer's transit risk; ship cars on "f. o. b. shipping point" orders; sell cars in transit on "f. o. b. shipping point" price basis; sell cars after arrival in markets located on main lines from which cars can be diverted on through rate and without undue delay; and also sell a reasonable proportion of our movement at auction in the large auction markets.

We are not tied up to any one method of selling, but are always willing to sell on terms which we believe will realize for growers the proper value for their products.

In addition to having our representatives located in different markets, we have inspectors at Jacksonville, Fla.; Waycross, Ga.; Cincinnati, Ohio; St. Louis, Mo.; Kansas City, Mo.; Chicago, Ill.; Minneapolis, Minn.; and Potomac Yards, Va.

Our sales department at Jacksonville, of course, can not see the fruit in every car shipped, but works from manifests covering all information in connection with cars. Our agent at loading point furnishes us with very complete inspection reports, describing the fruit in every detail. In order to handle each shipment intelligently and place cars in markets which can use the certain class of fruit to best advantage, we also receive telegraphic and mail inspection ad-

vices from our inspectors located at inspection points mentioned above.

Our success in establishing the largest organization of its kind in Florida has been done by always endeavoring to realize for the growers full value for their products and at the same time give our customers full value for their money.

We have from the beginning made it a rule to keep our packing houses up to date and to employ only reliable and the most competent help obtainable. This has not only resulted in our brands being popular in all markets, consequently drawing the business of the largest and best jobbers throughout the United States and Canada, but has enabled us regularly to return to our growers each season the highest average prices. We have demonstrated that by culling out fruit from each box which might have a value of 10 to 15 cents it is possible to realize on an average 20 to 25 cents per box more for the fruit from that crop.

The trade is willing to pay more for the same fruit if it is closely graded and the defective oranges, thrown away at shipping point. Consequently close grading, while meaning fewer boxes shipped by the grower, means a higher price per box for the fruit shipped and more money for his crop.

We made sales last season to 545 different jobbers, located in 210 different markets, in 46 different States. One can realize what a distribution of our shipment among 210 different markets means when he takes into consideration that the United States census for 1910 shows only 229 cities in the United States with a population of 25,000 and over and only 108 cities with a population of 50,000 or over.

Our success in realizing highest average prices for our growers has been brought about largely by a wide and intelligent distribution. We are not tied up to a few markets, but if certain cities are only willing to pay a certain price for supplies and we are able to obtain higher prices from other cities, we are in position to sell our shipments to the highest markets and stay out of the lower until proper prices are offered.

**FLORIDA VEGETABLE GROWERS' ASSOCIATION, SANFORD, FLA.**

By C. M. BERRY, Secretary.

The Florida Vegetable Growers' Association, of Sanford, Fla., markets about 400 cars of lettuce and celery annually, and has been in operation for two seasons.

About 20 per cent of our produce is sold for delivery at local shipping point, and the rest is handled by the North American Fruit Exchange on a brokerage basis. This exchange sells to commission houses, jobbers, and, in a few cases, to retailers, and charges our producers 15 cents per package for the service of marketing.

This association makes no sales direct to consumers, and none prior to harvest.

The lettuce and celery crops of this section are shipped during a long season, extending from November 15 to May 1.

The most difficult problem we growers have in marketing is the question of high charges for freight and refrigeration.

Our desire is to get in closer touch with the consumer, and we hope for more success in the future.

## FLORIDA CITRUS EXCHANGE, TAMPA, FLA.

Summarized from booklet furnished by WILLIAM CHASE TEMPLE, General Manager.

The Florida Citrus Exchange is a nonprofit, cooperative corporation, having general offices at Tampa, Fla., and members in every important fruit-producing section of that State. The function of the exchange is that of general sales agent for its various constituent organizations. The whole scheme of organization is one of "wheels within wheels." The individual growers form local associations, groups of which unite in their respective districts to form subexchanges; which in turn compose the exchange itself. The grower tenders his fruit to the local association on the trees and in a proper condition for marketing.

The local association picks, hauls, and packs the fruit and puts it in the cars ready for shipment. The subexchange takes the car, as forwarding agent for the association, and places it in the hands of Florida Citrus Exchange. The exchange distributes, sells, collects the money for the fruit, and turns the proceeds over to the subexchange, which in turn distributes to its local associations.

The subexchange is managed by directors, one of whom is elected from each association affiliated with the subexchange; and the directors of the exchange are selected from each subexchange.

Our general organization has five departments: Executive, sales, financial, transportation and claims, and statistics. These departments are in charge of separate managers acting under the direction of the general manager, who in turn is responsible to the board of directors.

The exchange transacts business with the subexchanges, but not with local associations or individual growers, and the subexchanges deal directly with the local associations, which are composed of individual growers. The association is responsible to the grower for his fruit from the time it is picked from the tree until it is loaded in cars ready for shipment; the subexchange is responsible to the association for the fruit from the time it is loaded into the cars until it is sold, and payment is made to the association. The subexchange, on the other hand, is responsible to the exchange itself for the quality and condition of the fruit, and also for grading, packing, and loading.

The United States and Canada are divided, by our exchange, into sales districts, in each of which we have a representative, or sales manager. These managers are required to handle exchange business exclusively.

Orders are secured from the trade, as far as possible, on an f. o. b. basis in private sales markets. When it is not possible to sell for delivery at shipping point, f. o. b., orders are accepted on terms which include delivery at destinations. The aim of the sales department is to secure all possible business on the best terms obtainable, and to insure the widest possible distribution and consumption.

In all cases in private-sales markets prices are named from the general office at Tampa. These are determined daily from data received by telegraph from all the markets. When there is a decline in the prices the exchange usually consults the shipper, when he can be

reached, before a lower price than the exchange quotation is accepted for a given lot of fruit.

In the largest markets in the country our fruit is marketed through auction sales. At each of these points the exchange has its salaried representative, who receives the fruit, delivers it to the auction company, inspects it when it is opened, exhibits it for sale, determines the quantity offered at any one sale, and retains control of the fruit until it is sold. Auction sales are made from a catalogue which is a duplicate of the manifest sent by the shipper. Bidding at these auctions is generally very free, as no buyer has to overload himself and may renew his stock from day to day. This insures the keenest competition, and experience has demonstrated that fruit sold at auction increases distribution and consumption from 3 to 10 fold, while prices are as good for large quantities sold at auction as for smaller lots at private sale. The auction brings the grower nearer the consumer than any other method.

A statement reporting quantities of fruit in transit, receipts at markets, stocks in hand, sales, prices, and other market news is issued daily, in printed form, by our general office. The information contained in this bulletin is supplied by the district managers.

Immediately upon the arrival of a car at destination the district manager inspects the same and reports to the general office by wire. In each auction market the district manager keeps a record of every box of Florida citrus fruit sold there, by whom sold, and its price, in order that at any time he may be able to furnish the general office at Tampa with a statement of the business done in his market. Similar data are collected by district managers at trade centers where there are no fruit auctions. Prices and expenses of operation in the various sales districts are compared in daily, weekly, and monthly statements. Prices received by competitors in various districts can also be furnished. From returns received by the various subexchanges the proper time for shipment at different periods of the season can be determined. It is also possible to determine what price an established brand brings compared with similar fruit of equal quality but without a brand. From the shipping records may also be determined the date of shipment for an individual car, car number, date and place of sale, average selling price, net returns to exchange, routing of car, length of time en route, whether a claim is filed or not—in short, a complete record of the transaction.

Strictly speaking, a "f. o. b." sale implies delivery "free on board" cars at shipping point, the money being paid before the car is moved. But "f. o. b. sales, usual terms," are generally understood to mean sales subject to inspection and approval by the buyer on arrival at destination. As a general thing f. o. b. sales, usual terms, are accepted by this exchange when the market is strong or steady. It is practically impossible to pack a car of oranges so that a flaw can not be picked in it, and a keen-eyed buyer will detect this flaw very quickly. If there is no fault he will imagine one.

Sales on f. o. b. terms are desirable to the grower when they can be made for cash before shipment, which is very rare; or when supplies are not large and there is but little risk of a buyer rejecting a car simply because of a fall in prices the grower may find it advantageous to sell on "f. o. b., usual terms," giving the consignee the privilege of rejecting the car after it reaches him.

But f. o. b. business will not expand markets to any great extent. With increasing crops there must be a larger distribution and consumption, and competition from other orange-growing sections renders it necessary for the exchange to depend upon placing cars on any terms possible so long as the price is fair. When stocks are diminishing and prices advancing a f. o. b. sale means a positive loss to the grower. Under these conditions transactions made subject to prices prevailing when the fruit is delivered at destination are more desirable, for the shipper gets the advantage. A f. o. b. sale gives the buyer the benefit of the doubt, as he accepts the fruit on an advancing market and refuses on a declining market, the shipper taking the loss in either case. A "delivered" sale is the reverse; the seller takes the market as he finds it. Many f. o. b. sales are made and are rejected on arrival, the shipper suffering a heavy loss because the buyer is indisposed to make a reasonable adjustment, fearing that he will be charged with rejecting the car for the purpose of squeezing the seller. On the other hand, the buyer might accept the faulty car at a reasonable price if it was a "delivered" sale, for he would then be relieved of any suspicion of unfair dealing with the seller.

Approximately 50 per cent of the cars shipped by the exchange are diverted en route. Great care is exercised in the selection of transportation service that will enable the exchange to keep informed of the progress of its cars while they are en route, to have them pass over lines which offer the greatest radius of action from a distributing standpoint, and to confine the shipments as much as possible to those lines which pay the closest attention to the details of efficient service. Among the items of efficient service on the part of transportation companies are quick, careful, and intelligent attention to the diversion of cars; prompt notices regarding diversions, good terminal facilities, prompt interchange of cars with connections, protection of fruit against climatic conditions, courtesy to representatives of the shippers, prompt adjustment of claims, the furnishing of information when requested, and the arrangement of schedules to connect closely with those of other lines. It is natural that transportation companies who handle as great amount of tonnage of any one kind of commodity are able to run solid trains and to better expedite their movement than the lines which handle but a few cars and at infrequent intervals.

A list of subexchanges and associations follows:

LIST OF SUBEXCHANGES AND LOCAL ASSOCIATIONS CONSTITUTING THE FLORIDA CITRUS EXCHANGE OF TAMPA, FLA., AND INDEPENDENT ASSOCIATIONS MARKETING THROUGH THE EXCHANGE.

*Dade County Citrus Subexchange, Miama, Fla.*

Cocoanut Grove Citrus Growers' Association, Cocoanut Grove, Fla.

*De Soto County Citrus Subexchange, Wauchula, Fla.*

Arcadia Citrus Growers' Association, Arcadia, Fla.

Avon Park Citrus Growers' Association, Avon Park, Fla.

Bowling Green Citrus Growers' Association, Bowling Green, Fla.

Fort Ogden Citrus Growers' Association, Fort Ogden, Fla.

Gardner Citrus Growers' Association, Brownsville, Fla.

Punta Gorda Citrus Association, Punta Gorda, Fla.

Wauchula Citrus Growers' Association, Wauchula, Fla.

Zolfa Citrus Growers' Association, Moffits, Fla.

*Highland Citrus Subexchange, Tavares, Fla.*

Emerald Citrus Growers' Association, Emerald, Fla.  
 Eustis Citrus Growers' Association, Eustis, Fla.  
 Lake Region Packing Association, Tavares, Fla.  
 Mount Dora Citrus Growers' Association, Mount Dora, Fla.  
 Sorrento Citrus Growers' Association, Sorrento, Fla.  
 Tangerine Citrus Growers' Association, Tangerine, Fla.

*Hillsboro Citrus Subexchange, Tampa, Fla.*

Balm Citrus Growers' Association, Balm, Fla.  
 Brooksville Citrus Growers' Association, Brooksville, Fla.  
 Keystone Park Citrus Growers' Association, Odessa, Fla.  
 Keysville Citrus Growers' Association, Keysville, Fla.  
 Lakeland Citrus Growers' Association, Lakeland, Fla.  
 Limona Citrus Growers' Association, Limona, Fla.  
 Plant City Citrus Growers' Association, Knights, Fla.  
 San Antonio Citrus Growers' Association, St. Leo, Fla.  
 Tampa Citrus Growers' Association, Tampa, Fla.  
 Thonotosassa Citrus Growers' Association, Thonotosassa, Fla.

*Manatee County Citrus Subexchange, Bradentown, Fla.*

Bradentown Citrus Growers' Association, Bradentown, Fla.  
 Miakka Citrus Growers' Association, Miakka, Fla.  
 Manatee Citrus Growers' Association, Manatee, Fla.  
 Oneco Citrus Growers' Association, Oneco, Fla.  
 Palma Sola Citrus Growers' Association, Palma Sola, Fla.  
 Sarasota Citrus Growers' Association, Sarasota, Fla.

*Orange County Citrus Subexchange, Orlando, Fla.*

Gotha Citrus Growers' Association, Gotha, Fla.  
 Ocoee Citrus Growers' Association, Ocoee, Fla.  
 O. K. Grove Citrus Growers' Association, Clarcona, Fla.  
 Orlando Citrus Growers' Association, Orlando, Fla.  
 Oviedo Citrus Growers' Association, Oviedo, Fla.  
 Plymouth Citrus Growers' Association, Plymouth, Fla.  
 South Lake Apopka Citrus Growers' Association, Oakland, Fla.  
 Winter Garden Citrus Growers' Association, Winter Park, Fla.  
 Winter Park Citrus Growers' Association, Winter Park, Fla.

*Pinellas Citrus Subexchange, Clearwater, Fla.*

Largo Citrus Growers' Association, Clearwater, Fla.  
 Clearwater Citrus Growers' Association, Clearwater, Fla.  
 Ozona Citrus Growers' Association, Ozona, Fla.  
 St. Petersburg Citrus Growers' Association, St. Petersburg, Fla.

*Polk County Citrus Subexchange, Bartow, Fla.*

Auburndale Citrus Growers' Association, Auburndale, Fla.  
 Bartow Citrus Growers' Association, Bartow, Fla.  
 Eagle Lake Citrus Growers' Association, Eagle Lake, Fla.  
 Florence Citrus Growers' Association, Florence Villa, Fla.  
 Fort Meade Citrus Growers' Association, Fort Meade, Fla.  
 Homeland Citrus Growers' Association, Homeland, Fla.  
 Haines City Citrus Growers' Association, Haines City, Fla.  
 Lake Region Citrus Growers' Association, Frost Proof, Fla.  
 Winter Haven Citrus Growers' Association, Winter Haven, Fla.

*Volusia County Citrus Subexchange, De Land, Fla.*

De Land Citrus Growers' Association, De Land, Fla.  
 Emporia Citrus Growers' Association, Emporia, Fla.  
 Lake Helen Citrus Growers' Association, Lake Helen, Fla.  
 Orange City Citrus Growers' Association, De Land, Fla.

*Independent associations.*

Alva Citrus Growers' Association, Alva, Fla.  
 Crescent City Citrus Growers' Association, Crescent City, Fla.  
 Lake Como Citrus Growers' Association, Lake Como, Fla.  
 Owanita Citrus Growers' Association, Owanita, Fla.  
 Pomona Citrus Growers' Association, Pomona, Fla.



**BOISE VALLEY FRUIT GROWERS' ASSOCIATION, BOISE, IDAHO.**

By S. D. SMITH, Manager.

The Boise Valley Fruit Growers' Association is a growers' cooperative society making an honest effort to put on the market fruit of a uniform pack and of a high grade, believing this to be fundamentally essential in distribution of its product. To this end grading rules have been made, and each individual member who ships through the association is required to enter into a contract giving the organization full power to oversee the grading and packing of his fruit.

This year we have entered into contract with a reliable selling agency to distribute our fruit on a 7 per cent basis, but we reserve the right to sell any or all of the fruit for cash, f. o. b. shipping point. Should any member desire to consign to other commission merchants and not to market through the association, he may do so by paying a penalty of 5 cents a box on all fruit so consigned.

Some of our fruit is sold at auction in the larger cities, while a great many cars of the good-keeping varieties are placed in storage for future sales.

**LEWISTON ORCHARDS ASSOCIATION, LEWISTON, IDAHO.**

By H. H. S. ROWELL, Secretary.

The Lewiston Orchards Association, of Lewiston, Idaho, is a cooperative body of growers organized as a stock company for the purpose of providing a central selling agency for the agricultural and horticultural products grown by its members.

For the mutual benefit of all parties concerned the acquiring of any interest in the capital stock of the corporation has been confined to owners and lessees of lands in Lewiston orchards and contiguous territory, on the basis of one share of stock for each acre of land owned and operated.

To prevent any possible monopoly of stock all stock certificates are placed in trust and trust certificates issued in lieu thereof, with no power of transfer except with transfer of the land, all stock to go with the land.

The oldest orchards in the district are now in their sixth season, and this is the first commercial season. Though not organized until April 1, 1912, 700 shares of stock were taken before October, which shares represent as many acres of orchards, or the major portion of commercially bearing orchards.

A central packing house was built at a cost of \$1,500 and equipped for the handling of all kinds of fruit and produce. As new orchards come into bearing, additional packing houses will be built at convenient points, and plans are under way for the building of railway lines into the district, so that cars may be loaded direct from the packing houses. At present fruit shipments are transported by auto trucks 4 miles to the cars.

The association aims to establish a uniform system of grading the fruits marketed or shipped for its members and to exercise such supervision over the picking, packing, and grading of fruit as shall insure to the purchaser that all fruit handled by the association

shall be of the class and quality represented and marked on the boxes. It is also empowered to buy, rent, build, acquire, own, and operate packing houses, warehouses, precooling plants, ice factories, cold-storage plants, canneries, dryers, by-product factories, offices, and other buildings that shall be necessary for carrying on the business of the association, and to purchase supplies for its members.

Fruit is harvested by the growers and delivered at the packing house where it is handled by the association. Thus far other organized agencies have been employed for selling purposes.

For the conservation of what is usually wasted or lost the association is seeking to establish at the earliest possible date an evaporating plant, with which it is expected to utilize the otherwise unmarketable fruit. This evaporated fruit it is expected will yield a profit to the grower equivalent to the entire cost of producing all his fruit.

The promoters of the association feel that no other institution can do more for the industrial success of the community, which has exceptionally favorable conditions for the successful development of such an organization, the essential requirement being the cooperation of all growers in the district.

During the first season over 20 carloads of fruit have been handled by the association for its members. It is estimated that the output from the district within five years will reach an aggregate of 5,000 carloads annually, as by that time there will be fully 6,000 acres of bearing orchards in the district.

Packing boxes are bought by the association in carlots. The growers are charged for boxes, packing, drayage, loading, and marketing, with a small additional sum to cover incidental expenses; all receipts and expenses are prorated among the growers according to the quantity of fruit handled for them.

Despite some unfavorable conditions peculiar to the season, and some difficulties incidental to the beginning of such a work, there is firm and growing confidence in the organization.

#### ARTICLES OF INCORPORATION OF LEWISTON ORCHARDS ASSOCIATION, LIMITED, OF LEWISTON, IDAHO.

##### ARTICLE I.

The name of this corporation shall be the Lewiston Orchards Association, Limited.

##### ARTICLE II.

The purposes for which this corporation is organized are to engage generally in the business of buying and selling fruit, vegetables, and produce of every kind, nature, and description, especially that raised in the district in Nez Perce County, Idaho, known as the Lewiston Orchard Tracts, on a commission basis.

To enable this corporation to carry out the purposes for which it is organized it shall have the powers; and the purposes of its organization shall be:

1. To act as the agent and representative of any farmer, fruit grower, or horticulturist in securing a market and marketing, selling, or disposing of any and all products grown or produced by them.

2. To establish a uniform system for grading the fruits marketed or shipped by this association for its customers and to exercise such supervision of the picking, packing, and grading of fruit as shall insure to the purchaser that all fruit handled by this association shall be of the class and quality represented and marked on the boxes.

3. To supply to its customers all merchandise, material, and supplies needed by them in connection with the growing and marketing of their fruit and produce and to supply them with labor and help necessary to raise, harvest, and market any and all products which may be grown by such individuals.

4. To buy, rent, lease, acquire, and improve such real estate as may be necessary or required in the business of the association or which may be deemed advantageous for the association, and to sell, lease, mortgage, release, manage, and control the same.

5. To buy, rent, lease, build, acquire, own, and operate packing houses, warehouses, precooling plants, ice factories, cold-storage plants, canneries, dryers, by-product factories, offices, and other buildings that shall be necessary for carrying on the business of the association, or which the directors of the association may deem it advantageous for the association to own, acquire, or control, and to sell, lease, mortgage, release, handle, and dispose of the same.

6. To acquire, construct, own, and operate such means of transportation as may be necessary in connection with the business of the association or to enable it properly to carry out the powers herein given it.

7. To purchase, own, handle, sell, and deal in all kinds of machinery, tools, box material, spray material, and other materials and supplies necessary to be used in growing and marketing of fruits.

8. To buy, sell, acquire, hold, lease, mortgage, bond, release, and handle all kinds of property, real, personal, or mixed, that may be necessary or convenient in carrying out the purposes of the association, or that may be deemed advantageous to the association by the directors thereof.

9. To cooperate with or become a member of any State, interstate, or national organization, organized for the same general purposes as this.

10. To borrow money and secure the payment of the same by bond, mortgage, hypothecation, or pledge of any property, real, personal, or mixed, belonging to the association, or by pledge or hypothecation of any stocks, bonds, or other paper or collateral belonging to the association and under its control, and to issue all bonds, debentures, or other evidences of indebtedness deemed necessary by the board of directors to meet and discharge its obligations or advance and promote the lawful purposes of its creation, and execute and acknowledge any and all mortgages, deeds of trust, etc., necessary to secure the payment of the principal and interest of any notes, bonds, or other obligations given by the association.

11. To advance and loan money to the stockholders of the association, and to assist them in every way practicable in carrying out the business of fruit growing.

12. To make and enter into contracts with its stockholders or other persons and do any and all other acts and things necessary to carry out the purposes for which this corporation is organized, and to exercise any and all power and do all acts which an individual or copartnership could or might do or which may be authorized by law.

#### ARTICLE III.

The place where the principal business of this corporation is to be transacted shall be on the Lewiston Orchard tracts in the county of Nez Perce, State of Idaho.

#### ARTICLE IV.

The term for which this corporation is to exist shall be for a period of fifty years.

#### ARTICLE V.

The number of directors of this corporation shall be seven.

#### ARTICLE VI.

The amount of the capital stock of this corporation shall be the sum of twenty-five thousand (\$25,000.00) dollars, divided into five thousand shares of the par value of five (\$5.00) dollars each.

\* \* \* \* \*

## BY-LAWS OF LEWISTON ORCHARDS ASSOCIATION (LTD.), OF LEWISTON, IDAHO.

## ARTICLE I.

The officers of this association shall consist of a president, vice president, secretary, and treasurer, who shall, with the exception of the secretary and treasurer, be chosen by the directors from among themselves.

## ARTICLE II.

SEC. 1. A board of directors shall be elected at the annual meeting of the stockholders. The directors elect shall serve for one year and until their successors are elected and qualified.

SEC. 2. Any stockholder in good standing in this corporation shall be eligible for election as a member of the board of directors.

## ARTICLE III.

President: The president shall be the executive officer of the association and shall preside at all meetings of the stockholders and board of directors. He shall, with the secretary, sign all certificates of stock, deeds, mortgages, contracts, and other instruments and conveyances incumbering the property of the association when so directed by the board of directors and shall perform such other duties as may be required by law or by the by-laws of this association or by the board of directors thereof. He shall call meetings of the members and directors and as hereinbefore provided.

He shall be the custodian of all bonds executed by an officer, agent, or employee of the association, except as to his own bond, if any, which shall be deposited with the secretary.

## ARTICLE IV.

Vice president: The vice president shall perform the duties of the president in case of his absence, disability, death, or resignation.

## ARTICLE V.

Secretary: SEC. 1. It shall be the duty of the secretary to attend all meetings of the members and directors of the association and keep a full and complete record thereof and of all membership certificates, conveyances, etc.

SEC. 2. He shall have the custody of all records, books, and papers of the association and shall, with the president, sign all certificates of stock issued and make the proper entry on the margin of the certificate book or stub of such issuance. He shall keep a proper transfer book and ledger showing the number of shares of stock issued and the transfer thereof. He shall make to the board of directors any report or statement of the condition of the association required by the board and shall prepare any annual statement to be made by the board of directors to the members. Upon retiring from office he shall turn over to his successor within five days thereafter all records, books, and papers of the association.

SEC. 3. He shall have the custody of the seal of the association and shall affix the same to all documents requiring it and shall perform the usual duties of his office and shall receive such compensation for his services as the board of directors may provide. During the absence of the secretary his duties may be performed by such persons as may be designated by the directors as assistant secretary, who shall have all the powers of the secretary.

## ARTICLE VI.

Treasurer: SEC. 1. It shall be the duty of the treasurer to receive and keep all moneys of the association and to disburse the same by order, check, draft, or other voucher as authorized by the board of directors. He shall keep a correct account of all moneys received and paid by him and so often as required by the directors shall render to them a full account of the business of his office with proper vouchers for their information.

SEC. 2. The treasurer of the association shall keep the funds of the association in such depository or depositories as the board of directors shall direct, and shall give bond in such sum as required by the directors for the faithful performance of the duties of his office, which bond shall be furnished by a surety company selected by the board of directors, the premium therefor to be paid by this association.

#### ARTICLE VII.

Management: The affairs of this association shall be managed and directed by a board of seven directors, the same to be elected at the annual meeting of the association and to hold office for the term of one year and until their successors are elected and qualified; provided the directors elected by the members of the association prior to and preliminary to incorporation shall hold office until their successors are elected at the next annual meeting.

The directors shall immediately on the organization of this corporation elect from their number a president and vice president of the association, and shall appoint or elect a secretary and treasurer, which offices may be combined in the same individual.

Any and all directors, when once elected or appointed, shall hold office until their successors are elected and qualified, unless removed by a vote of two-thirds of all the members of the association in a meeting duly and regularly assembled and upon charges preferred, or they shall become disqualified as hereinafter provided.

#### ARTICLE VIII.

Board of directors: SEC. 1. Every member of the board of directors of this association shall be a duly elected and qualified member of this association. No one shall be elected a director who is disqualified by any of the provisions of section 9 of this article.

SEC. 2. The board of directors shall meet each year immediately after the close of the stockholders' meeting, and shall qualify and immediately proceed to elect from their own number a president and vice president of the association and shall elect or appoint a secretary and treasurer, who may be the same person, all of whom shall hold office until the next annual meeting after the date of their election and until their successors are elected and qualified, unless sooner removed, as provided in the by-laws.

Such employees of this association as shall have charge of the packing, grading, and marketing of the fruit grown by the members thereof and keeping the accounts in relation thereto shall be employed under the rules and regulations established by the directors of the association.

SEC. 3. The board shall require any officer, agent, or employee handling funds of the association to give bond for the faithful performance of his duties in such amount and in such manner as the directors may determine.

SEC. 4. The board of directors shall exercise the general powers of the corporation and manage and control the affairs thereof. They may make rules not inconsistent with the laws of the Nation, State, or with the by-laws of the association for the guidance of the affairs, business, and management thereof. They may, on a majority of the votes of all of the directors, discharge any officer of the association. Demand from any officer of any of the books, papers, documents, or records pertaining to the business of the association for examination or other purposes may be made by the directors at any time.

SEC. 5. The board of directors shall fill all vacancies that may occur in the offices of the association, and in case of a vacancy in the board of directors the same shall be filled by appointment by the remaining members of the board, said appointee to hold office until a meeting of the stockholders of the association, at which time the vacancy shall be filled by election by the members thereof. In case all the members of the board resign or become disqualified or their places become vacant a special meeting of the stockholders of the association shall immediately be held to elect a new board.

SEC. 6. All conveyances of property, contracts, and other instruments necessary to be executed under seal of the association shall be executed by the president or vice president and secretary of the association, but only on the authorization or approval of the majority of the directors. All of the property of the association may be sold or mortgaged by authorization of two-thirds vote of all the members of the association.

SEC. 7. The directors shall hold a regular annual meeting for the election of officers and the transaction of such other business as may come before the meeting immediately after the annual meeting of the members on the second Tuesday of January of each year. They shall hold such other meetings as they shall determine. Special meetings may be called at any time by the president, or in his absence by the vice president, upon giving due notice thereof to all the directors, and such special meeting shall be called at any time upon the request of two directors. Notice of all special meetings to be given to each director in person or by mailing a call for such special meeting to each director, at his address, five days before the date of such meeting. Such meeting shall be held at the office and place of business of the association unless otherwise ordered by the board. At meetings of the board of directors all motions and resolutions shall be passed on viva voce vote, the vote of each director on the question to be entered in the minutes, and all proceedings of the board shall be legally kept and verified by the signature of the secretary.

A majority of all the members of the board shall constitute a quorum at all meetings. A majority of the resident stockholders of Lewiston orchards shall constitute a quorum of the association. Less than a quorum may meet and adjourn from day to day. This rule shall also prevail in both the director and the membership meetings.

SEC. 8. The officers and directors shall be reimbursed from the treasury of the association for railroad fares and hotel bills incurred by them in attending any meeting or while employed in the business of the association by the majority of the board.

SEC. 9. No officer or director of this corporation shall hold any office or position in the employ of any other fruit growers' association or other similar organization or firm engaged in the same line of business as this corporation in competition therewith or for profit. No person shall be eligible to hold office as an officer or director of this corporation who shall be directly or indirectly engaged in or representative of any fruit or produce commission house, and any officer or director engaging in such business or accepting such position shall thereby become disqualified, and such disqualification shall operate without further action as a resignation and surrender by said person of the office which he holds in this corporation. If any officer or director of this association shall cease to be a fruit grower he shall ipso facto cease to be a director of this association.

Whenever knowledge or proof shall come to the president of this association that any officer or director has become disqualified as aforesaid, the president shall immediately declare the office of such officer or director vacant and notify the directors of such vacancy, and thereupon the position held by such officer or director shall be vacant unless, within twenty days from the date of such notification, he shall produce proof satisfactory to the board of directors that he is not disqualified.

SEC. 10. No director of this corporation shall be allowed to hold any office or position in the employ of this association other than president, vice president, member of the executive committee, secretary, or treasurer; nor shall the manager hold any other position in this corporation other than that of manager.

#### ARTICLE IX.

Stockholders: SEC. 1. Realizing that it is to the best interests of this association and of the stockholders thereof to confine the acquiring of any interest in the capital stock to individuals who are owners or lessees of lands in the Lewiston orchards district and contiguous districts in the county of Nez Perce, State of Idaho, which are set to any kind of merchantable fruits or on which are grown horticultural or agricultural products, the board of directors of this association are hereby restricted in the sale of any interest in the capital stock thereof to individuals who have the qualifications as above set forth.

SEC. 2. All stock shall be sold on the basis of one share for each acre of land owned by the subscriber as above set forth, owners of five or less acres to subscribe for one share for each acre of land, owners of more than five acres to subscribe for and pay for the additional shares when their orchards become four years of age or there shall be crops raised thereon to be marketed by the association. Provided, however, the board of directors shall not sell to any one individual more shares than he has acres of land, as above described.

SEC. 3. As a part consideration for the sale and transfer of any interest in the capital stock of this association, the board of directors shall require as a condition, precedent to said sale, that the purchaser shall enter into a contract with the corporation as follows:

(a) He shall by said contract appoint the Lewiston Orchards Association as his agent and representative to sell all fruits grown by him for sale or shipment and shall enter into a binding contract in the form required by the said association for sale by the Lewiston Orchards Association as his agent, all fruits raised by him for sale or shipment. Said contract to run continuously; provided, however, that the grower may cancel said contract on March 1st of any year by giving notice in writing to the president of the Lewiston Orchards Association at least twenty days prior to said date that he desires to cancel his contract. Upon giving such notice the grower shall, prior to said first day of March, pay any indebtedness due from him to the association and deliver his copy of the contract to said president, and the same shall thereupon be canceled. Sixty days' prior notice shall be given the manager of the corporation of the desire of any stockholders to have the corporation handle his crop of berries, cantaloupes, or watermelons.

(b) He shall agree, in said contract, to conform to all the rules and regulations of the association as to grading and packing his fruit or to turn over to the association to be packed, all fruit raised by him, or to allow the same to be packed under the supervision of some one appointed by the association.

(c) He shall further agree that if the directors of this association deem it necessary he will, on demand of them, turn over to the association his promissory note, executed by himself and wife, in an amount equaling \$10.00 per acre for all orchard lands which he may own or operate and which are set to fruit trees, said note to be held by the directors, to be used by them as a collateral with which to float bonds, borrow money, or establish credit for carrying on the business of this association; said note not to be used for any other purpose than that above stated, and to be returned to the maker whenever in the opinion of the directors of this association it shall have acquired assets or established a credit which will enable it to successfully carry on its business without the use of said note.

While said note is in the possession of the association it may be used as collateral, and any party holding said note as collateral shall be deemed the holder thereof in due course and for value.

If a stockholder ceases to own stock in the association, his note shall be returned. If at the time of his ceasing to be a stockholder his note is held by anyone as collateral, he shall not be entitled to a return thereof until the note is released by such holder.

(d) At the time of subscribing for stock in this corporation the applicant shall enter into an agreement to at once convey the legal title thereof to a designated trustee, who shall hold the same while the applicant retains the qualifications as to ownership of land, etc., as set forth in section 1 of Article IX of these by-laws. On the applicant conveying his land, the stock to be conveyed to the grantee by the trustee or canceled, at the option of the applicant.

*Provided, however,* Nothing herein shall be construed to bar the right of each subscriber for stock to cast as many votes as he has shares subscribed for at any meeting of the stockholders of this corporation.

SEC. 4. Whereas the power of this corporation to render efficient and valuable service to its stockholders is dependent on the support received by it from them, particularly as to a strict compliance with the provisions of the contract as set forth in sections 2 and 3 of Article IX, the board of directors hereof, as a further condition precedent to the issuance of any of the capital stock of the corporation, shall require of the applicant a written agreement to the effect that the violation of the provisions of sections 2 and 3 of Article IX of these by-laws will result in damage to the corporation, and as liquidated damages for such breach the stockholder will convey to the corporation his stock therein and all payments made thereon and cease to be a stockholder thereof.

#### ARTICLE X.

Annual meeting: The annual meeting of the stockholders of the association shall be held on the second Tuesday in January of each year at Lewiston Orchards, in the State of Idaho, and at said meeting any person holding stock in this association, either in trust or otherwise, shall be privileged to be present, and there shall be presented at such meeting by the directors a full and de-

tailed report of all the business and affairs of the corporation and of things done by it and by its board of directors during the preceding year.

Special meetings of the stockholders of the association may be held at any time upon the call of the president. The president shall call a special meeting of the stockholders at any time he is instructed so to do by the majority of the directors or upon request in writing of one-fourth of the stockholders of the association.

Notice of the time and place of all meetings shall be given by mailing such notice to the stockholders at their last known address, as appears upon the books of the corporation not less than twenty days before such meeting.

Each person holding an interest in the association and who has complied with Article IX of these by-laws shall be entitled to one vote for each share of stock in which he has an interest and no more at all meetings of the members of the association: *Provided, however,* That if any member shall cancel his selling contract, as provided in these by-laws, he shall not be entitled to vote at any meeting or have any voice in the affairs of the association until he enters into another selling contract. At any meeting of the members of this association any qualified member may be represented by proxy, which proxy shall be in writing and shall be filed with the secretary prior to the organization of such meeting.

#### ARTICLE XI.

Corporate seal: The corporate seal of this association shall bear the inscription "Lewiston Orchards Association, Corporate Seal."

#### ARTICLE XII.

Amendment of by-laws: These by-laws may be amended or repealed, or others added hereto, at any regular meeting of the association or a special meeting called for such purpose, which purpose and proposed change in the by-laws shall be set forth in a notice calling such special meeting.

\* \* \* \* \*

### MILK PRODUCERS' ASSOCIATION, CHICAGO, ILL.

By JAMES P. GRIER, Secretary.

The Milk Producers' Association, of the Chicago dairy district, is a voluntary association of milk producers, organized as an Illinois corporation, and is not for pecuniary profit. Its membership of about 3,000 is made up of milk producers from the States of Illinois, Wisconsin, and Indiana.

The purpose of the organization is to promote the best interests of the milk producers, particularly by enlarging and stimulating the markets for milk products. It is primarily formed for milk producers whose products find a market in the city of Chicago, where 30,000 8-gallon cans of milk and cream are consumed daily. Besides the milk producers whose products are sold in the Chicago market, there are many members who sell their milk to a number of large condensed-milk factories in the district, and also to butter creameries. About 50 per cent of Chicago's milk supply is furnished by the milk producers who sell their product to the large bottling plants whose factories are located in the country districts.

The leading buyers of milk in this field are the Borden Condensed Milk Co., which has about 20 bottling and condensing plants, and the Bowman Dairy Co., which has about 10 bottling plants scattered throughout the district. There are several minor bottling plants, such as the Kee & Chappell Dairy Co., Ira J. Mix Dairy Co., Sidney Wanzer & Sons, and Forest Glenn Creamery.



The Milk Producers' Association, strictly speaking, has no independent means of marketing products of its members. This, however, is one of the aims of the association, and it is hoped will be developed within the near future. At present the milk producers of the Chicago dairy district are at the mercy of the large buyers of milk, who fix arbitrarily the price to be paid the producers in both the summer and winter seasons.

The other 50 per cent of Chicago's milk supply comes from the milk producers in the dairy districts who ship their milk in 8-gallon cans to the so-called "independent" or small milk dealers in the city of Chicago. On this milk the producers prepay the freight, which averages in the Chicago district about  $16\frac{1}{2}$  cents per 8-gallon can. The milk is delivered at the railway platforms in Chicago, where the small dealers call for it in their wagons, take it to their dairies, bottle it, and distribute it among their customers. The price paid to the milk producers in this district during the summer six months beginning April 1, 1912, was \$1.26 $\frac{2}{3}$  per 100 pounds (48 quarts), being an average of  $2\frac{5}{8}$  cents per quart net to the producer, delivered at the companies' bottling plants. The price paid and to be paid for the six months' winter period, beginning October 1, 1912, is \$1.70 per 100 pounds, or  $3\frac{1}{2}\frac{3}{4}$  cents per quart, delivered under like conditions. These prices are arbitrarily fixed every six months by the Borden Condensed Milk Co., of New York City, and are telegraphed to their local managers in Chicago on the morning of contract days, March 15 and September 15, respectively. The milk producers are required to sign up the contracts by 4 o'clock of that same day and are not consulted as to price or conditions of sale.

The price paid to can shippers to the Chicago market for the six months' period beginning April 1, 1912, was an average of \$1.15 per 8-gallon can f. o. b. Chicago railway platforms, the freight paid by the producer.

The price paid to the can shippers for the winter period beginning October 1, 1912, is an average of \$1.42 $\frac{1}{2}$  per 8-gallon can. This milk is sold at retail in the city of Chicago at 8 cents per quart; cream, 10 cents per half pint.

There has been growing discontent among the milk producers of the Chicago district because of what is believed to be an unfair advantage taken of them by the Borden Condensed Milk Co. and the other large buyers of milk. In summer the producers receive less than one-third of the retail price, and in winter less than one-half of the retail price. In the fall of 1912 the milk producers, without exception, expected a substantial raise. Instead of that the Borden Co. imposed a substantial cut under the price of a year ago. Great resentment is felt throughout the district, which will doubtless lead to some form of cooperative method in selling their own milk. Being a perishable product, the storage feature does not enter this statement.

Many of the can shippers sell their milk through Richmond-Smith Co., a sales agency which sells the milk to the smaller dealers and guarantees the payment to the producer; for this service a commission of 3 cents per can is charged.

The supply and sale are continuous throughout the year, but during the winter period a larger volume is shipped than in summer.

The State law and city ordinance require milk to test 3 per cent butter fat, minimum, and the total solids must register 12. While the minimum is 3 per cent butter fat, the average of all milk delivered in the Chicago market by the milk producer tests 3.6 or better. The stringent city ordinance, recently passed, will increase the cost of production from one-half to 1 cent per quart. This ordinance requires the milk to be cooled to 60 degrees immediately after milking, and to be kept at that temperature until delivered to the consumer in Chicago.

Other requirements as to methods of milking and equipment of barn and milk house will add greatly to the cost of production.

Most of the milk sold in Chicago comes from territory within a radius of 80 miles of that city.

Little butter is made in the Chicago dairy district outside of a small number of creameries which are becoming less in number each year, the great bulk of the milk being shipped to the Chicago trade or to the condensed-milk factories. There has been a marked decrease in the number of milk cows during the past year, and the tendency will be to a less number in future years.

There is also a decrease in the number of dairies in the district, many farmers abandoning the milk business because the price of milk is so low.

#### **KINMUNDY FRUIT GROWERS' & SHIPPERS' ASSOCIATION, KINMUNDY, ILL.**

By G. W. SNELLING, Secretary.

The Kinmundy Fruit Growers' & Shippers' Association, of Kinmundy, Ill., was incorporated for the purpose of securing for its members the advantages of car-lot shipments and such additional protection as cooperation assures.

All shipments are consigned to commission houses, each member choosing the house to which he desires to sell his products. The business is almost entirely handled through commission merchants, which policy is, as a rule, satisfactory. When a house is suspected of unfair dealings the shipper does not hesitate to select another commission dealer.

#### **WARREN COUNTY STRAWBERRY GROWERS' ASSOCIATION, BOWLING GREEN, KY.**

By H. D. GRAHAM, General Manager.

The Warren County Strawberry Growers' Association is a corporation with principal office and place of business at Bowling Green, Ky., organized for the purpose of raising, buying, and selling strawberries. The association also buys strawberry plants and other growers' supplies, and secures or hires labor at uniform prices for the purpose of harvesting the crops of its stockholders.

The capital stock is divided into 1,000 shares, valued at \$5 each, and no person can be a stockholder who is not a grower of strawberries for the purpose of sale and shipment.

The association has about 1,200 acres planted to strawberries (most of them Aromas), and shipments aggregating 300 cars are

handled during the berry season, which begins about May 15 and continues about five weeks. The services of about 6,000 pickers are required to harvest the crop. These pickers are engaged by the association for the growers, who pay 8 cents a gallon to those who remain through the season, but to those who do not remain through the season 6 cents a gallon is paid. A good picker averages from \$2 to \$2.50 a day and boards himself. Shelter is provided by the grower.

The berries are packed in 24-quart standard American ventilated crates, and the full standard quart is used. Packing is conducted under the supervision of first-class inspectors, and the berries are graded as follows: "XXX" berries are fancy, and "XX" are the choice. The usual difference in price between the two grades is from 25 to 50 cents per crate, according to price level and season of shipping.

All sales are for cash or its equivalent, and consignments on commission are not made except when forced on account of oversupply.

Shipments are made by freight and also by express, but the proportion shipped by express is very small. The berries are sold f. o. b. cars Bowling Green, Ky., where the freight shipments are loaded in iced refrigerator cars. The few that are sold by express go to near-by towns.

Sales are made to wholesale commission houses, buyers for which are on the ground during the shipping season.

Articles of incorporation and by-laws follow:

#### WARREN COUNTY STRAWBERRY GROWERS' ASSOCIATION.

##### ARTICLES OF INCORPORATION.

These articles witness that A. G. Meadow, E. T. Stone, and E. R. Graham do hereby unite themselves into a corporation under the following terms and conditions, to wit:

First. The name of this corporation shall be "The Warren County Strawberry Growers' Association."

Second. Its principal office and place of business shall be located in Bowling Green, Warren County, Kentucky.

Third. The object and purpose of this association are the raising, buying, and selling of strawberries by its stockholders, and also the selling of the strawberries of others not its stockholders upon a reasonable compensation to be paid to this association and fixed by its board of directors; the buying, growing, and selling of strawberry plants; the ordering and purchasing of material in large lots for purpose of shipment of berries; securing or hiring labor at uniform prices for the purpose of harvesting the crops of its stockholders; the improving of the quality and character of the berries; the grading and inspection of the berries for the purpose of securing a uniform grade, and generally the securing of the best prices for the growers and stockholders obtainable in the market, and the production of the best and highest grade of strawberries possible.

Fourth. The amount of the capital stock shall be five thousand dollars (\$5,000.00), and the same shall be divided into one thousand (1,000) shares, and each share shall be five (\$5.00) dollars. Each stockholder shall have only one vote, regardless of the number of shares held by him. No person shall be a stockholder in this association who is not a grower of strawberries for the purpose of sale and shipment. No person shall become a stockholder of this association until he has been approved as such by the board of directors and has paid a membership fee of one dollar.

Fifth. And said capital stock shall be paid in such amounts and at such times as the directors may require; but no call shall be made at any time for an amount exceeding twenty-five per cent of the amount subscribed nor at any period or periods closer than six months.

Sixth. This corporation shall commence business when fifty per cent of its capital stock shall have been subscribed and shall continue for a period of twenty years.

Seventh. The affairs of this corporation shall be managed by a board of seven directors, all of whom shall be elected by the stockholders at a meeting to be held annually in Bowling Green, Kentucky, on the first Saturday in September, at 2 o'clock p. m., or at any other meeting regularly called for that purpose by the board of directors. The officers shall be president, vice president, and secretary-treasurer, who shall be members of the board of seven directors. The president shall act as chairman of the board. In the absence of the president, the vice president shall assume his duties. The secretary-treasurer shall act as secretary of the board, keep such funds of the association as may be obtained as fees, dues, etc. At the said meeting in September, or at any other meeting regularly called by the board of directors for that purpose, the stockholders shall elect a business manager, whose duties shall be prescribed by the board of directors.

The first meeting of this association shall be held on February 6th, 1909, at the courthouse in Bowling Green, Warren County, Kentucky, at 10 o'clock a. m., at which time the above-named officers of the association shall be elected by the stockholders. Thereafter the association shall meet regularly on the first Saturday in September of each year and at such other times, in Bowling Green, Kentucky, as may be fixed by the board of directors.

Eighth. The highest amount of indebtedness or liability which the corporation may at any time incur shall be one thousand (\$1,000.00) dollars.

Ninth. These articles of incorporation may be amended at any regular meeting by a two-thirds vote of the stockholders present, provided (1) that a majority of the stockholders shall be represented, (2) that such amendment shall be in writing, in the hands of the secretary and read by him at two previous meetings of the stockholders called for the purpose of amending said articles.

Tenth. The private property of the stockholders of this corporation shall not be subject to the payment of corporate debts.

In witness whereof the said incorporators above named have signed their names this 8th day of February, in the year of our Lord nineteen hundred and nine.

A. G. MEADOW.  
E. T. STONE.  
E. R. GRAHAM.

STATE OF KENTUCKY, *County of Warren, ss:*

I, Virgil Garvin, clerk of Warren County court, do certify that the foregoing articles of incorporation was on the 8th day of February, 1909, produced to me in my office and acknowledged by A. G. Meadow, E. T. Stone, and E. R. Graham to be their act and deed; and the same being this day lodged for record, is, with this certificate, duly recorded in my office.

Given under my hand, this 8th day of February, 1909.

VIRGIL GARVIN, *Clerk.*  
By E. C. SMITH, *D. C.*

A copy attest:

VIRGIL GARVIN, *Clerk.*  
By E. C. SMITH, *D. C.*

WARREN COUNTY STRAWBERRY GROWERS' ASSOCIATION.

BY-LAWS.

SEC. 1. All officers of the association shall assume their respective duties at the first meeting following their election and shall always abide by the rules of the association. The president shall call special meetings when requested to do so by three or more of the directors or upon petition of twenty members of the association.

SEC. 2. The secretary-treasurer shall keep an accurate account of all moneys, dues, assessments, etc., received and paid out by him. He shall leave his books open to inspection by the directors at any time and shall attend to all correspondence which is not to be done by the business manager.

SEC. 3. A director shall be a member in good standing, who has not violated the rules of the association for at least two years previous to his election. He shall be present at all regular and call meetings of the stockholders and

directors. Should a director be absent from three meetings in succession without a reasonable excuse, his place shall be declared vacant by the board of directors and his successor elected by the majority of said board to fill the unexpired term.

SEC. 4. All members of this association must use a uniform package adopted by the association.

SEC. 5. Excepting berries sold on the local market, all berries must be sold through the association. All members obligate themselves to be governed by the decision of the association in regard to the price to be paid for picking berries (which shall be recorded in the minutes of the secretary). Any member can pay less than the price agreed upon by the association, but can not pay more. An employment bureau will be established for the purpose of supplying pickers for members who are short of help. Said member can apply to this bureau. The association shall adopt a uniform tally card that shall be used by all members.

SEC. 6. Any member of this association who may cherish a grievance of any character whatsoever, real or imaginary, as to the business management of the association is required to make same in writing over his signature and file with the secretary, who shall send same at the first regular or called meeting of the board of directors held thereafter, to be adjusted by the board to the best interest of the association.

SEC. 7. Any member violating any of the above by-laws shall forfeit his membership and shall be barred from shipping through the association until reinstated by the association.

SEC. 8. All berries delivered to the association on any one day shall be paid for at uniform prices. When prices vary, each crate shall be paid for at the average of its grade for the entire sales of the day.

SEC. 9. Duties of the board of directors.

First. It shall be the duty of the board of directors and they shall have power when deemed necessary—

- (a) To call special meetings of the stockholders.
- (b) To make contracts and be contracted with; to employ or remove laborers and agents.
- (c) To make calls upon stockholders for funds to meet the indebtedness that may be incurred in the transaction of the business of the association.
- (d) To approve or disapprove the sale or transfer of all stock of this association.
- (e) To adopt and have registered a trade-mark of the association.
- (f) To hear and dispose of all cases of grievance or complaints that may arise within the association, it being understood that any stockholder holds the right of appeal to the association from the decision arrived at by the board of directors.
- (g) To submit in written form at the annual meeting, or any other meeting called for that purpose, a full report of all business transacted by said board, embracing therein the assets and liabilities of the association.
- (h) To prescribe the duties of the business manager and his assistants, and to approve of his recommendations regarding inspectors, bookkeepers, and systems of management.
- (i) To require and fix the amount of business manager's bond.

SEC. 10. Business manager:

1. The business manager shall receive and disburse all funds of the association, covering the purchase of crates, fertilizers, plants, etc., and moneys obtained through the sale of its products, and shall execute such bond as the board of directors may require for the faithful performance of his duties.
2. The business manager's compensation shall be fixed by the association.

#### AROOSTOOK POTATO GROWERS' ASSOCIATION, PRESQUE ISLE, ME.

By GUY C. PORTER, General Manager.

The Aroostook Potato Growers' Association is composed of about 700 farmers, organized for the purpose of (1) getting its products to the consumer with the least possible expense consistent with good business, and (2) buying supplies direct from manufacturers.

Potatoes are the principal product dealt with. Car-lot purchases are made by the association from either one member or from several members who have clubbed together to load a car, and whenever possible sales are made direct to the wholesale or large retail grocers.

The association takes the place of the shipper, and when possible does away with the commission man, broker, and wholesaler. Aroostook is situated a considerable distance from markets, therefore it is necessary to make car-lot shipments, and the large retail grocer is the consignee nearest the consumer.

Market information is received daily at the central office of the association at Presque Isle, Me., and is immediately furnished to members, almost all of whom have telephones.

Seed potatoes are now being shipped direct to southern growers and to growers' associations.

A contract is made every year with some reliable fertilizer manufacturer to sell direct to the members of the association. The orders are taken by the association, turned over to the fertilizer company, and shipment is made direct to the members with draft attached to bill of lading. In this way neither the fertilizer company nor the association assumes risk.

Three hundred and sixty cars of potatoes were shipped last season and 1,200 tons of fertilizer were sold.

#### NEW ENGLAND CRANBERRY SALES CO., MIDDLEBORO, MASS.

By G. R. BRIGGS, President.

The New England Cranberry Sales Co. is an incorporated cooperative association of cranberry growers established for the purpose of improving and standardizing packing, widening the market for cranberries, distributing shipments so as to adjust the supply in each market to the demand, sharing among its members the inevitable risks of transportation and of business, posting its members on market conditions, and relieving them, through the services of its manager and his assistants, of many details of the business of shipping cranberries which individual members have neither the time nor the facilities to satisfactorily attend to.

The manager is assisted by a corps of inspectors, each of whom travels among the cranberry bogs and packing houses in his district, and by a force of accountants, which keeps detailed records of each shipment.

The manager is in frequent communication with the selling agency—the American Cranberry Exchange, with offices in New York and Chicago—the managers of which give their whole time to the business of distributing cranberries, and study all conditions which may affect the demand and sale for cranberries. The American Cranberry Exchange has representatives in all important markets.

When a grower wishes to make a shipment of cranberries he notifies the manager, who details an inspector to examine and classify the shipment. If it corresponds to one of the several brands established by the sales company, the inspector orders the appropriate label affixed designating that brand. If it is not of a standard grade, no label can be used, and the name of the sales company does not appear on the package. In no event is the grower allowed to mark a package

with his name or to use any identifying mark except his packing number, which enables the sales company to know the shipper of any package.

All cranberries of the same brand in the same shipment period (generally one calendar week) are paid for at the same price, being the price received by the sales company for berries of that brand during that period, less selling cost, which is charged at the rate of 7 per cent, although this charge may be reduced by a vote of the stockholders, who are the members, if the actual expense of handling the crop is less than 7 per cent.

Payments are made the shipper in two installments: (1) Seventy-five per cent of the estimated net value of the shipment on receipt of the bill of lading at the office of the sales company; (2) 25 per cent when final payments for the shipping period have been received by the sales company. Unbranded cranberries are paid for at the price received by the sales company less 7 per cent.

If any branded lot of berries is not satisfactory to the purchaser, and it is found, on examination by a traveling inspector or other employee of the American Cranberry Exchange, or by other evidence sufficient to convince the directors of the sales company, that the lot is inferior to the standard of the brand under which it is shipped, it is to be paid for as if unbranded.

When any lot of cranberries is ready for shipment the manager determines the market to which it shall be shipped, according to the instructions of the selling agency, taking into account, however, the detailed report of the inspector on the lot.

Shipments are made, as far as possible, in carload lots. Small lots, for which no suitable orders are waiting, are either combined in carloads or sent to one of the company storehouses from which rush orders are filled.

The bulk of the cranberry crop is sold f. o. b. shipping station to jobbers of the United States and Canada, but in several large markets the American Cranberry Exchange maintains stores for distribution of cranberries to customers who can not use full carloads. No cranberries, however, are sold at retail.

Collections are made by the exchange and the proceeds of each lot are remitted to the treasurer of the sales company after a charge of 5 per cent has been deducted.

The systematic work of the sales company in standardizing grades of cranberries, filling orders with suitable shipments, reducing the necessity of handling cranberries in transit by shipping in carloads direct to distant markets, combined with the wide experience and knowledge of the trade possessed by its selling agents, have done much to widen the market for the product, to cause a reasonable scale of prices to prevail, and increase the sale and use of cranberries.

When there was no cooperation among the growers, and each shipped according to information received from his individual correspondents, the supply in any market was seldom adjusted to the demand, prices fluctuated violently, and much fruit was wasted in glutted markets; dealers were timid about investing in a commodity of such uncertain value and consumers were alternately offered good berries at high prices or stale shipments for which they were generally charged too much. With the intelligent distribution of shipments, the improved conditions of transportation, and the standardi-

zation of packing there has resulted stability in values, and it is possible to secure cranberries in most markets at any time in season at a fair price.

#### ANDERSON BERRY GROWERS' ASSOCIATION, ANDERSON, MO.

By W. ED. ROARK, Manager.

The Anderson Berry Growers' Association, of Anderson, Mo., was organized in 1903, with a membership of about a dozen growers, representing about 40 acres planted to strawberries. In 1912 the membership reached 450, representing 1,200 acres planted to strawberries. The association is cooperative, is not incorporated, and has no working capital.

The picking must be done as directed by the owner or field boss. The berries must not be pulled, but the stem must be pinched off about half an inch from the berry, and by this held and laid in the box; not dropped or thrown. The berries must not be bruised, and all overripe berries must be kept out. Berries must be picked daily, and if for any cause picking is delayed, a sufficient force must be employed to cull out all overripe and unsound berries from the boxes.

All crates must be clean and well made, and the grower's name must be stamped on both ends of the crate in the upper left-hand corner; under this name the "variety" stamp is placed.

The grower is required to use every possible precaution in handling his berries to avoid bruising or injuring them in hauling to packing shed.

The one grade of berries packed by this association is known as the "standard" grade, and includes all marketable stock. If for any reason a grower's berries do not come up to the standard grade, they are designated "B" grade, and the grower receives 25 per cent less for them than the selling price of the standard grade. Fruit that is too soft or otherwise unfit to grade as "B" will be handled to the best advantage by the manager when requested to do so by the grower.

A grower may appeal from the decision of an inspector to the business committee, or any member thereof, whose decision is final.

Each day's picking is prorated separately, all growers receiving the average price for the same grade of fruit delivered any day.

The expenses of the association are determined by the business committee at the close of each shipping season, and are apportioned among the members in proportion to the number of crates shipped by each.

The essential elements of success in handling perishable fruit is a "square deal" for the commission merchant. Hold your trade by honest dealings. Our best customers among the commission trade are men we started nine years ago.

Our success is due to shipping the berries in a marketable condition. Cars were previously sent out on consignment, but since a reputation has been established for our pack, sales are made in the majority of cases as soon as cars are loaded.

No selling agency is employed, but sales are made through commission merchants. Market conditions are determined by use of the telegraph.



The greatest difficulties are with the transportation companies and in getting proper distribution.

In 1912 we handled 79 cars of berries, of which number 31 were consigned.

A "general statement," follows:

*General Statement of the Anderson Berry Association for 1912.*

Date of first express shipment, May 13; last, June 10. •

Date of first car-lot shipment, May 20; last, May 31.

Number of crates expressed, 910; number shipped in car lots, 41,646; total, 42,556.

Highest price car sold, \$2; lowest, \$1.10 per crate.

Highest price car consigned, \$1.41; lowest, \$0.80 per crate.

Number cars sold, 48; number consigned, 31; total, 79.

Average price of sold and consigned, \$1.27 per crate.

Balance in bank from 1911	\$96.50
Amount received, sale of crop of 1912	54,039.31
Total	54,135.81

*Expense account.*

Loading 79 cars berries	\$269.10
Loading material	230.87
Inspecting and ticket writing	153.05
Advertising and printing	55.20
Salesmen sent to market	184.35
Manager's salary	638.34
Telegraph and telephone	83.61
Bookkeeper's salary	102.00
Incidental expenses	70.47
Refund on account of garnishee	110.39
Paid to growers	52,201.11
Balance in bank	37.32
Total	54,135.81

**KOSHKONONG-BRANDSVILLE FRUIT SHIPPERS' ASSOCIATION,  
KOSHKONONG, MO.**

By R. M. HITT, Secretary and General Manager.

The Koshkonong-Brandsville Fruit Shippers' Association, of Koshkonong, Mo., is a cooperative body organized for the purpose of improving the quality of the products of its members and the systematic and economic marketing of same. Growers for whom shipments are made must own at least one share of stock of the association; no one owns more than four shares.

Experience has shown that a haphazard system of consigning and selling fruit by several growers individually is expensive and unsatisfactory. It causes an unnecessary competition at home, with lower prices to the producer, without a corresponding reduction to the consumer. Low prices on a given market are more often caused by improper distribution than by overproduction.

One man can handle the fruit from the section in which this association operates better than 10 men, at about one-tenth of the cost for marketing. The selling of fruit shipped by the association is placed in the hands of a manager.

Fruit that is to be shipped by this organization must be sprayed and of uniform grade and package. It is aimed to produce a quality of fruit and pack it in such a manner that the markets will seek it.

The cost of packing and marketing is prorated among the growers at so much per package, and an additional charge is made of  $1\frac{1}{2}$  per cent on net returns, in order to create a working fund, which it is planned to use for the benefit of the growers.

The growers have no time to study market conditions, and this association was organized to save them that trouble and expense.

The sales-man of the association keeps posted on crop conditions in competing territories, and at shipping time is in a position to distribute more profitably.

Sales for delivery f. o. b. at loading station are preferred, but when local sales are not advantageous consignments are made to distant markets.

#### SARCOXIE HORTICULTURAL ASSOCIATION, SARCOXIE, MO.

By J. E. WAGNER, Secretary.

The Sarcoxie Horticultural Association is a cooperative association of strawberry growers for the marketing of their berries. We have tried both consigning and selling "on track." Last season, sold our entire crop, 101 carloads. I am not in a position to say which system is best for growers. The buyer, as well as the consignee, is ever ready to find fault in order to secure lower prices from the shipper.

Trouble now brewing is caused by the dry-quart strawberry box. This box is too large to refrigerate well. It may do for near-by markets, but as we use markets generally that require three or four days to reach, the dry quart will not refrigerate sufficiently to carry that long a time, especially when weather is warm and rainy. Should Congress pass a law requiring us to use the dry-quart berry box, the strawberry business in southwestern Missouri would be destroyed.

#### HAMILTON FRUIT ASSOCIATION, HAMILTON, MONT.

By C. L. LONGWELL.

The Hamilton Fruit Association, of Hamilton, Mont., has a membership of 60, and was organized for the purpose of marketing the products shipped by said members.

The association is empowered to sell the members' fruit to the best advantage. It may pool the fruit of like grades and varieties, and the price received by each grower for his fruit shall be the pool price received for like grades and varieties. The fruit is delivered to the association at shipping point in good merchantable condition, in new, clean boxes, marked, graded, and packed according to the rules of the organization.

Upon the close of pooled returns a full statement is rendered the grower of all his fruit sold in the pool, and remittance is made to cover the amount.

The grower agrees to have deducted from the cash returns on the sale of his fruit an amount per box determined by the board of directors. The sale commission is equally prorated upon all fruit handled by the association.

The system of grading and packing it is about the same adopted by some of the older fruit organizations in Washington and Oregon—that is, it is demanded that there be nothing packed by the grower showing any kind of disease or injury; that the fruit shall be graded for size and color; and that it shall be wrapped and placed very carefully in boxes. Careful attention is given to these requirements in the orchards by the growers.

Every box of fruit undergoes platform inspection when delivered to the association warehouse, and the grower is required to haul the fruit back home if it does not meet requirements.

An agreement has been entered into by the association with the Northwestern Fruit Exchange, of Portland, Oreg., by which the last-named organization will hereafter act as selling agent. The association reserved the right to sell all or any portion of its fruit.

In order to facilitate the marketing of the products of the association, traveling salesmen have been sent to a few Eastern and Southern States.

The principal difficulty in marketing fruit from the Montana districts lies in the fact that Montana, especially the Bitter Root Valley, has been given unfavorable freight rates. The rates into western Canada have been very high, and were it not for the reduction that took place a short time ago it would have been impossible to have made shipments to that part of the country. The new schedule of rates relieves the difficulty to a large extent.

No railroad rates appear to exist to Denver, points in Kansas, and some other markets. This may be due to the limited tonnage of the past, yet it is a matter that should be adjusted by the railroads. The matter of securing favorable rates into these different sections has been taken up with the railroads.

Shipments by the association have been confined entirely to pears and apples. The tonnage of the entire Bitter Root Valley for the season of 1912 will be in the neighborhood of 500 carloads of apples and probably 15 carloads of pears.

Consideration is being given to the handling of other fruits than apples and pears, and in the event of crop conditions being favorable next season shipments will be made of a number of cars of cherries, plums, berries, and, possibly, vegetables.

With the increased area of orchards which will come into bearing in the next 10 years it is estimated that this association will market from 2,000 to 3,000 carloads of apples per season, principally of the following varieties: McIntosh Red, Jonathan, Rome Beauty, and Delicious. These varieties do especially well in this section of Montana. The principal variety of pears shipped is the Flemish Beauty.

A "Form of agreement" follows:

#### HAMILTON (MONT.) FRUIT ASSOCIATION.

[Form of agreement with grower.]

This agreement, made and entered into, in duplicate, by and between the Hamilton Fruit Association, herein called the "association," and the signer of this agreement, herein called the "Grower."

I. Witnesseth: That for and in consideration of the sum of one dollar (\$1.00), this day paid by the association to the grower, receipt of which is hereby acknowledged, the grower hereby appoints and constitutes the association his agent to sell for him his crop of fruit for the season of 19— of the varieties and quantities estimated below, it being understood that in the event of the

grower's fruit being destroyed by frost or other force of nature this agreement shall become void.

II. The association shall sell the said fruit to the best possible advantage.

III. It is understood that the association may pool the grower's fruit with like grades and varieties received from other growers and the price he shall receive for said fruit shall be the pool price received for like grades and varieties.

IV. The association shall make remittance to the grower as promptly as practicable, and upon the close of the pooled returns the association shall render a full statement to the grower of all his fruit sold in said pool with remittance to cover.

V. The grower shall deliver his fruit to the association at its place of shipping in good merchantable condition, in a new, clean box, marked, graded, and packed according to the rules of the association.

VI. It is understood and agreed that in the event of said grower violating this agreement by selling his own fruit he shall immediately notify the association, giving the list of grades and varieties and number of boxes of each, and also pay to the association the sum of ten cents (10c) per box for every box sold.

VII. In consideration of the services rendered by the association, handling and selling said fruit, the grower agrees to have deducted from the cash returns on the sale of his fruit an amount per box to be determined by the board of directors of the association, the sale commission to be equably prorated upon all fruit handled by the association.

*Estimate of quantity and varieties.*

Number of boxes.	Variety.	Number of boxes.	Variety.

HAMILTON FRUIT ASSOCIATION,

\_\_\_\_\_, *Manager.*

\_\_\_\_\_, *Grower.*

Dated \_\_\_\_\_, 19—.

**MONMOUTH COUNTY FARMERS' EXCHANGE, FREEHOLD, N. J.**

By W. H. INGLING, General Manager.

The Monmouth County Farmers' Exchange came into existence because the farmers of that section were dissatisfied with the system in vogue of marketing their products; too many dealers were handling them, the cost of distribution was high, and the expense fell on the grower.

The system then in operation was as follows: The farmer would sell his goods to the resident buyer, who would sell them to the jobber in the nearest large city. This jobber would dispose of them to a jobber in a distant city. This second jobber would sell to the wholesaler or commission merchant, and he to the retailer, who, in turn, would sell to the consumer. By this custom there were five dealers handling the goods before the customer received them, and the farmer received about an average of 40 cents on a dollar purchase of the consumer.

By organizing a cooperative exchange and looking after his own business the farmer concluded he could get a little more of the dollar without exacting a higher price from the consumer, as his organization, by cooperation, would be able to sell to the wholesaler who was located near the consumer, thereby securing a better price by the elimination of three dealers.

To eliminate the wholesaler and retailer the consumer should organize a cooperative buying exchange and buy his goods direct from the producers' exchange. Only in this manner can the grower and consumer get together.

Because of the conditions mentioned, the Monmouth County Farmers' Exchange was organized and incorporated in March, 1908. Business is transacted directly with all the principal cities east of the Mississippi, the exchange having its own salesmen in 20 States, thus eliminating some dealers between the producer and consumer.

The system followed by the exchange is as follows: The board of directors has general supervision over the entire business. The general office is situated at Freehold, N. J., nearly in the center of the exchange's territory, which covers about 50 miles in length, and is in telephonic communication with all of the 30 loading stations as well as all the cities with which business is done. In addition a telegraph office is located in the general office.

The members of the exchange deliver their potatoes or other products to the representative at the station and are furnished receipts for them showing gross, tare, and net weight. The products are then loaded into the cars for shipment. The agent notifies the manager about the middle of the afternoon the number of cars he will have loaded by shipping time and receives his billing directions.

The manager and his assistant in the meantime have issued their quotations to all the salesmen of the exchange and the dealers in the principal cities, either by telephone or telegraph, and generally by 3 or 4 o'clock the output of the day has been sold. Through its salesmen the exchange is kept informed of the market conditions throughout the country.

When the business of the day is over the prices obtained are averaged, and the farmer is credited with this average price for the same grade and variety, no matter where they may have loaded it.

The bills of lading are sent to the general office in order that the invoices and drafts may be sent out the same night. The price is given to each agent every morning for the goods shipped the day before, and the agent notifies the farmers.

The results of the five years' work of the exchange are as follows:

*Transactions of Monmouth County Farmers' Exchange, 1908-1912.*

Item.	1908	1909
Total business.....	\$454,414.11	\$508,504.74
Shipments (cars).....	1,000	1,200
Seed-potato sales.....	\$40,000.00	\$42,000.00
Sales of fertilizer.....		\$30,000.00
Membership.....	300	500
Capital stock.....	\$7,000.00	\$31,275.00
Dividend on stock.....		5%
Direct benefit over old system.....	\$55,000.00	\$60,000.00

Item.	1910	1911	1912
Total business.....	\$917,562.64	\$1,499,500.99	<sup>1</sup> \$1,000,000.00
Shipments (cars).....	2,575	2,518	2,400
Seed-potato sales.....	\$60,000.00	\$85,000.00	\$98,000.00
Sales of fertilizer.....	\$63,000.00	\$100,000.00	\$128,000.00
Membership.....	800	1,075	1,227
Capital stock.....	\$49,370.00	\$74,245.00	\$75,175.00
Dividend on stock.....	5%	5%	5%
Direct benefit over old system.....	\$100,000.00	\$125,000.00	\$100,000.00

<sup>1</sup> Nearly.

**AMERICAN CRANBERRY GROWERS' ASSOCIATION, HAMMONTON,  
N. J.**

By A. J. RIDER, Secretary and Treasurer.

The American Cranberry Growers' Association is an organization of cranberry growers and others interested in the cranberry industry. It is not incorporated.

In its early existence 40 years ago, attention was especially directed to solving problems pertaining to culture of the fruit. Later, attention was directed to marketing, which up to that time was done through commission houses, and in a very unsatisfactory manner.

About 18 years ago the Growers' Cranberry Co., a sales company, was organized and incorporated. A sales agent was employed at a salary, and most of the large growers became identified with this company. The results were so satisfactory that, later on, similar organizations were effected in Massachusetts and Wisconsin.

Two years ago these organizations were brought into closer relations by the formation of a central company called the American Cranberry Exchange, with headquarters in New York City.

All cranberry sales are now made through this Central Cranberry Exchange, and they embrace approximately two-thirds of the entire output.

About the same time this cooperation was effected another sales company was organized, called the Independent New Jersey Cranberry Sales Co., concerning which no data are at hand.

The American Cranberry Growers' Association, the Growers' Cranberry Co., and the American Cranberry Exchange have established a rigid system of inspection and grading.

The grower's part ends with the loading of cars and the notification to the company, accompanied by bill of lading, certificate of inspection, etc.

At this point the car is in charge of the company, which follows it to destination, collects the sale price, and returns to the grower the proceeds, after deducting a percentage to cover cost of transacting the business. If this deduction proves to be more than necessary, the balance is returned to the growers pro rata.

Cranberries are packed, throughout the cranberry-producing States, in standard packages; the crates contain 32 quarts and barrels contain 100 quarts. The season is from September 15 to December 15.

**MARKET GARDENERS' ASSOCIATION OF MONROE COUNTY, IRON-  
DEQUOIT, N. Y.**

By A. J. WARREN, Secretary.

The Market Gardeners' Association, of Monroe County, N. Y., is located at Irondequoit, N. Y., where almost the entire population of 5,000 inhabitants are engaged in market gardening. The crops include celery, onions, tomatoes, corn, muskmelons, spinach, carrots, turnips, lettuce, radishes, cucumbers, parsley, watercress, and beets. Greenhouses are utilized during the winter and spring months.

The vegetables are marketed chiefly in Rochester by the gardeners, although during the winter and spring months shipments are made to

other markets. Our members use the modern market place which the city of Rochester has provided and where stalls are rented for a minimum price of \$30 per annum.

The association sells its goods to grocers, marketmen, and hucksters. Few sales are made to consumers.

When shipments on commission are made the growers trust to the honesty of the commission men, with no guaranty from them whatever; when sales are made to local buyers the terms are always cash on delivery. When shipping goods are delivered to most convenient express office. Nothing is sold at auction.

Celery is sometimes sold prior to harvest, but the method is not approved, because buyers will give no written contracts. Their refusal to assume responsibility often results in goods remaining unmarketed.

This association has no cooperative selling agencies and does not approve of them to any great extent, because of the perishable nature of the goods sold.

Standard bushel crates are used, and weights and measures are looked after by a city official, who is on the local market daily. The heaviest sales are made between May 1 and November 1.

Celery and roots only are stored for winter. Celery is trenched in the ground and covered with earth and manure to keep from freezing. The middlemen store celery in warehouses.

#### ERIE COUNTY GROWERS AND SHIPPERS' ASSOCIATION, ORCHARD PARK, N. Y.

By M. H. HOLMWOOD, Manager and Salesman.

This association was incorporated under the laws of the State of New York five years ago, for the purpose of pooling the products of its members so as to be able to ship in car lots to cities other than Buffalo, N. Y., which is our local market.

Previous to our organization it had been the practice of local buyers to allow the local market (Buffalo) to become glutted, at which times they would buy our products at their own price, ship them to other markets, and sell at a profit.

The services of the local buyer have been eliminated. No goods are stored.

The beginning of the heaviest sales is about July 1 and they continue until November 1.

The following are some of the principal items of expense in marketing incurred by this association: (1) Five cents per package or bushel, retained for defraying the current expenses; (2) icing cars; (3) freight and express charges; (4) commission.

All our sales are made through commission houses, which charge 7 per cent on gross sales.

Shipments are dispatched by the Buffalo, Rochester & Pittsburgh Railroad; the Pennsylvania; the Erie; the Lake Shore & Michigan Southern; and the Wabash. The average distance is from 500 to 1,000 miles.

The main difficulty of the association is to keep the producer satisfied at all times as to grading and prices.

## LONG ISLAND CAULIFLOWER ASSOCIATION, RIVERHEAD, LONG ISLAND, N. Y.

The Long Island Cauliflower Association, of Riverhead, Long Island, N. Y., was organized for the purpose of getting the product to market as quickly as possible.

A local agent is employed at each shipping station in the cauliflower belt: a manager is located at the largest and most important one; and the Long Island Railroad Co. furnish a special train for cauliflower service only.

The association charges a member a fee equal to the freight rate for less-than-car-lot shipments, and by making up car-lot shipments en route and consigning them to the receiver at the terminal point the association is enabled to take advantage of carload rates. The railroad is paid the carload rate, and the shipper pays the less-than-car rate; the difference covers the operating expenses of the association. The chief items in expense of marketing are freight, cartage, and commission.

At certain times when shipments to New York and Brooklyn become too heavy to command fair prices, shipments on a brokerage basis are made to markets in other States. The object is to give the New York and Brooklyn markets only what they can handle each day at a fair price.

Endeavor is made to protect the shippers from dishonest dealers.

Most of the empty barrels used by the association are supplied at the lowest price by it.

Conditions under organized management are 100 per cent better than before.

At certain times in the season some sales are made to buyers for New York and Brooklyn markets, for delivery to local shipping point. No goods are sold at auction in large cities. In the producing region the man offering the highest price gets the goods.

No sales are made prior to harvest, except to salting houses.

The season begins September 1 and ends December 15.

When goods are consigned to commission merchants they sell to grocers, who sell to consumers. Goods for markets outside of New York and Brooklyn are bought by jobbers and sold to grocers.

In a few instances cold storage is used by buyers for periods not exceeding one month.

Shippers are advised by their respective commission houses by letter or postal concerning every shipment made, as to price, condition, etc. Many farmers have telephones and use them freely when in search of markets.

A bulletin board in front of the association office shows the selling price for that morning in New York and Brooklyn. By keeping in constant telegraphic communication with all the large cities in the eastern half of the United States the association is enabled to sell cauliflower in the best eastern markets, although, as has been said, most of this produce goes to greater New York. This enlarges the field of operations, enables the growers to raise a larger acreage, and at the same time gets them a better price for their product.



## GROWERS AND SHIPPERS' EXCHANGE, ROCHESTER, N. Y.

By HARVEY W. BAXTER, Secretary.

The Growers and Shippers' Exchange, of Rochester, N. Y., is incorporated under New York laws, with a capital of \$20,000, divided into shares of \$10 each. The exchange prefers to make sales f. o. b. loading station. However, salaried representatives are located in many consuming markets and much business is transacted through regular middlemen. All sales are made after harvest.

An effort was made, through advertising and personal solicitation, to sell direct to the consumer, but this was found more expensive than working through large department stores or companies owning a number of grocery stores.

The exchange had sale days for boxed apples in several cities, at which time it offered to deliver to any home in these cities at the flat rate of \$2.25 per box. It cost the exchange a fraction over 36 cents a box to make deliveries, thus leaving \$1.89.

Better prices resulted from an arrangement made with some department stores, which paid the exchange \$2 per box and sold on certain days to consumers at \$2.25 per box, the retail price advertised by the exchange. The exchange received 11 cents more per box in selling to large dealers than in selling direct to the consumer. The efforts of this organization to set retail prices on small packages of farm products have been successful, particularly when special arrangements have been made with large retail dealers.

The public station for sorting, grading, and packing farm products into small registered trade-mark packages is necessary for the producer to succeed in fixing the retail price at which his products are to be sold.

It does not seem advisable for a cooperative farmers' exchange to undertake packing and sorting their products, except through a public cooperative sorting and packing station, where a uniform grade and package can be maintained.

The best information obtainable shows that producers of farm products do not get an average to exceed 35 per cent of the consumer's dollar when the products are shipped to market in bulk without any particular identity or in packages too large to reach the consumer. When shipments are made in small packages labeled so that their origin is plainly shown the producer often gets from 70 per cent to 85 per cent of the consumer's dollar.

This organization has found it possible to standardize the retail price on farm products by using a package small enough in size to pass through the dealers' hands without losing its identity by being divided into smaller packages before reaching the consumer.

Apples are thus marketed in pasteboard cartons holding 1 peck each, eight of which are in a crate; potatoes are shipped in 15-pound burlap or paper sacks; and grapes in 4-pound baskets. Each package bears the label of the exchange.

The business of this exchange averages 229 cars of fruit and produce a month, about 14 per cent of which is put in small trade-marked packages.

## CHAUTAUQUA &amp; ERIE GRAPE CO., WESTFIELD, N. Y.

By J. M. WETHY, Financial Secretary.

The Chautauqua & Erie Grape Co., of Westfield, N. Y., was organized under the laws of New York in 1897, for the purpose of marketing grapes for contract growers. It is a stock company with salaried officials and employees.

The company inspects, supervises the picking, packing, and loading of grapes, and takes charge of the marketing.

Grapes for table use are sold to wholesale commission merchants, and those for wine purposes are sold to wineries and grape-juice factories. All sales are made from the main office.

All table grapes are sold in standard 8-pound baskets; all wine grapes are sold by the ton.

The shipping season begins about September 1 and ends November 15. The heaviest shipments are made during October.

Sales are made principally by telegraph; very few are made at shipping point. Deliveries to purchasers are made at loading point. Ten days' credit is extended to responsible parties; otherwise sight draft is attached to bill of lading.

No future contracts are made; sales are made on each day's quotations. No sales are made at auction.

A commission is charged by the company of one-half cent per basket and \$1 per ton. If there is a surplus after payment of expenses, it is returned to the growers in proportion to the quantity of grapes shipped by each.

[Extracts from the by-laws of the Chautauqua & Erie Grape Co.]

SEC. I. The aim of the Chautauqua & Erie Grape Co. from now on shall be not to ship the most possible cars, but to ship only first-class fruit, and to solicit contracts from only those who will put up good stock, who will include their whole crop, and only from stations where at least ——— cars will be loaded and where proper railroad facilities are furnished.

All grapes are to be thoroughly inspected by a nonresident inspector, under direction of the executive committee and local managers.

One or more general inspectors to be employed, who shall visit the various loading stations, vineyards, and packing houses of the growers. The loading of cars to be a part of the inspectors' duty and the local manager's to be held jointly responsible with the inspectors for the proper loading of cars.

The local managers to be hired outright by the day or for the season, by the board of directors. The said local managers to devote most of their time during the shipping season in seeing that all grapes leave their shipping stations in the best possible shape and not delegate their work to anyone else.

All grapes not strictly first class will be sold for wine or shipped locally, and not loaded in with first-quality grapes, and they will be pooled separately. In this class will include all dirty, small, damp, untrimmed, cracked, mildewed grapes, as well as those picked in hot weather. Furthermore, the baskets themselves must be made of substantial veneer and with good handles and covers of proper size to fit the baskets nicely.

All grapes shall be packed in the packing houses in standard 8-pound Climax baskets, or in 4-pound Climax baskets, or in such other packages as may be recommended or approved by the company. All baskets must be carefully packed and carefully filled and labeled with the label prescribed and adopted by the company.

\* \* \* \* \*

SEC. IV. The contract growers and stockholders of this company in the several townships entitled to a representative upon the board of directors shall meet in their several localities at such place and at such time previous to the

annual meeting of stockholders of this company as the board of directors shall appoint, and shall recommend the representative or representatives to which they are entitled upon the board of directors and select a local manager and auditing board of three, and may select a board of not more than five directors for their local associations.

SEC. V. The board of directors or local manager of each local association shall attend to the securing of contracts from the growers of their locality, reporting the number of acres of bearing vineyards in their territory, as well as the acres under contract with this company, to the general board of directors on or before the 20th of January in each and every year. They shall recommend the necessary help to properly load the grapes delivered to this company at such loading points as the general board of directors may designate; also such office or other help as they deem necessary to discharge the current work devolving upon their local association. They shall pay, or cause to be paid, through their local manager, from funds remitted to them by the company, all moneys due the growers of their local association and for all labor and bills contracted by them for their local association.

\* \* \* \* \*  
SEC. VII. The annual meeting of the stockholders shall be held at the office of the company, in Westfield, N. Y., on the last Tuesday in January of each year.

\* \* \* \* \*  
SEC. X. The officers of the company shall be president, secretary, and treasurer, to be elected by the board of directors by majority vote thereof. Such election of officers shall be held annually immediately after the election of each new board of directors.

They shall elect an executive board of not more than five from among their number, one of whom shall be financial secretary.

\* \* \* \* \*  
SEC. XVII. The general business management of this company shall be vested in the board of directors, who shall, when entering upon their duties, elect an executive committee of not more than five, who shall have charge of shipping, selling, marketing, collecting, and inspecting all grapes shipped through the company; they shall have charge of all traveling salesmen and inspectors and provide for a thorough distribution of all grapes; they shall have charge of all correspondence and shall cause a complete statement of the year's business to be made to the growers at their annual meeting each year.

SEC. XVIII. The executive committee shall, when the collections for each day's shipments are fully completed, after deducting the prescribed charge for marketing, pool the same, each variety, grade, and different style package by itself, and notify and authorize the several associations to pay, from funds remitted to them by the company, each contract grower of this association the amount due on his deliveries included in such pool. They may also authorize the several associations the amount per package they may advance from the funds remitted to them by the company to their contract growers until pools are paid complete.

SEC. XIX. The shares of the capital stock of the company shall be distributed among the several townships in proportion to the number of acres of bearing vineyard in each township and stock shall originally be issued to growers only.

After paying and providing for expenses and six per cent per share on the amount paid in on each share of stock, if any surplus remains it shall be divided among the contract growers of the several townships who have shipped their entire crop of Concord grapes as per contract through the company in proportion to the quantity of grapes shipped.

#### EAST CAROLINA TRUCK & FRUIT GROWERS' ASSOCIATION, WILMINGTON, N. C.

By H. T. BAUMAN, Secretary and Business Agent.

The East Carolina Truck & Fruit Growers' Association, with principal office at Wilmington, N. C., is incorporated under the laws of North Carolina with an authorized capital of \$25,000. For the past 15 years it has been engaged in handling the strawberry and vegetable crops of eastern North Carolina.

The shipping season begins in March with lettuce and ends in August with melons and September with sweet potatoes. The heaviest sales are in May, June, and July.

Each year this association makes a complete canvass of the strawberry territory to ascertain the number of acres of strawberries planted and under cultivation and estimates the probable output and the number of refrigerator cars required to handle the crop, based on a minimum of 236 crates to the car. Crops and conditions of previous seasons and those existing each season are also noted. All this information is carefully prepared and a report made for the association, copies of which are furnished the railroad, refrigerator-car, and ice companies, and the crate factories.

From this report the railroad and refrigerator-car companies may know how many refrigerator cars they are to provide, the ice companies the probable amount of ice they will be required to furnish, and the crate factories may know the number of crates needed to supply the demand.

The secretary and business agent appoints agents in the various markets and at the Potomac Yards, whose duties are as follows: The agent at Potomac Yards meets all trains, records all arrivals of refrigerator cars from this territory of which he has notice from the business agent, attends to the reicing of the cars, their delivery to the Pennsylvania Railroad, and their forwarding from these yards. The agents in the various markets keep informed concerning all refrigerator cars for their respective markets, noting date and time of arrival, condition of contents when unloaded, number of crates in each car, condition of ice in bunkers, and time unloaded and delivered to consignees.

At South Rocky Mount, N. C., where the business agent establishes an office for the season, he provides that every train from the strawberry belt be met, the time of arrival noted, condition of ice in the bunkers of each car carefully recorded, the reicing of each car looked after, and sees to the prompt forwarding of all shipments from South Rocky Mount.

When all shipments for the day have been forwarded the number of cars for each market is carefully compiled and the data sent by telegraph and bulletin to each shipping point, reaching them before any shipments are loaded out for the next day. The actual sales and prices obtained are also furnished. The fruit and produce exchanges and other agencies in the various markets are notified by wire each day of the number of cars passing South Rocky Mount for their respective markets, and in return for this information they furnish the sales on their markets and the conditions prevailing each day.

Where agents of the association are located a report is sent them by the business agent each day, showing the number and initial of each refrigerator car passing South Rocky Mount for their markets. This report reaches them from 10 to 24 hours before the cars are scheduled to arrive, and if any car fails to arrive special inquiry is instituted at once and tracer sent out for the missing car and South Rocky Mount notified promptly.

Shippers who want to divert any car en route telegraph or telephone to the business agent at South Rocky Mount, and the diversion is made either at South Rocky Mount or at Potomac Yards.

The weights used in this section are standard and the grades are determined by the producer, who packs at his farm.

Lettuce, vegetables, potatoes, and melons are generally consigned, but from 60 per cent to 80 per cent of the strawberries and dewberries are sold at shipping stations and on orders.

When the grower or shipper consigns his product he usually makes his own alliance; the terms are from 8 to 10 per cent commission.

Local buyers, as a general rule, work on a percentage basis for commission merchants in the various markets.

No sales at auction are made by producers or their agents in this section; all sales made at shipping stations are direct to buyers or their agents.

In some instances local associations cooperate in loading solid cars and, through an agent, sell on the platform at their respective stations.

The plan of marketing as adopted and followed by this association is as follows:

When the season closes a complete statement is made up by the secretary and business agent, showing the number of crates of strawberries shipped from each section, the number of cars and crates for each market from each shipping point, the estimated gross receipts, transportation and other charges, and the estimated net return to the grower and shipper. This report is made to the directors of the association at each annual meeting and by them to the stockholders.

It is feasible to market at a profit if the producer cooperates with the general association and is governed by the information furnished him daily as to the condition and movement for each market.

The expense in marketing consists in picking, packing, crating, hauling, refrigeration, transportation, and commission.

The essential elements of success employed by this association have been cooperation, effective distribution, quick dispatch, and reasonable freight rates.

#### ATLANTIC FRUIT DISTRIBUTORS (INC.) (CLEVELAND (OHIO) BRANCH).

By ALBERT McMAHON, Resident Manager.

This corporation acts as selling agents for the Atlantic Fruit & Steamship Co., and sells, f. o. b., in transit, and at destination, carlot shipments of bananas, imported at the ports of New Orleans, Baltimore, Philadelphia, New York, Boston, and, occasionally, at Galveston.

Resident managers are located at something like 20 large distributing centers, such as Cleveland, Columbus, Cincinnati, Louisville, Memphis, and Kansas City, and the managers at these centers have charge of their own and lesser markets in their immediate vicinity.

Selling operations on the cargoes arriving at Baltimore, Philadelphia, New York, and Boston are handled by the general offices of the corporation at New York, from which is sent on Thursday of each week a list showing prospective arrivals at the above ports the succeeding week.

Prices are made by telegraph to the different agencies on Friday afternoon, when the managers get in touch with their trade by tele-

graph, telephone, or personally, and endeavor to sell car lots to arrive on certain dates. Orders are given principally on Friday and Saturday (of the preceding week) and telegraphed, subject to confirmation, for shipment on the dates requested.

The buyers, as far as the sellers are concerned, are responsible for all damage in transit. Owing to the extra perishable nature of the fruit, when diversions are requested they are made, as a rule, while the car is moving. Occasionally a car is sold after arrival at a principal market, and diversion is made from there.

New Orleans is headquarters for fruit arriving at that port, and also at Galveston; and the same operation is gone through by the New Orleans headquarters of this corporation as is gone through by the New York offices.

#### MARKETING FRUITS AND VEGETABLES FROM PRODUCER'S STANDPOINT.

Growers' associations are advisable for the reason that:

(1) Through their secretary they can gather and disseminate information regarding similar crops in competing districts and establish planting, gathering, packing, grading, loading, and selling rules that will be uniform and modern.

(2) Shipments can be concentrated so that car lots of uniform quality and grade can be loaded, and the volume of production may be determined through enlightening information received. This will enable them to determine the commodities to grow and the volume of such. By doing this their brands will become established and, if they prove worthy, will create a better demand and consumption.

(3) Purchase supplies in wholesale quantities, such as seeds, fertilizers, farm implements, packages, etc.

Experience has shown that the best method of disposing of products from the producer to the consumer is through the agency of an intelligent experienced sales manager at shipping point. His duties comprise selling for cash, f. o. b., to buyers on the ground; selling for cash or bank guaranty to wholesale buyers on the consuming markets; selling f. o. b. or delivered on sight draft, bill of lading attached, to buyers both on the ground and at destination; selling to above on open account, bills payable at stated periods; loading cars and shipping to a diversion point, selling a car in transit or upon arrival at a diversion point; or, being unable to accomplish any of these transactions, consigning to commission merchants at various markets.

The local buyer is one who resides the year round at shipping point where he operates and acts as commission agent to solicit shipments, at a commission of 3 per cent on gross sales, or from \$5 to \$10 a car on bulk, or on package shipments a stated amount per package, usually from 3 to 10 cents. An itinerant buyer is one who goes from point to point acting as broker for consuming market houses or on his own account.

Salaried buyers are those hired by wholesale dealers, on consuming markets, and travel the year round from point to point dealing in general or selected commodities.

Wholesale dealers on consuming markets are those who occasionally make trips to loading stations and buy intermittently or who buy at loading stations by telegraph or telephone.

In addition to the above there are buyers who purchase crops, erect warehouses at loading stations to store products for future sale, or who ship to warehouses at trade centers.

Commission charges on fruits and produce vary from 5 to 10 per cent, according to commodity. When sales are made at auction charges are from 2 to 3 per cent.

Sales made prior to harvest are sometimes consummated, in which event a reasonable sum of money should be placed in escrow by both parties to the deal. This latter is seldom done, however, and if any money passes it is from the buyer to the seller.

Extra perishable commodities, such as berries and peaches from east of the Mississippi River, have not been sold to advantage at auction at destination. Where crops are concentrated at one or more points in producing districts, sales at auction can be made to advantage at such points.

Sales by the producer to the consumer are so expensive under present conditions as to bar such operations.

Dealers at most small markets prefer to buy products rather than handle them on a commission, because their expense will not permit a profit if only 10 per cent gross is their return on the investment.

On a market like New York most of the sales are made on the transportation company's pier upon arrival of product (bananas). No clerical or selling assistance is required other than that immediately connected with the single transaction, therefore New York dealers can afford to sell at a much lower commission than is charged in some other markets, and prefer to handle on consignment. On that market produce passes from commission merchant to the jobber, from the latter to the retail merchant, thence to the consumer.

Nearly every market of consequence has a carload broker who charges from \$5 to \$20 per car for selling to the commission merchant, wholesaler, or jobber. Sometimes this broker splits up cars, selling part of the contents to each of a number of jobbers.

Above everything else crop news are considered of prime importance to a farmers' marketing organization. Reports of acreage and conditions from time to time during the growing season enable interested persons to gauge their volume of planting and largely prevent feasts on some markets and famines on others. If each section knew what other sections planted a proper proportion of production to consumption could be fairly well established. Hastings (Fla.), for example, has little or no competition in the production of Irish potatoes; acreage there is increasing from year to year. Probably 175,000 barrels of potatoes are handled in the 40-day season from this point through commission houses or selling agencies.

Associations and individual growers should be posted daily on prices prevailing at various markets, the volume of products handled, origin of supplies, etc. A competent corps of sales managers could obtain some of this information, but the Department of Agriculture at Washington should be able to gather and disseminate much more information concerning crop conditions.

Arrangements to handle his product should be made by the producer before the opening of the shipping season with reputable commission merchants who specialize in the commodity in each market. Information of mutual interest can then be interchanged.

It is very unwise for a producer to make shipments without first advising his factor; this practice tends to overstock markets.

**ISLAND & GYPSUM FRUIT CO., GYPSUM, OHIO.**

By C. E. GERNER, Manager.

The Island & Gypsum Fruit Co., of Gypsum, Ohio, is a nonprofit corporation with issued and outstanding capital stock of \$5,000. The amount of stock issued is for building purposes only. The company handles peaches, pears, plums, grapes, quinces, and small fruits.

The objects of the company are the packing, grading, and shipping of products from a centralized point, the establishment of uniform grades and uniform packages, and relieving the growers of as much labor at farms as possible.

The company owns and operates a packing house, which is under the direction of a manager. The ungraded fruit is delivered to the packing house by the grower, and the company assumes responsibility for grading, packing, shipping, sales, and collections.

Until each grower's fruit is graded and records made thereof it is kept at the packing house in a separate container. On the succeeding day the number of bushels of each grade is figured at the average price of sales per grade made the previous day, and the grower is then credited for the amount due him for such delivery.

Occasionally throughout the season checks are issued to growers to apply on account, but there is a sufficient amount retained by the company to cover the expenses incurred in handling each grower's fruit. This expense consists of cost of packages, labor, manager's salary, cost of selling, rebates, adjustments, and losses experienced through the season, which expense usually runs about 19 cents per bushel.

This marketing cost is shared by each grower in proportion to the quantity of fruit he has shipped. His share of the cost, together with any amounts that have been advanced to him during the season, is deducted from the sums entered to his credit in his passbook. Final settlement with individual growers is usually made at end of season, which is usually about December 1. As a rule the check is given on the annual meeting day, which has a tendency to bring every stockholder or grower to the meeting, so that matters of importance concerning the corporation can be discussed by a large number of members.

**COMANCHE COUNTY FRUIT & TRUCK GROWERS' ASSOCIATION,  
LAWTON, OKLA.**

By F. W. SMITH, Secretary.

The Comanche County Fruit & Truck Growers' Association, of Lawton, Okla., has been in existence over three years. The first shipment of fruit was made in 1910, resulted in a financial loss to the association, and was very discouraging to its members. Each grower's consignments were handled by the secretary, who sold each lot on its merits. The sales were made with the understanding that 5 per cent commission would be charged by the association, but owing to the losses this charge was never made.

Much of the fruit which was shipped to Chicago, St. Paul, and Minneapolis arrived in bad condition and was sold at prices that did not cover freight and icing. The sales were made by commission mer-



chants, who charged 7 per cent on gross proceeds. The few shipments made were sold at a loss.

The principal obstacle in the way of successful fruit marketing from Oklahoma is the delay in transit, the excessive freight and icing charges, and the careless methods of the commission houses in selling produce on its arrival.

Two cars left Lawton one day apart. The first was inferior in quality to the second, and a lower selling price was expected. This first car was sold through a reliable grocer in an Illinois town of 3,500, and 55 cents a bushel was received by the grower. This occurred on what was termed a "flooded" market. The second car was shipped to Indiana, where the demand was brisk, the prices high, and the fruit was of good grade and arrived at destination in excellent condition. It was handled by a commission man, and the net returns averaged 31 cents a bushel. The commission man unloaded as easily as possible and as soon as he could get the commission.

A system of reporting market conditions for perishable products should be inaugurated in various sections of the country to protect the growers, the freight rates should be lowered, and icing charges should cover actual cost of preservation.

The delays in transit seriously interfere with the proper marketing of products of this company. Between Hastings, Okla., 35 miles south of Lawton, and Arcola, Ill., it took a car of peaches six days to make the run, in spite of wire tracers sent behind the car by shippers; and between Hastings and Fort Wayne, Ind., it took 10 days.

The carelessness of the railroads in furnishing refrigerator cars should be noted, for frequently open floors will be in evidence during the shipping season, and the grower is compelled to take such cars or suffer a further delay until another car arrives. Another complaint is based on bad odors in cars previously used for meat shipments, which cars have not been properly ventilated before other shipments are loaded.

A serious loss coming to the attention of this association was from individual shippers outside the association, who complained of the rough handling of fruit in baskets which had been placed in tiers. The rough handling causes the foundation to give way, and it is necessary to sell the product at auction in some city between point of origin and destination.

The loss this year entailed by the fruit shippers of Oklahoma will probably be enormous and can not help but discourage the fruit growers.

This will be the situation until some direct remedies are employed through the proper department of the Government.

#### HOOD RIVER APPLE GROWERS' UNION, HOOD RIVER, OREG.

By WILMER SIEG, General Manager.

The Hood River Apple Growers' Union is a cooperative marketing association composed of about 400 growers. The capital stock of \$50,000 is fully paid.

The output of the Hood River district is about 1,200 cars, of which the union controls more than half, and within two years this output will probably be doubled.

Early each season this organization establishes what is known as a "packing school," in order to teach its packers the grading and other points that enter into the proper handling of fruit.

Packers are each assigned a certain number, so that errors may easily be discovered. After the school session the packers are distributed through the Hood River Valley, as all packing is done in the orchards.

The fruit is put up in a blue-diamond label, which has been copyrighted, and the standard of quality covered by this brand is known the world over.

A large force of inspectors is employed, and they travel among the growers to see that the grade is maintained and answer questions that may arise concerning the industry.

After the fruit is packed it is delivered to the warehouse, where it is again inspected before shipment. The company operates a cold-storage plant with a capacity of about 200,000 boxes of fruit. A certain quantity is stored by the company in market centers. The storage season lasts from October to June.

It has been the experience of this organization that cooperative marketing is the right method. All fruit is pooled, and at the end of the season each grower receives a share of the proceeds in proportion to the quantity of fruit he has shipped.

The markets of this company are widespread. Shipments are made to the Orient as well as to the Atlantic points.

Sales at auction are not allowed under any condition. Shipments are made at regular intervals to dealers in both domestic and foreign markets.

The commission man is a factor in the business of this corporation. He works constantly for the shipper, and his failure to produce results at times is due more largely from carelessness of others. The expense of marketing through commission men is nominal and is fully warranted by the facilities furnished.

#### NORTHWESTERN FRUIT EXCHANGE, PORTLAND, OREG.

By C. A. MALBOEUF, Secretary.

The Northwestern Fruit Exchange is a corporate institution composed of the following local fruit growers' unions in the Pacific Northwest:

##### WASHINGTON.

Apple Growers' Union of White Salmon Valley.  
 Brewster Fruit Growers' Union.  
 Cashmere Fruit Growers' Union.  
 Chelan Fruit Growers' Union.  
 Dryden Fruit Growers' Union.  
 Peshastin Fruit Growers' Association.  
 Stevens County Fruit Growers' Union.  
 Touchet Valley Growers' Union.  
 Wenatchee District Fruit Growers' Union.

##### OREGON.

Benton County Growers' Union.  
 Cove Fruit Association.  
 Dufur Valley Fruit Growers' Association.

Eugene Fruit Growers' Association.  
 Farmers' Union Exchange.  
 Grants Pass Fruit Association.  
 Imbler Fruit Growers' Union.  
 La Grande Fruit Association.  
 Mosier Fruit Growers' Association.  
 Rogue River Fruit and Produce Association.  
 The Dalles Fruit Growers' Association.  
 Umpqua Valley Fruit Union.

## IDAHO.

Emmett Fruit Growers' Association.  
 Lewiston Orchards Association.  
 Nampa Fruit Association.  
 Weiser River Fruit Association.

## MONTANA.

Hamilton Fruit Association.  
 Victor Fruit Growers' Association.  
 Woodside Fruit Growers' Association.

The object of the exchange is to sell the fresh fruit produced by members of the local unions. An extensive system of representatives is maintained in all principal markets of the United States and in Great Britain, Canada, and Germany. The system is arranged with the view of constant improvement and expansion, commensurate with the needs of the growing traffic.

At the present time the exchange has 126 agencies in the United States, Canada, Great Britain, and Germany. Trade relations exist in many other domestic and foreign markets.

The units of the exchange are the local fruit growers' organizations, which in all cases are cooperative. The exchange deals exclusively through the local associations and not with individual growers.

The fruit is packed and made ready for shipment in the different producing sections through local associations of growers. The functions of the exchange, as the distributing or selling agency, begin with the delivery of the packed fruit.

The fundamental principle of our marketing system is sale by the growers (through their association) direct to car-lot dealers by various methods, namely, (1) in advance of harvest or shipment, (2) during the course of transit, and (3) at destination. Market or other conditions current from time to time regulate the character of sales.

The exchange assembles the marketing news from the principal centers in the United States by daily telegraphic reports. This is an essential as well as an indispensable factor in any successful marketing system. The information includes full details of prevailing prices, trade offerings, auction results, stock, weather conditions, and all other influential factors.

The data are transmitted daily in complete form to every local association. Through this medium the market news reaches each individual grower.

With the aid of accurate crop estimates required of members market conditions are determined which may or may not influence the trade in advance of shipping period.

Advance sales are usually made from one to two months prior to harvest and shipment. In 1911 the exchange sold at definite prices from 50 per cent to 75 per cent of the output of some of its members before harvest and from 50 per cent to 90 per cent before shipment.

The exchange does not sell in less than car lots.

Our fresh fruits are sold by grading rules or brands. The latter are standardized to some extent and are made known to the trade.

Eliminating berries and other soft fruits, the season of heaviest sales by producers begins with the pear movement about August 1, and, including the peach and apple tonnage, continues until about December 1. Shipments are made spasmodically until March 1 following.

The produce of each member or the tonnage as a whole is exploited, advertised, and placed before the trade in detailed form as a staple commodity or article of merchandise. The system of offerings or exploitation varies, the principal medium being daily bulletins during the selling and shipping periods.

The policy is to sell to the local buyer wherever possible.

The auction system is employed where the nature of the commodity involved and the trade preferences warrant or call for that method of distribution, as in the case of certain classes of soft deciduous fruits.

Prior to 1912 the producer utilized little storage away from the farm or the packing houses of his local association. Dry storage at shipping points, in cellars or warehouses, has been moderately used in the average season in connection with the long-keeping apple varieties. In the latter cases the fruit is frequently held until March 1. Market conditions in 1912 have resulted in the growers' use of eastern cold storage to a considerable extent under the anticipation of higher values.

The dealer or middleman has employed cold storage in his local market or at strategic distributing points east of the Rocky Mountains very largely in past seasons. Probably 50 per cent of the better grades of Northwest apples have been so treated. This includes the well-known long-keeping varieties. The duration of cold storage varies from 30 days to 6 months according to the fruit variety and other conditions.

The average distance of car haul of Northwest apples to markets east of the Rocky Mountains is approximately 2,500 miles under normal crop conditions in both the Northwest and other districts.

The principal diversion points are the terminals of the various lines serving the producing sections, namely: Portland, Spokane, St. Paul, Minneapolis, Chicago, Omaha, Kansas City, and Denver.

The northwestern apple can unquestionably be marketed at a profit in the average of years through the application of business principles which are recognized to-day as essential to the successful operations of any perishable-product industry, namely:

The tonnage to be assembled through association packing houses under competent and rigid inspection as to quality, physical condition, and finished pack;

Shipments to be sorted to the best advantage according to varieties, grades, and sizes, based on knowledge of trade preferences in each market;

The maintenance of uniform standards in quality, sorting, and pack, through practical and well-defined and properly enforced rules; accurate knowledge of market conditions, supply and demand, and other controlling factors of values, and the judicious use of same; and facilities for a distribution over the maximum range of markets and regulated supply, within reason, in order to hold trade relations and confidence from season to season.

Some of the difficulties encountered are: (1) Improperly assembled products in respect of varieties, grades, sizes, quality, application of grade rules, pack, and other physical conditions; (2) congestion of markets through indiscriminate shipping by individual growers and independent shipping companies who lack general knowledge of market conditions and proper facilities for distribution.

Some of the essential elements of success actually employed are: (1) Avoiding congested centers and utilizing markets removed from the influence of the congestion and other competitive factors, under which policy, combined with the constant effort to secure greater introduction and distribution, 179 different markets have been utilized in the past two seasons; (2) due and careful regard for supply and demand and other controlling market factors which has enabled the exchange to obtain for the growers a consistent and correct value for their products.

#### PACKING AND GRADING RULES.

##### APPLE PACKS.

*Apple packages.*—The exchange advocates the exclusive use of the "northwestern standard" apple box—often known as the Oregon, Washington, or Idaho standard box. The "special" or California box is packed to some extent in some districts, but its use is becoming more limited each year, and at the present time the "standard" is almost universally employed in the Northwest.

The number of apples packed per box varies widely, according to the size and shape of the fruit. The following range of sizes is submitted here as a matter of information, but it is not to be recognized as a standard or generally practiced schedule. Most of the numbers shown are commonly packed in all districts: 36, 41, 45, 48, 56, 64, 72, 80, 88, 96, 100, 104, 112, 113, 125, 128, 138, 150, 163, 175, 188, 190, 198, 200, 216, 225, 234.

*Style of pack.*—The exchange indorses the exclusive use of the so-called "diagonal" pack.

*Tier packs.*—There is a variation in the application of the term "tier," as compared with the number of apples per box it is intended to represent. Different bases are used by different shippers or districts, according to custom. No uniform method prevails. The extreme ranges employed are as follows:

3-tier: 48 to 64, inclusive, vs. 36 to 56, inclusive.

3½-tier: 72 to 88, inclusive, vs. 64 to 96, inclusive.

4-tier: 96 to 128, inclusive, vs. 104 to 128, inclusive.

4½-tier: 138 to 163, inclusive, vs. 138 to 175, inclusive.

5-tier: 175 to 216, inclusive, vs. 188 to 225, inclusive.

NOTE.—In making sales on the basis of tier specifications it is understood that the shipper's classification of counts will govern.

## GRADING RULES.

*Northwestern Fruit Exchange grading rules.*—The following rules have been officially adopted by the exchange, and will be closely followed by its shipping membership in 1912, with slight exceptions, as noted hereinafter:

Extra fancy: This grade shall consist of sound, smooth, well-formed apples only: free from all insect pests, disease, blemishes, and physical injuries: free from worms, worm holes, stings, scale, scab, sun scald, fungus, dry rot, decay, water core, spray burns, limb rub, russeting, skin puncture, skin broken at stem.

All apples must be of natural color and shape, characteristic of the variety. Apples heavily coated with dirt or spray must be cleaned.

Color requirements for this grade are as follows:

Solid red varieties, like Arkansas Black, Gano, Jonathan, Missouri (Pippin), Spitzenburg, Winesap, etc., must have at least 75 per cent of good natural color. McIntosh Red must have at least 66 $\frac{2}{3}$  per cent good natural color.

Striped or partially red varieties, like Ben Davis, Delicious, Rome Beauty, Stayman Winesap, etc., must have at least 50 per cent of good red color.

Red cheek or blush varieties, like Red Cheek Pippin, Winter Banana, etc., must have a distinctly colored cheek or blush.

Sizes in this grade shall not be smaller than one-hundred-and-seventy-fives, except that Jonathan, Missouri Pippin, and Winesaps may be packed as small as two-hundreds.

Fancy: Apples in this grade must possess the same physical requirements as to soundness and freedom from insect pests, disease, blemishes and physical injuries or defects, as in Extra Fancy, with the exception that minimum defects, such as slight limb rub and russeting may be accepted. Broken or punctured skin will not be permitted. Slight deviation from proper form may be included, but this will not include clearly misshapen fruit. Fancy grade must be considered as representing strictly first-class commercial fruit, fit for any market. Apples heavily coated with dirt or spray must be cleaned.

Color requirements for this grade are as follows:

Solid red varieties (including McIntosh Red) must have at least 33 $\frac{1}{2}$  per cent of good natural color.

Striped or partially red varieties must have at least 20 per cent of good red color.

Red cheek and blush varieties must have correct physical qualities, without requirement as to color.

Sizes in this grade shall not be smaller than one-hundred-and-seventy-fives, except as follows: Newtown Pippins, and other yellow or green "pippin" varieties, may be packed up to two-hundred-and-twenty-fives, inclusive. Solid red varieties may be packed up to two-hundreds, inclusive, when containing not less than 50 per cent of good red color. Winesaps and Missouri Pippins may be packed as small as two-hundred-and-twenty-fives when of not less than 75 per cent of good natural color.

C grade: This grade shall be made up of all merchantable apples not included in the extra fancy or fancy grades. Apples must be

free from all insect pests, worms, wormholes, disease, or physical injuries, including skin puncture and broken skin. No requirements as to color except that the fruit must not be clearly immature.

Sizes may be as small as two-hundreds, except under unusual circumstances.

#### SALEM FRUIT UNION, SALEM, OREG.

By JOSEPH N. SMITH, Manager.

The Salem Fruit Union, of Salem, Oreg., is a corporation composed principally of fruit growers, organized for the purpose of marketing fruit grown by its members. The business is conducted by a manager under the supervision of a board of directors elected by the stockholders.

The fruit is delivered by the growers to the union warehouse, where it is graded, packed, and labeled.

When it is possible to find a suitable market the fruit is sold outright. When a suitable market can not be found for the fruit f. o. b. warehouse and markets appear to be favorable in the larger distributing centers the fruit is sometimes consigned to brokers for selling. When the market appears to be overstocked with fresh fruit or if prices do not seem to justify immediate sales the fruit is either canned or evaporated in order to preserve it until such time as the market justifies selling.

In order to show the manner of distribution and sales in use by the union the commodity of evaporated prunes is taken as an example. This fruit is gathered and evaporated by the grower and afterwards delivered to the union warehouse in bags, he having previously agreed to deliver to the union his entire crop estimated at a certain tonnage. These prunes are then graded by means of machinery into sizes designated as 30/40, 40/50, etc., these numbers meaning the number of prunes to the pound. The prunes after grading are placed in bins according to the grades, losing their identity as certain growers' prunes, but belonging to the pool. Each grower receives credit for a given number of pounds of a given size, and settlement is finally made with him on this basis, the value being regulated almost entirely by the size. The prunes are next sterilized, processed, and packed in paper-lined boxes and labeled with attractive lithograph labels.

The pool members meet and agree among themselves as to the price they will ask for their pooled fruit. This price is wired by the manager to brokers throughout the United States, England, and Germany. With the exception of export sales, prices are made f. o. b. shipping point, and drafts for the payment of the fruit are drawn, attached to bill of lading, and cashed at the local banks. For export sales prices are made c. i. f. point of delivery.

After the sales of the entire crop are made a settlement is effected with the growers, a charge being made to them for packing, storage, and commission and a credit given them for the entire amount received from the sale of their product.

The manner of disposing of the fruit has proved satisfactory, as the members of the union are getting the full amount of the market price for their product. Even the growers who do not take ad-

vantage of selling through the union realize a better price for their fruit because of the necessity of local buyers paying very nearly the same price the union can realize in order to secure any business.

In addition to the market news given in magazines and papers taken by the fruit grower, he at all times has access to any advice the manager of the union may have received from various market centers, and, by the use of the telephone, can keep in daily touch with the market without additional expense to himself.

One objection urged by some middlemen to the marketing of fruit through the union is the necessity of waiting until after the fruit is all disposed of before payment to the growers of the total amounts of the sales. The advantage of receiving payment in full on the day of delivery is emphasized by local buyers and is their strongest talking point. This objection is, in a measure, overcome by the union advancing to the grower at the time of delivery 75 per cent of the estimated value of his crop.

Experience has shown that a plan adapted to marketing one kind of fruit does not apply to another. For instance, dried prunes keep in a marketable condition for a long time, while fresh fruit must be disposed of at once.

It is believed that a cooperative union or association such as this, controlling as it does the sale of a large quantity of fruit, has a great advantage in obtaining markets over individual growers with a limited output.

#### HUMBOLDT FRUIT GROWERS' ASSOCIATION, HUMBOLDT, TENN.

By L. R. DUFFEY, Manager.

The Humboldt Fruit Growers' Association, of Humboldt, Tenn., was organized several years ago for the purpose of obtaining for its members better prices for their products, which are principally strawberries, cabbage, and tomatoes; and to say that we have succeeded expresses it mildly.

About 50 per cent of the growers in this community are members of this association; the other growers prefer to sell to local buyers and receive their pay when the goods are sold.

In order to retain the patronage of a customer, and when products are not obtainable from members of the association, the manager is authorized to purchase from growers who are not members.

The strawberry season commences about May 1. The manager advertises his products in the fruit papers and keeps in close touch with buyers during the early spring. Shipments of cabbage are made in carload lots about May 25 and continue about one month, and shipments of tomatoes are made from June 25 to August 1.

The growers deliver their products to the manager, who has an inspector carefully examine each package. If goods are found up to the standard they are accepted by the manager and a receipt given the producer; but if the goods are not up to the standard they are rejected, in which event the grower may either repack them or ship them on commission to the best market he can find. The manager generally helps him in selecting a market.

The manager's bond is fixed at \$10,000.

Products are usually sold the day they are delivered to the manager, either to buyers on the ground or by wire to commission men in



northern cities. Bank guaranties are required from the purchaser if his credit is not established; on the other hand, shipments are frequently made on open drafts. When the market is weak or depressed shipments are often rejected, and it is necessary to have a commission house sell them or to make a reduction in price in order to have the car accepted.

When the proceeds of sale are received the manager deducts his commission, which is 3 per cent on strawberries and 5 per cent on cabbage and tomatoes. An average is then computed for the sales of the day and payment is made to each member according to the number of packages he had on that day. The same plan is followed with cabbage and tomatoes.

The expenses of marketing the output of this association include: (1) An inspector, who is paid \$1.50 per carload; (2) telephone and telegraph bills, which are frequently heavy; and (3) a bookkeeper employed through the season of about three months at \$25 per week.

#### **BEE COUNTY TRUCK GROWERS' ASSOCIATION, BEEVILLE, TEX.**

By F. E. PERKINS, Secretary.

We consign all our products through the Southern Texas Truck Growers' Association, to whom we pay a commission of 5 per cent.

The shipping season lasts from February 15 to June 1, and the principal products marketed include Irish potatoes and California pink beans.

Our country is a corn and cotton country, and we are just beginning to try to raise other products and diversify more. Our markets are very bad: in the season when garden truck is raised it has no value here, as the majority of the people have their little kitchen gardens and the local markets are unable to handle it.

As a rule, shipping garden truck from this section has been unsatisfactory, for many times the produce leaves here well packed and goes through by express, but the consignees wire back that it is not in shape for the market and they are unable to handle it. This applies to individual growers, not to this association.

#### **EASTERN SHORE OF VIRGINIA PRODUCE EXCHANGE, ONLEY, VA.**

By N. P. WESCOTT, Assistant Secretary-Treasurer.

The Eastern Shore of Virginia Produce Exchange is a cooperative marketing association, organized under the laws of Virginia January 6, 1900. Its activities are confined to an area of about 700 square miles of the peninsula between the Chesapeake Bay and the Atlantic Ocean, and the principal products marketed by the association include Irish and sweet potatoes, strawberries, cabbage, and onions. At present the output of 2,500 to 3,000 farmers is marketed.

Two million packages, mainly barrels, of produce were marketed in 1911, and during the current year, 1912, over 4,600 cars of Irish potatoes, 230 cars of strawberries, about 150 cars of cabbage, and 100 cars of onions. The total number of cars of sweet potatoes that will have been shipped by the middle of November will reach about 3,200.

The volume of trade for 1912 will aggregate about \$3,000,000. Shipments are made to all sections of the United States except the Pacific coast, and also to a number of Canadian markets.

No member of the association is permitted to turn any part of his produce over to local solicitors or sell any part of it to speculative buyers to be sold in competition with the goods of the association. A person can secure membership by becoming a stockholder, the tenant of a stockholder, or by purchasing (for \$1) a "shipping" privilege.

The association is divided into 34 local divisions, each of which includes from one to three or four shipping points. Each local division elects annually a director of the general board and an agent for each of its shipping points.

A local inspector is appointed for each shipping point, but in order to keep these inspectors as free from local influence as possible their selection is left to the board of directors instead of to the local divisions. The general office of the association is located at Onley, Accomac County, Va.

The administration of details of the business and, in a large measure, the shaping of its general policies have been left to the general manager and the secretary-treasurer of the association.

The shipping season begins with strawberries, about May 1, and extends with a succession of products until December, when the last of the sweet potato crop is handled.

The produce is brought in carts or wagons to shipping stations. Here the local inspector examines each load, being required to empty at least one barrel from each load of Irish or sweet potatoes. If the standard of the association as to size and filling of packages and quality, condition, and culling of contents has been maintained, the inspector permits the burlap or cotton tops of the barrels to carry the "Red Star Brand," the registered trade-mark and official seal of the association.

If the requirements of the association are not maintained the inspector loads the produce into an "unbranded" car, or they are consigned to an official selling agent of the association to be sold upon examination by the buyer in some of the near-by eastern markets.

The local agents keep records of all deliveries of produce, and after sale distribute to individual growers the proceeds when received from the general office in the form of a check covering the entire day's sales.

All sales are made by the sales department at the general office upon telegraphic quotations, open for acceptance only on date of offer, and each day's loading is cleaned up before the following day.

In determining prices the general manager and his assistants are guided by information from two sources:

From a private switchboard in the general office constant telephonic communication is maintained with each of the 44 shipping points. Early each morning the local agent at each point informs the general office of the probable extent of his loading for the day, and at intervals during the day gives information as to the number of cars actually loaded and awaiting sale. The question of supply is in this way accurately gauged; that of demand is covered by telegraph.

Full telegraphic information is received daily from the New York representatives of the association and from its five resident salesmen in other market centers of the United States and Canada as to the exact conditions there prevailing and the offerings and supplies received from other producing sections.

In addition to five resident salesmen in certain market centers local brokers are employed in a number of markets. In a great number of other markets, embracing probably a majority of those in which the association sells, direct telegraphic communication is maintained with wholesale buyers, and sales are made and adjustments effected without any intermediation.

In one season the item of telegraphic expense of this association reached a total of \$20,000, but the use of a private code has reduced this expense.

Sales are made f. o. b. loading point, the buyer to assume the risk of delay or normal deterioration in transit. Many losses are sustained each season from damage to or defects in produce which can not be shown to have arisen from causes fairly included within the risk taken by the buyer. These losses and those resulting from occasional bills found to be impossible of collection are borne by the association, and the individual shipper is guaranteed against every sort of loss except that arising from the possible decay of his goods which would most probably have resulted from improper handling in the field or lack of reasonable care in protecting his products from extremely hot or cold weather. In general, however, even this exception is not insisted on, and it is the usual practice of the exchange to pay in full for all produce delivered to it, regardless of losses, except during occasional periods of extreme weather conditions and after express warning has been given of the need of extra care.

All expenses of the exchange are met by a commission of 5 per cent on the goods sold by it, and a rate of 3 per cent on the small quantity of produce, chiefly odd lots and off-grade goods, which it consigns to official selling agents in near-by eastern markets. Out of these commissions a surplus of about \$80,000 has been accumulated in favorable years, and this, with the paid-in capital stock of \$42,000, is deemed a sufficient working capital. Henceforth only one-half of the annual net earnings is to be carried to the surplus fund, and the remainder shall be distributed each year among all the exchange shippers in proportion to the amounts of produce they contribute.

During the 12 years of its existence the exchange has vastly expanded the territory available as a market for its products, and the total production of farm products in its territory has been trebled.

Through its insistence upon certain requirements as to quality, enforced by its inspection system, the exchange has conferred an enormous benefit upon its members, upon the consumer, and upon the produce trade of the country in general. It has standardized the products in which it deals, and has largely eliminated the vast economic waste involved in the old-fashioned promiscuous and chaotic manner of culling and packing farm products. In addition, a higher range of prices for Eastern Shore products has been secured for members of the exchange.

## VIRGINIA FRUIT GROWERS (INC.), STAUNTON, VA.

By CLARENCE W. MOOMAW, General Manager.

The Virginia Fruit Growers (Inc.), of Staunton, Va., had its origin in the Shenandoah Valley Fruit Growers' Association, which was organized in 1908. The corporate name was changed in the spring of 1911 to the present one. This is a stock company, chartered under the laws of Virginia. The shares sell at \$10 par, and the capital is \$50,000 maximum and \$10,000 minimum. The membership is limited to car-lot growers of the valley of Virginia and vicinity. The organization has as its object the marketing of fruit crops and purchasing certain supplies for its members.

By contract, the organization takes full charge of the crops f. o. b. shipping point, the fruit being packed by the growers under the supervision of the organization inspectors and branded with the organization brands. The contract between the grower and the association gives the latter power to make disposition, but it has been the invariable policy of the management to confer with each grower relative to the disposition of his stock, complying as far as possible with the individual desires of its members.

Most of the fruit is sold f. o. b. shipping point or exported to England, Scotland, or Germany. A certain amount is consigned to home markets, where the consignments are handled by agents selected from among the most reliable commission merchants.

A demand for the brands of the Virginia Fruit Growers has been very successfully developed both at home and abroad, and, as a matter of fact, this was the first American growers' organization to have its own representative stationed in a foreign market. During the past three seasons the organization has operated abroad through a special agent stationed at London. The foreign shipments of the organization go to its special agent, and are then distributed for sale to the most reliable brokers in the different European markets. This system has been of great benefit to a large number of growers, and an analysis of foreign sales this year shows that the average price received by the Virginia Fruit Growers was about 3 shillings per barrel above the average of other shipments from this State.

Sales made f. o. b. cars shipping point for shipment to markets of the United States have also shown a large advance in price over the sales made independently by growers to speculators; the difference in favor of the organization sales ranging from 50 cents to 75 cents per barrel net.

One of the chief works of the Virginia fruit growers from the beginning has been the standardization of the Virginia pack. This year the packing conforms to the specifications of the Sulzer law, which does not go into effect until July 1, 1913.

While, as heretofore stated, the packing is done by the grower, the organization employs the most efficient expert packers they can secure to go from orchard to orchard and from car to car instructing growers and packers and reporting to the management any violation of the packing rules. The fact that but two or three rejections and eight or ten small adjustments have been made is rather significant that the work in this respect is being done well.

The organization charges its members for the agency service at the rate of 5 per cent commission on f. o. b. sales, 10 per cent on consignments to the home markets, and 5 per cent gross and 5 per cent net on foreign consignments, the first 5 per cent taking care of foreign commission and the second 5 per cent taking care of the home office, the total commission being approximately  $7\frac{1}{2}$  per cent or 8 per cent gross.

The supply department is also being gradually developed, and purchases are made of all packing supplies, such as barrels, boxes, carriers, baskets, cushions, corrugated caps, etc. Spray materials have also been bought at a considerable reduction in cost to the grower.

The organization now has a membership of about 200 fruit growers, many of whom represent large interests and large full-bearing orchards, while many represent large orchards just coming into bearing. During the last two seasons the membership has included growers in 12 or 14 counties and is steadily and surely growing.

In the past three seasons approximately \$500,000 worth of fruit and supplies have been handled, and, granting a normal crop for Virginia, the organization should handle from \$300,000 to \$500,000 worth of business next season (1913).

#### THE VIRGINIAS FRUIT EXCHANGE, CHARLES TOWN, W. VA.

By WILLIAM CAMPBELL, Secretary and Manager.

The Virginias Fruit Exchange is a cooperative organization of fruit growers which aims to make not more than simple interest on its capital and to insure to its members fair market prices for their products and equitable treatment from transportation companies. Improved packing and uniformity in grading are sought through the dissemination of information and through actual demonstration.

Each member is required to execute a contract giving the organization control of the marketing of his crop. The form of contract is as follows:

#### VIRGINIA FRUIT EXCHANGE—GROWER'S CONTRACT.

Original.

This agreement, made the \_\_\_\_\_ day of \_\_\_\_\_, 1911, between \_\_\_\_\_ party of the first part, and The Virginias Fruit Exchange, party of the second part, witnesseth:

That the said party of the first part doth hereby appoint said party of the second part as his sole agent to sell directly or through subagents the entire output of his apple, peach, and pear orchards on his farm located in \_\_\_\_\_ County, \_\_\_\_\_ for and during the years 1911, 1912, and 1913, the said party of the second part having the exclusive right to determine how such output shall be sold, and the said party of the first part doth further agree as follows:

First. To pay said party of the second part for its services 10 per cent of the selling price on all domestic consignments made by said party of the first part to said party of the second part or to its subagents within the United States, appointed by said party of the second part, this commission to cover all commissions on such consignment sales.

Second. To pay said party of the second part 5 per cent of the selling price and 5 per cent of the gross returns on all consignments made through said party of the second part or its subagents to subagents located in a foreign country appointed by said party of the second part, these commissions to cover all commissions on such consignment sales.

Third. To pay to said party of the second part 5 per cent of the selling price on all orchard, f. o. b., and storage sales, this commission to cover all such sales.

Fourth. That if said party of the first part shall fail to comply with this contract in disposing of the output of his said orchards, then he shall pay the said party of the second part the same commission on the sale or sales so made by him as if such sale or sales had been made in accordance with the provisions of this contract.

Fifth. That this agreement shall continue in force for the period of three years from and after March 1, 1911, and shall at the expiration of that period terminate and cease to be binding; provided, however, the said party of the first part reserves the privilege of cancelling this agreement after the first year by giving written notice of his intention to do so to said party of the second part, prior to March 1, 1912, or March 1, 1913, conditioned upon the payment of any existing indebtedness owing by him to said party of the second part.

And the said party of the second part hereby covenants to discharge its duties as agent as aforesaid faithfully.

Witness the following signatures and seals, the seal of said party of the second part being its corporate seal hereto attached by its president.

Remarks: \_\_\_\_\_

\_\_\_\_\_. [SEAL.]

By \_\_\_\_\_, Its President.

After the contract has been signed by a member, the exchange endeavors to get an "f. o. b." offer for his fruit. This is not always possible, however, and in such cases shipment is made to the best available market. In case of a glut or temporary depression the fruit is put in cold storage, either at shipping point or at destination, to await an improvement in market conditions.

The commission charges paid by members are used by the exchange to defray costs of marketing, and any excess of receipts over expenditures is returned to the members in the form of dividends on their shares of stock.

The main advantage of the exchange is that it insures a full market price for the crop, since speculators know that unless they offer a fair figure purchases can not be made. In many instances speculators have offered more than market conditions justified, and their offers were accepted.

The exchange, moreover, has saved its members the difference between retail and wholesale prices by purchasing spraying materials, packages, and other supplies.

Another advantage is the assembling of less-than-car lots of apples, peaches, and other products, by which the small shipper has been enabled to escape payment of the less-than-carload rate on his fruit.

Indirectly, the growers have profited by the amount of their stock investment many times over, owing to enhancing values.

Results of the first season's operations were summarized in the advance report for 1910, as follows:

*To the Stockholders of the Virginia Fruit Exchange.*

GENTLEMEN: The following information is given in advance of the formal report now in the hands of the printer and to be submitted in detail by the manager and treasurer at the adjourned meeting of stockholders to be held in Martinsburg on February 1:

Under its by-laws the exchange's fiscal year ends December 13, 1910, up to which time the exchange had done a business of nearly \$70,000, with a large

amount of fruit in cold storage of the crop of 1910 yet to be disposed of, which will probably make the total business of the exchange for the season approximate, if not exceed, the sum of \$100,000.

The capital of the exchange will have been sufficiently increased by earnings to provide for the payment of a dividend, and every liability of the exchange has been met and it has no debt. It has assets consisting of supplies, cooperage, etc., all paid for and available for sale next season.

It is hoped that this showing will be satisfactory to the members of the exchange and result in a largely increased membership and commitment of crops during 1911, with the resultant benefit of better prices to those availing themselves of the marketing methods of the organization.

It should be explained that indirectly the exchange has benefited not only the members, but fruit growers generally throughout the territory in which it operated, by bringing about competition and preventing a combination of buyers securing fruit at less than fair market prices.

Owing to the abnormal condition consequent to the enormous crop throughout the country—by far the largest on record—and for the reason that the exchange methods could not properly be demonstrated in certain peach-growing sections where it was not deemed expedient to compete with the local organization, looking to an alliance in future, and owing to the fact that the crop had already begun to move before the exchange organized and was ready to handle it, the operations in the peach belt were not extensive.

As a result of the protest made before the Interstate Commerce Commission by the manager in behalf of the exchange and consequent suspension of increase in rate during the peach and apple shipping season, a saving in cost of transportation estimated at over \$50,000 was effected.

In the apple belt the helpful benefits accruing to growers generally, owing to the existence of the exchange, were so manifest that it has had a number of commendatory letters from members and nonmembers to the effect that, in the conservative judgment, anywhere from 25 cents to \$1 a barrel more was obtained in the absence of such a protective association as ours. Some of these testimonials are herewith submitted.

Estimating the crop of the four counties of Berkeley, Frederick, Jefferson, and Clarke alone at only 300,000 barrels (and the exchange handled business also from Warren, Fauquier, Rappahannock, and Loudoun Counties), which is considerably under the output, and placing the enhancement in price at only 35 cents per barrel, it will be seen that the growers of this section received not less than \$100,000 more for their apples this season than they would otherwise have done had the exchange not been organized.

During the first season of operation the exchange did not require of its members that they should commit their crops to it for sale, and in numerous instances advised members who were under commitment to sell outside of the exchange when speculators were willing to pay more than the existing market price, with a view to storing apples at the risk of getting lower prices in the spring.

It is certain that those members who sold through the exchange, and especially those who were not insistent on rushing their apples to market, received better prices than those who sold out earlier to speculators and spot buyers.

In some instances, by using the exchange as a lever, members succeeded in obtaining an advance amounting to 50 per cent on the price offered.

By concert of action only were such results possible, and it is hoped that during the coming season growers generally will pool their interests and stand by the exchange in increasing numbers.

As an evidence of the scientific methods of marketing and thorough distribution it may be stated that car lots were made during the season to the following points:

New York; Cleveland, Ohio; Dayton, Ohio; Cincinnati, Ohio; Columbus, Ohio; Galveston, Tex.; Beaumont, Tex.; Texarkana, Ark.; St. Louis, Mo.; Pittsburgh, Pa.; Chicago, Ill.; Philadelphia, Pa.; Oil City, Pa.; Milwaukee, Wis.; Macon, Ga.; Nashville, Tenn.; Meridian, Miss.; Peoria, Ill.; Brooklyn, N. Y.; Indianapolis, Ind.; Boston, Mass.; Dublin, Ga.; Knoxville, Tenn.; Chattanooga, Tenn.; Montgomery, Ala.; Detroit, Mich.; Middlesboro, Ky.; Birmingham, Ala.

Very satisfactory results have also been obtained on apples recently exported by the exchange to British markets.

## BY-LAWS OF THE VIRGINIAS FRUIT EXCHANGE.

[Adopted at meeting April 21, 1910.]

## ARTICLE 1.

The name of this corporation shall be the Virginias Fruit Exchange.

## ARTICLE 2.

*Trustees.*—The corporate powers of the Virginias Fruit Exchange shall be vested in a board of fifteen (15) trustees, who shall be stockholders, each owning not less than ten (10) shares, fully paid, of the capital stock in his or her name, as shown by the stock book of the exchange, and each trustee must be an owner of a commercial orchard.

## ARTICLE 3.

*Election of trustees.*—The trustees shall be elected by ballot at the annual meeting of the stockholders, and shall serve for one year, or until their successors shall have been elected. Should any trustee elected decline to serve, the vacancy shall be filled by the president.

Five (5) trustees shall constitute a quorum for the transaction of business.

## ARTICLE 4.

*Powers of trustees.*—The trustees shall have the power—

First. To call special meetings of the stockholders.

Second. To remove, for cause, any officer or employee of the exchange, and fill such vacancies thus created until the next regular meeting of the stockholders.

Third. To conduct, manage, and control the affairs and business of the exchange, and to make such rules and regulations for the management and control thereof, that shall not be in conflict with its by-laws, the articles of its incorporation, the laws of the States of West Virginia and Virginia and the United States.

Fourth. To appoint from their board an executive committee of five (5), of which committee three (3) members shall be a quorum; an auditing committee of three (3), and such other committees as they deem necessary, and define the powers thereof.

## ARTICLE 5.

*Officers.*—The officers of the exchange shall be a president, first and second vice presidents, manager, and treasurer, who shall be elected by the stockholders at their annual meeting, and shall hold their office for one year, or until their successors shall have been elected, and shall serve without compensation other than their per diem and mileage when attending meetings of trustees and executive committee.

There shall also be a secretary, which office shall be filled by the manager, as hereafter provided.

*President, duties of.*—The president shall preside at all meetings of the stockholders and trustees; shall sign all certificates of stock and such other contracts and instruments in writing previously authorized by the board of trustees or executive committee; shall call meetings of the trustees or the executive committee, when he deems it necessary for the best interests of the affairs of the exchange, or upon written request of five (5) members of said board of trustees, and shall have a general supervision of the business affairs of the exchange, subject to the control and advice of the executive committee.

The *vice presidents* in their order shall, in the absence or disability of the president, perform the duties of that office only so long as the absence or disability shall necessitate.

The *treasurer* shall keep in safe deposit all moneys in possession of the exchange and intrusted to his charge, and shall disburse same upon warrants drawn upon him and signed by the manager, or under the direction given in writing of the executive committee. At each annual meeting of the stockholders he shall submit a complete statement of his accounts, with proper vouchers for



each payment and transaction, and shall submit such other statements from time to time as the trustees or executive committee may demand. He shall execute such bond as the trustees demand, and this bond shall be sufficient in amount and of such easily convertible nature that will insure the exchange in any loss or irregularity that may arise from any and all causes.

*Manager.*—The board of trustees shall employ a manager. His compensation shall be fixed by the board of trustees and his employment shall be by contract, executed under the direction of the board of trustees and the executive committee of the affairs of the exchange, and shall be accountable for his actions solely to the above-mentioned board and executive committee. He shall have authority to employ all help required for the conduct of business and fix their compensation, except that where a salary in excess of \$100 per month is to be paid the same must receive the approval of the executive committee, and he shall have the right to discharge or release all such employees, but no contract with any employee shall extend beyond the fiscal year, said fiscal year in this exchange ending December 1 of each year. He shall investigate and secure all information in regard to all markets and selling agents, and shall enter into contracts with them, subject to the approval of the executive committee. He shall require such selling agents to give satisfactory bond and evidence of moral and financial standing.

The manager shall have authority to issue warrants upon the treasurer for all funds necessary in the ordinary and usual conduct of affairs of the exchange, said ordinary and usual expenditures to be previously specifically named by the executive committee. All extraordinary expenditures must be at all times submitted to the executive committee, and the manager shall be accountable to the board of trustees and executive committee for sums thus disbursed.

The manager shall give bond such as is demanded by the executive committee, but in no case shall this bond be less than five thousand dollars (\$5,000).

The manager shall also perform the duties of secretary of the exchange and shall keep a record of the proceedings of the meetings of the stockholders, the trustees, and the executive committee, and these records shall be at all times accessible to any stockholder of the Virginias Fruit Exchange.

He shall issue calls as secretary for all regular and called meetings of the trustees and executive committee and of the stockholders when directed to do so by the president, by five (5) members of the board of trustees, or by the written demand of thirty per cent of the stock outstanding on the books of the exchange.

He shall sign, as secretary, all certificates of stock and all documents authorized by the trustees or executive committee.

For his service as secretary he shall receive no additional compensation.

*Assistant manager.*—The manager may employ an assistant manager, previously approved by the executive committee, whose compensation shall be fixed by the executive committee, who, in addition to the duties that may be prescribed by the manager and executive committee, shall countersign all warrants drawn upon the treasurer and shall be responsible to the executive committee for such warrants countersigned, and shall give bond in such amount as demanded by the executive committee, which bond in no case must be less than \$5,000.

*Executive committee.*—The board of trustees shall elect from their members an executive committee of five (5) members, three (3) of whom shall constitute a quorum for the transaction of business, and said executive committee shall have charge and supervision of all affairs of the exchange during the recesses of the board of trustees and shall be responsible to the said board of trustees for their actions. The president shall be ex officio chairman of this committee, but the committee may elect its own chairman in case the president voluntarily declines to serve or is absent from its meetings. The chairman so selected shall continue to serve during the life of the committee from which he was elected.

The auditing committee shall be appointed from the members of the executive committee and shall audit the disbursements and accompanying vouchers at each regular or called meeting of the executive committee or auditing committee and submit their findings to the executive committee in form, and shall also examine the treasurer's holdings at any time it may see fit. This committee shall designate its own chairman, and said chairman shall serve during the life of the executive committee from which he was elected.

*Meetings.*—The stockholders shall meet annually in Romney, where the official quarters shall be established, on the second Tuesday in December of each

year to hear reports of officers, elect officers, and transact any business that may be deemed necessary by the majority of the stock present and represented in person or by legal proxy.

Notice of such meetings shall be mailed to each stockholder at least ten days prior to said meetings.

Special meetings of the stockholders may be called by the president or as prescribed in these by-laws, but no business other than that for which the meeting was called can be legally transacted at said called meeting.

At all stockholders' meetings each stockholder shall be entitled to so many votes as shares of stock owned by him or her, and said shares may be voted in person or by proxy.

*Trustees.*—The trustees shall meet immediately after the adjournment of the regular annual stockholders' meeting, and at such other times as they see fit or are officially called together. Special meetings may be called as hereinbefore prescribed.

Trustees shall receive when attending meetings of the board and the executive committee five dollars (\$5) per day for time actually in attendance and the transportation actually paid by them in coming and going.

Should any official decline election or resign, his office shall be filled by the trustees until the next general stockholders' meeting, when his successor shall be elected.

*Executive committee.*—The executive committee shall meet monthly on such dates as they may fix at their previous meeting.

*Stock.*—Certificates of stock shall be signed by the president and countersigned by the secretary, and the secretary shall issue same and keep records thereof, and he shall be the transfer agent of the exchange.

No stock shall be entitled to vote that is not outstanding in the name of the person desiring to vote same, and the transfer books of the exchange shall be closed five days before each annual meeting of the stockholders.

These by-laws may be amended at any meeting of the stockholders by a majority vote of the stock then outstanding.

#### ARTICLE 6.

A majority of the stock issued, or five stockholders holding not less than 50 per cent of the stock of the exchange, represented in person or by proxy, shall constitute a quorum of stockholders.

#### ARTICLE 7.

Any action of a majority, although not at a regularly called meeting and the record thereof, if not dissented to in writing by the other members of the board of trustees, after notice shall always be as valid and effective in all respects as if passed by the board in regular meeting assembled.

#### ARTICLE 8.

Notwithstanding the location of the principal office the corporation may transact business and have an office or offices at such other place or places, and may own property and carry out the purposes for which the exchange was incorporated, at such other place or places as the board of trustees may authorize.

#### ARTICLE 9.

No officer or trustee shall be interested in the manufacture or sale of any article or commodity dealt in by the exchange.

**EASTERN FRUIT GROWERS' ASSOCIATION, MARTINSBURG, W. VA.**

By NAT T. FRAME, Secretary.

MARKETING PRACTICES IN THE REGION COVERED BY THIS ASSOCIATION.

The Eastern Fruit Growers' Association is a federation of commercial fruit growers, State, and local agricultural societies, the members of which are principally engaged in the apple and peach industries.

The peach season extends from July to October, and sales are made as fast as the different varieties ripen for market. In a few sections summer apples are shipped through the season, but the bulk of the apple crop is harvested in September and October, usually on contracts made in August and September.

A small percentage of the output of the various members of this association is shipped on consignment to commission merchants. A commission of 10 per cent is charged when such sales are made.

The bulk of the products are marketed through local buyers who represent large fruit dealers and who buy at local shipping stations for cash. Very few sales are made at auction.

Sales are frequently made several weeks before picking time at a definite price per basket or barrel; and infrequently a crop is sold for a lump sum irrespective of the quantity secured at picking time.

Many growers have lists of consumers to whom they make sales annually.

Several local associations sell their output through regularly established commission agencies, and some progress has been made by one or two of these associations in selling direct to retail dealers.

Peaches shipped to central markets like New York, Philadelphia, and Baltimore are distributed by the commission houses to retailers in less than carload quantities; frequently carloads are reconsigned by these commission men to smaller near-by markets.

Very few producers store their products. Occasionally apples are hauled from the trees into common (not refrigerated) storage where they are kept until cold weather, thereby giving the grower opportunity to sort and pack them at leisure. A few producers are accustomed to store small quantities, especially of the better grades, in local refrigerating warehouses; and very few place their entire crop in cold storage for better market conditions. It is almost the universal practice, however, to take the price obtainable in the fall rather than take the chance of storing.

The one thing most needed by the producers, both of peaches and apples, is reliable market news. This will enable them to get proper values out of their crops.

A great many fruit growers, particularly in the section of West Virginia in which this association operates, feel that the Bureau of Statistics should take steps to make its fruit-crop reports authentic and better available for the use of producers, so that they can market their crops with a proper understanding of conditions in other producing centers. It is felt that there should be a more uniform system of crop reporting. The various horticultural societies would be glad to cooperate with an expert from the Bureau of Statistics and work out a plan for gathering fruit-crop statistics and disseminating the information.

#### **SAMPLES OF ARTICLES OF INCORPORATION, CONSTITUTION, AND BY-LAWS OF COOPERATIVE MARKETING ASSOCIATIONS.**

##### **ARTICLES OF INCORPORATION OF THE BOULDER COUNTY (COLO.) FRUIT GROWERS' ASSOCIATION.**

Whereas G. M. Anderson, W. L. Scott, E. T. Carr, C. L. Parsons, T. B. Holman, and L. H. Stanton, of the county of Boulder and State of Colorado, have associated themselves together for the purpose of incorporation as a body cor-

porate and politic under the laws of the State of Colorado, they do therefore make, sign, adopt, and acknowledge in duplicate this certificate in writing as the articles of incorporation of said association, to wit:

ARTICLE I.—*Name.*

The corporate name and style of the said corporation shall be The Boulder County Fruit Growers' Association.

ARTICLE II.—*Objects.*

The purpose and objects for which our said association is created are as follows: To promote the industry of fruit raising and to encourage the use of all improved methods and machinery therefor and to raise the standard of the fruit grown in the vicinity of Boulder, Colo.; to establish and develop better markets for said fruit and secure equitable shipping rates and improved shipping facilities for the same; to buy and sell fruit or vegetables and boxes, baskets, or other packages for the transportation of fruit or vegetables, or the lumber, nails, or other materials, or the machinery necessary for the manufacture of the same, or any tools or machinery used in the raising or cultivation of fruit, or any other articles used by people engaged in the industry of fruit raising; to lease, erect, or acquire by purchase or otherwise a suitable building or buildings and all necessary real estate for the carrying on of the business of the association; and in any and every way to promote the general welfare and secure the best interests of the fruit growers of the city of Boulder and vicinity.

ARTICLE III.—*Capital stock.*

The capital stock of the said association shall be five thousand (\$5,000) dollars divided into one thousand (1,000) shares of the par value of five (\$5) dollars per share and such stock shall be nonassessable and shall be issued only as full-paid stock.

The stockholders of the association shall consist of such persons as may take one or more shares of its stock; but no stockholder, either by subscription or by subsequent purchase, shall hold more than fifty (50) shares of stock.

The directors of the said association may purchase, lease, or otherwise acquire land and any and all property necessary for its business and may use any and all of the capital stock of the association to the amount of the value thereof in payment therefor; and may dispose of any or all property so acquired as the best interests of the association may demand under the direction of a majority of the stockholders.

ARTICLE IV.—*Term.*

The term of existence of said association shall be twenty (20) years from and after the filing of these articles of incorporation.

ARTICLE V.—*Directors.*

The affairs of this association shall be governed by a board of directors to consist of seven persons. The names of those who shall constitute such board and manage the affairs of the association for the first year of its existence and thereafter until their successors are chosen and qualified, are G. M. Anderson, W. L. Scott, E. T. Carr, C. L. Parsons, T. B. Holman, L. H. Stanton, and C. E. Moyer.

ARTICLE VI.—*By-laws.*

The stockholders of our said association shall have the power to make such by-laws as they may deem proper for the management of its affairs.

ARTICLE VII.—*Place of business.*

The operations of our said association shall be carried on in the county of Boulder and State of Colorado, and the principal office and place of business shall be in the city of Boulder, county of Boulder, and State of Colorado.

ARTICLE VIII.—*Amendments.*

These articles may be amended and the authorized capital stock may be increased or reduced as provided by the laws of Colorado and the by-laws of this association.

In witness whereof said incorporators have hereunto set their hands and seals this 5th day of January, A. D. 1903.

G. M. ANDERSON.	[SEAL.]
E. T. CARR.	[SEAL.]
L. H. STANTON.	[SEAL.]
W. L. SCOTT.	[SEAL.]
C. L. PARSONS.	[SEAL.]
T. B. HOLMAN.	[SEAL.]

STATE OF COLORADO.

*County of Boulder, ss:*

I, Albert A. Reed, a notary public, in and for said county in the State aforesaid, do hereby certify that G. M. Anderson, W. L. Scott, E. T. Carr, C. L. Parsons, T. B. Holman, and L. H. Stanton, who are personally known to me to be the persons whose names are subscribed to the foregoing certificate of incorporation, appeared before me this day in person and severally acknowledged that they signed, sealed, and delivered the said instrument of writing as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 5th day of January, A. D. 1903.  
My commission expires June 5, 1905.

ALBERT A. REED, *Notary Public.*

**BY-LAWS OF THE BOULDER COUNTY (COLO.) FRUIT GROWERS' ASSOCIATION.**

ARTICLE I.—*Officers.*

The officers of this association shall be a president, vice president, secretary, treasurer, and general manager, who shall be chosen by the directors at their first meeting following the annual meeting of the stockholders in each year. They shall be elected from the board of directors, except the treasurer and general manager, who may or may not be directors. Said officers shall hold their respective offices until their successors are elected and enter upon the duty of their offices. Vacancies among the directors may be filled at any meeting of the board of directors by ballot.

ARTICLE II.—*Duties of president.*

It shall be the duty of the president to preside at all meetings of the stockholders and of the directors; to sign all bonds, deeds, agreements, or other instruments of writing made or entered into by or on behalf of the association; to sign all certificates of stock and all orders for money on the treasurer; and, in general, perform all duties incident to his office.

ARTICLE III.—*Duties of vice president.*

It shall be the duty of the vice president to perform all the duties of the president in case of his absence or inability to act.

ARTICLE IV.—*Duties of secretary.*

It shall be the duty of the secretary to give due notice of all meetings of stockholders and of directors, to prepare and keep proper books of record and account for the business of the association, and such other books as the directors may prescribe; to countersign and register all certificates of stock and other documents requiring the signature of the president, attaching the corporate seal of the association to all instruments requiring seal; and to perform all such other duties as are incident to his office. He shall be custodian of the corporate seal. A suitable compensation, to be determined by the directors, shall be allowed him for his services.

ARTICLE V.—*Duties of treasurer.*

The treasurer shall be the custodian of the funds of association and shall pay them out only on orders signed by the president and countersigned by the secretary. He shall give bond satisfactory to the directors for the faithful performance of his duties.

ARTICLE VI.—*Duties of general manager.*

The general manager shall receive the fruit or vegetables from the growers and market them, according to his judgment, in the best and most expeditious manner possible.

He shall do all the buying and selling of the association, under the direction of the directors.

He shall make payments on account from time to time to the growers for fruit delivered before the final settlement and at the end of the fruit season turn over to the treasurer such profits as may have accumulated.

He shall keep accurate accounts of all business transacted, and all his books shall be open to inspection at any time by the directors, to whom he shall make reports as requested by them. A suitable compensation, to be determined by the directors, shall be allowed him for his services. He shall give bond satisfactory to the directors for the faithful performance of his duties.

ARTICLE VII.—*Directors.*

[As amended Jan. 20, 1906.]

The board of directors shall consist of seven members, always including the president, vice president, and secretary. The three receiving the highest number of votes at the first election under this amendment shall serve three years. The two receiving the next highest number of votes shall serve for two years, and the two receiving the next highest number of votes shall serve for one year. After this year, as their terms of office expire, their successors shall be elected for a full term of three years. They shall exercise a general supervision over all affairs of the association and shall be directly responsible to the stockholders for its proper management. They shall cause the officers to make full reports of the business of the association at the end of each year for submission to the annual meeting of the stockholders, and at such other times as they may deem necessary. All directors must be stockholders and fruit growers.

ARTICLE VIII.—*Directors' meetings.*

SECTION 1. The directors shall meet at such times as they may deem necessary, and a meeting may be called at any time by the president or by any four members of the board by giving due notice thereof. Four of the directors shall constitute a quorum for the transaction of business.

SEC. 2. Each director, except such as shall be otherwise receiving compensation for his services, shall be entitled to the sum of one dollar (\$1) for each meeting of the board of directors which he attends, which amount shall be paid by the manager at the close of each of such meetings and charged to the general expense account: *Provided*, That no director shall receive more than ten dollars (\$10) for any one year for such services.

ARTICLE IX.—*Stockholders' meetings.*

The annual meeting of the stockholders for the hearing of reports and the election of directors and any other business shall be held at the office of the association in Boulder, Colo., on the third Saturday in January of each year. Special meetings may be called by the directors or by one-fifth of the stock issued by sending printed or written notice to each stockholder at least five days before the date of said meeting. Stockholders may be represented by proxies, which must be exhibited for inspection at the meeting. A majority of the stock issued shall constitute a quorum for the transaction of business. Monthly meetings will be held on the third Saturday of each month for consideration of any matters of importance to the association.

ARTICLE X.—*Certificates of shares.*

Subscribers to the capital stock of this association shall be entitled to certificates of their shares, duly signed by the president and countersigned by the secretary. The certificates shall be numbered and registered as they are issued. Transfers of stock shall be made only on the books of the association either in person or by attorney, and the possession of stock shall not be regarded as evidence of ownership of the same unless it appears upon the stock books of the association that said certificate was issued or duly transferred to the holders of same. A fee of twenty-five cents shall be charged for each transfer.

ARTICLE XI.—*Handling of fruit.*

SEC. 1. Stockholders shall not be permitted to ship their fruit to points outside the city of Boulder without permission of the general manager. Growers who are not stockholders may sell their fruit through the association subject to the same shipping rules as the stockholders, but shall not share in the dividends.

SEC. 2. Each grower, whether stockholder or not, when delivering fruit to the association, shall be required to have his or her name plainly stenciled or printed on each crate, box, basket, or other package for the purpose of identification.

SEC. 3. All fruit delivered to the association for sale shall be carefully prepared for market and delivered in as fresh and good condition as possible, and the general manager shall have the right to refuse any fruit offered to him not in a marketable condition.

SEC. 4. All fruit delivered to the association for sale shall be carefully examined by the general manager and classified as to kind and grade of same according to quality and condition.

SEC. 5. All the fruit delivered to the association in any one day shall be treated as an entirety, subject to classification as to kind and grade, irrespective of who raised or delivered the same. Each grower who delivered a portion of said fruit shall be entitled to his or her share of the proceeds of the sale thereof in proportion to the number of crates, boxes, baskets, etc., furnished by each grower and according to the classification of the kind and grade of fruit.

SEC. 6. A certain proportion of each day's sales, not to exceed 10 per cent of the total, shall be withheld from distribution by the general manager for the purpose of paying the expenses of the association and dividends on the capital stock. The proportion to be so withheld shall be determined by the directors at the beginning of each year.

ARTICLE XII.—*Dividends.*

The directors shall declare a dividend at the close of each calendar year on the issued stock of the association, which dividend shall never exceed the actual net earnings and may be slightly less at the discretion of the directors, thereby leaving a small proportion of the net earnings to be added to the surplus in the treasury.

ARTICLE XIII.—*Corporate seal.*

The corporate seal of this association shall be the word "Seal" circumscribed by the name of the association and the word "Colorado."

ARTICLE XIV.—*Amendments.*

The stockholders by a majority vote of the stock issued may at any regular or special meeting amend, alter, or repeal any of these by-laws.

**ARTICLES OF INCORPORATION OF THE MONMOUTH COUNTY (N. J.)  
FARMERS' EXCHANGE.**

This is to certify that we, Holmes V. M. Dennis, Wm. H. Reid, B. D. B. Smock, G. C. McDowell, Jacob L. Pittenger, Peter F. Conover, W. A. Conover, Wm. W. Taylor, Garrett B. Conover, Geo. T. Jones, Morford Taylor, F. McDowell, V. D. Kenney, D. P. Pittenger, C. S. Holmes, R. B. Gordon, Ray Mc-

Dowell, Eugene Ely, D. A. Statesir, D. H. Taylor, H. P. Conover, Richard W. Herbert, John L. Ely, D. V. D. Conover, Chas. E. Conover, Geo. W. Stillwell, Andrew J. Buck, E. Clarence Conover, Geo. Wyckoff, D. H. Jones, Frank C. Pittenger, H. W. Buck, Staats C. Stillwell, J. van McElwaine, all of the county of Monmouth and State of New Jersey, do hereby associate ourselves into a corporation by virtue of the provisions of an act of the Legislature of New Jersey, entitled "An act concerning corporations" (revision of 1896), approved April 21, 1896, and the several supplements thereto for the purposes hereinafter mentioned, and to that end we do by this our certificate set forth:

First. The name which we have assumed to designate such company, and to be used in its business and dealings, is "The Monmouth County Farmers' Exchange."

Second. The location of the principal office in this State is at Freehold, in the county of Monmouth, the name of the agent therein and in charge thereof upon whom process against this corporation may be served is Garrett B. Conover.

Third. The objects for which this corporation is formed are:

(1) To establish and carry on in the United States of America and elsewhere the business of propagating, planting, cultivating, growing, buying, selling, shipping, importing, exporting, and otherwise dealing in fruits, berries, grains, seeds, vegetables, hay, straw, trees, shrubs, bushes, plants, nursery stock, and farm products of any kind and description; the buying and selling etc., of all kinds of milling and dairy products, cattle, sheep, swine, and poultry, farm machinery, implements, tools, horses, wagons, harness, furniture, whips, robes, blankets, Paris green, fertilizers and the component parts thereof, lime, coal, lumber and wood of all kinds, and to act as agent and to make contracts for the buying and selling of wood, lime, coal, lumber, and fertilizers; to buy and sell cement, hardware, paints, oils, etc., of every kind and description; and also to manufacture, buy, sell, and otherwise deal in any apparatus, appliances, materials and appurtenances connected or used therewith; and, generally, to deal in all such materials, articles, or goods as in the opinion of the board of directors can be conveniently and advantageously dealt in by the corporation.

(2) To purchase, acquire, and sell any and all letters, trade-marks, labels, devices, and designs intended to protect, describe, or to be used in connection with such articles.

(3) To act as agent, factor, or commission merchant for the purchase or sale of any or all said articles or productions.

(4) To purchase or otherwise acquire, hold, sell, assign, transfer, mortgage, pledge, or otherwise dispose of shares of the capital stock or other evidences of indebtedness created by any other corporation or corporations, and while the holder of such stock to exercise all the rights and privileges of ownership, including the right to vote thereon to the same extent as a natural person might or could do.

(5) To acquire and undertake the whole of or any part of the business, property, assets, and liabilities of any person, firm, or corporation.

(6) To borrow money and issue bonds or other obligations; to execute guarantees and contracts of any kind; to purchase, hold, lease, sell, assign, mortgage, and convey real and personal property of every description, and to conduct such business not only in the State of New Jersey, but in any or all the States and Territories of the United States and in foreign countries, and to hold, purchase, mortgage, and convey real and personal property as well out of the State as within it.

(7) To guarantee the payment of dividends or interest on any stock, shares, securities, debentures, or obligations issued by or any other contract or obligation of any other company, and to mortgage, charge, or convey, in security of such guarantee, the real and personal property of this corporation.

(8) To establish or promote, or concur in establishing or promoting, any company, and to guarantee or underwrite subscriptions for any stock, shares, or securities of any such company, or to subscribe for the same or any part thereof, to have, possess, and carry on business without restrictions as to place or amount.

(9) To do all or any of the above things in any part of the United States and in foreign countries as principal, agent, contractor, trustee, or otherwise, and by or through trustees, agents, or otherwise, and either alone or in conjunction with others.

(10) In general to carry on any other business which may seem to the corporation capable of being conveniently carried on in connection with the above



or calculated, directly or indirectly, to enhance the value of or render profitable any of the corporation's property or rights.

Fourth. The total authorized capital stock of this corporation is one hundred thousand dollars, divided into twenty thousand shares of the par value of five dollars each. The amount with which said company shall commence business is fourteen hundred and fifty dollars.

Fifth. The duration of this corporation shall be unlimited.

Sixth. The names and place of residence of each of the subscribers of the capital stock and the number of shares subscribed for are as follows:

(Names, addresses, and number of shares here omitted.)

Seventh. The affairs of the corporation are to be conducted by the officers and persons fixed by the by-laws, and such persons are to be chosen at the time and places and in the manner fixed by the by-laws.

We, the undersigned, for the purpose of forming a corporation do make record and file this certificate and do certify that the facts herein stated are true, and we have accordingly herewith set our hands and seals this 3d day of March, A. D. 1908.

(Names and seals here omitted.)

In the presence of—

CHAS. H. BUTCHER.

STATE OF NEW JERSEY,

*County of Monmouth, ss:*

Be it remembered that on this third day of March, A. D. nineteen hundred and eight, before me the subscriber, a master in chancery of New Jersey, personally appeared H. V. M. Dennis, D. A. Statesir, Eugene Ely, R. B. Gordon, Ray McDowell, Benj. B. Smock, G. B. Conover, Morford Taylor, Geo. Wyckoff, F. McDowell, W. A. Conover, D. P. Pettenger, H. P. Conover, C. S. Holmes, Richard W. Herbert, G. C. McDowell, G. T. Jones, E. Clarence Conover, Wm. W. Taylor, Peter F. Conover, Jacob L. Pittenger, John L. Ely, V. D. Kenney, D. H. Taylor, H. W. Buck, A. J. Buck, G. W. Stillwell, D. H. Jones, Frank C. Pittenger, Staats C. Stillwell, J. Van McElwaine, D. V. Conover, Chas. E. Conover, and Wm. H. Reid, who I am satisfied are the persons named in and who executed the foregoing certificate of incorporation, and I having first made known to them the contents thereof, they severally acknowledged that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

CHAS. H. BUTCHER,

*Master in Chancery of New Jersey.*

Endorsed: "Received March 3d, 1908, at 4 o'clock p. m., and recorded in the Monmouth County clerk's office, in book F of incorporations, page 104, etc.

"JOSEPH McDERMOTT, *Clerk.*

"Filed and recorded March 5, 1908.

"S. D. DICKINSON, *Secretary of State.*"

## CONSTITUTION OF THE AROOSTOOK (ME.) POTATO GROWERS' ASSOCIATION.

### ARTICLE I.—*Name.*

SECTION 1. The name of this association shall be the Aroostook Potato Growers' Association, and it shall be incorporated under the laws of the State of Maine.

### ARTICLE II.—*Capital stock.*

SECTION 1. It shall have a capital stock of one hundred thousand dollars (\$100,000), divided into shares of five dollars (\$5.00) each.

SEC. 2. No person shall hold more than five per cent of the capital stock of this association.

### ARTICLE III.—*Object.*

SECTION 1. To establish conditions whereby anyone desiring may buy Aroostook potatoes true to name.

SEC. 2. To develop our markets and find new ones for our products.

SEC. 3. To ascertain the condition of the crops throughout the season and furnish this information to the stockholders.

SEC. 4. To secure pure seed at as low a price as is consistent with the best quality.

SEC. 5. To buy and sell or manufacture all kinds of supplies.

SEC. 6. To buy and sell and consign all kinds of farm produce and to establish uniform grades of the same.

SEC. 7. To arrange for the transportation and handling of all produce in the best possible manner.

SEC. 8. To own or lease and operate storage warehouse and packing houses for produce.

#### ARTICLE IV.—*Officers.*

SECTION 1. The officers of this association shall consist of a board of nine directors, also a president, vice president, secretary, and treasurer, who shall be chosen from among the directors, and an auditor, who may or may not be chosen from the directors.

SEC. 2. The term of office shall in all cases be for one year, unless the office shall be otherwise declared vacant; but the term of any officer shall continue until his successor has been duly elected or appointed as hereinafter provided. One person shall not hold more than two offices if elected thereto.

SEC. 3. Vacancies in any elective office shall be filled by the board of directors until the annual meeting of the stockholders.

#### ARTICLE V.—*Local board.*

SECTION 1. A local board of five shall be elected for each shipping station by the stockholders registered at that shipping station, and at the time of election one of the members of the local board shall be recommended as local manager of that shipping station.

SEC. 2. The local managers shall call a meeting of the stockholders of a shipping station some time in the month of June to elect a local board to represent that shipping point, and if he fails to do so one of the local board may call such meeting.

#### ARTICLE VI.

SECTION 1. The board of directors shall elect or appoint a general manager, general inspector, and local managers and inspectors.

#### ARTICLE VII.—*Salaries.*

SECTION 1. The salaries of the officers and directors shall be set by the stockholders at the annual meeting. The compensation of the employees shall be fixed by the board of directors.

#### ARTICLE VIII.

SECTION 1. No person can be a member of this association who is not a Patron of Husbandry in good standing.

SEC. 2. Each member of this association shall be liable only for the amount of stock which he owns in the corporation.

SEC. 3. All stockholders are expected to sell through the association unless they get five per cent more elsewhere.

#### ARTICLE IX.—*Annual meeting.*

SECTION 1. The annual meeting shall be held at such place as the directors shall decide on the last Tuesday of June each year.

#### ARTICLE X.—*Amendments.*

SECTION 1. This constitution may be amended by a two-thirds vote of the stock represented at any annual meeting.

### CONSTITUTION OF THE MONMOUTH COUNTY (N. J.) FARMERS' EXCHANGE.

#### ARTICLE I.—*Name.*

SECTION 1. This association shall be known as the "Monmouth County Farmers' Exchange," and incorporated under the laws of the State of New Jersey.

ARTICLE II.—*Object.*

SECTION 1. Its object shall be the buying, selling, and handling of produce, the selling and consigning of produce as agent of the producer, the inspection of all produce so sold or consigned, the owning or operating of storage warehouses, packing houses for produce, fertilizer factories, and generally to deal in all such materials, articles, or goods as in the opinion of the board of directors can be conveniently and advantageously dealt in by the corporation.

ARTICLE III.—*Capital stock.*

SECTION 1. The exchange shall have a capital stock of \$100,000.00, divided into 20,000 shares of \$5.00 each.

SEC. 2. Each stockholder shall be entitled to one vote for each share of stock held, but no one shall hold more than 5 per cent of the outstanding capital stock of the exchange.

ARTICLE IV.—*Officers.*

SECTION 1. The officers of the exchange shall consist of a board of directors, composed of not less than 11 nor more than 17 members, who shall be elected by the stockholders at their annual meeting; president, vice president, secretary, treasurer, general manager, general inspector, auditing committee of three, and local agents. There may be also an assistant manager, assistant secretary, assistant treasurer, and assistant general inspector. These and such other help as may be required shall be appointed by the board of directors, except the auditing committee, which shall be appointed by the president.

ARTICLE V.—*Term of office, etc.*

SECTION 1. The term of office in all cases shall be for one year, viz, from January 1st to December 31st, unless the office be otherwise declared vacant, but the tenure of any officer shall continue until his successor has been duly elected or appointed as hereinafter provided.

SEC. 2. One person may hold two offices if elected thereto.

ARTICLE VI.—*Meetings.*

SECTION 1. A regular meeting of the stockholders shall be called annually at such time and place as the president or board of directors may direct. The president may call a special meeting at any time after due notice has been given.

SEC. 2. Regular meetings of the board of directors shall be held quarterly at such time and place as may be designated by the president. He may also call special meetings of said board whenever in his judgment, or that of a majority of the board, it may be deemed necessary.

## ARTICLE VII.

SECTION 1. The board of directors shall have the full management of the active business of the exchange. They shall authorize the method of inspecting produce and the choice of markets to which produce may be shipped. They shall fix the salaries of all officers, inspectors, agents, and employees. They shall have authority to remove any officer or employee for cause and shall fill any vacancy in such offices, as the case may be.

## ARTICLE VIII.

SECTION 1. The auditing committee shall examine the accounts of the treasurer and report to the board of directors at the end of each quarter.

## ARTICLE IX.

SECTION 1. A majority of the directors shall constitute a quorum.

## ARTICLE X.

SECTION 1. All stockholders shall ship through the exchange and shall not be allowed to sell to outside competitors unless they receive not less than 5 per cent more than they would receive from the exchange.

SEC. 2. Any member violating the above article shall be suspended from the rights and privileges of the exchange until reinstated by the board of directors.

ARTICLE XI.—*Amendments.*

SECTION 1. All amendments to the constitution shall be submitted in writing and lie over until the next meeting of the board of directors and shall require a two-thirds vote of all the members present to adopt same. It shall become effective at once and be submitted to the stockholders at their next meeting for adoption or rejection.

CONSTITUTION OF THE EASTERN SHORE OF VIRGINIA PRODUCE EXCHANGE.

ARTICLE 1.—*Name; Object.*

SECTION 1. This association shall be known as the Eastern Shore of Virginia Produce Exchange.

SEC. 2. Its object shall be the buying, selling, and handling of produce; the selling and consigning of produce as agent of the producer; the inspection of all produce so sold or consigned, and the owning or operating of storage warehouses and packing houses for produce.

ARTICLE 2.—*Officers.*

The officers of this exchange shall consist of a president, vice president, secretary, treasurer, general manager, general inspector, assistant secretary, assistant treasurer, assistant general manager, and a board of directors. There shall be, also, local boards, local inspectors, and local agents.

ARTICLE 3.—*Term of office, etc.*

SECTION 1. The term of office, in all cases, shall be for one year, viz, from January 1st to December 31st, unless the office be otherwise declared vacant; but the tenure of any officer shall continue until his successor has been duly elected or appointed as hereinafter provided.

SEC. 2. One person may hold two offices if elected thereto.

ARTICLE 4.—*Duties of officers.*

SECTION 1. The president shall call all meetings of the stockholders and the board of directors and preside over the same. He shall exercise a general supervision of the affairs of the exchange and perform such other duties as may be imposed upon him by the constitution and by-laws.

SEC. 2. In the absence of the president the vice president shall perform the duties of that office.

SEC. 3. The secretary shall keep the minutes of all the proceedings, whether of the meetings of the stockholders, board of directors, or such other records as they may prescribe. He shall also conduct the correspondence of the exchange.

SEC. 4. The treasurer shall receive and be the custodian of all funds properly belonging to the exchange. He shall pay all salaried officers, agents, and employees, and all debts due by the exchange, as directed by the board of directors. It shall be the duty of the treasurer to receive daily from the business manager the reports from the local agents and to preserve the same for future reference, and to require from all commission merchants doing business with said exchange a statement of all business transacted with them through the exchange at such times as he may deem advisable. He shall keep the financial records of the exchange in business order, and his books be at all times open for the inspection of its officers and stockholders. He shall report to the general manager all buyers who, in his judgment, have not met their obligations or to whom he thinks it inadvisable to extend further credit, and then the general manager shall not sell to said derelict buyer or buyers until the same have been satisfactorily adjusted, nor shall he sell to any party against the recommendation of the treasurer. He shall give bond for an amount to be named by the board of directors.

SEC. 5. The general manager shall manage all produce placed in the custody of the exchange, whether for consignment, sale, or storage, and, under the

authority of the board of directors, shall buy, sell, consign, or store any such produce. It shall also be his duty to advise local agents to whom to consign produce placed in the hands of the exchange; to notify local agents every morning the prices at which goods from his station were sold on day previous and to see that such information is disseminated among members of the exchange at the various shipping points; and he shall also transmit daily reports from local agents to the treasurer in accordance with section 4, article 4. He shall at all times endeavor to see that goods are properly inspected, and when information reaches him of any delinquency in inspection on the part of any local inspectors he shall at once, either personally or through the general inspector, see that said delinquency is corrected. Said general manager shall also keep a record of the total number of packages of goods shipped each day from each shipping point in books prepared for that purpose. And he shall report to each meeting of the board of directors each failure on the part of the local agents to report to him or mail to the consignee daily invoice in accordance with section 10, article 4. He is hereby empowered and it shall be his duty, for good cause, to suspend any local agent or inspector until the next meeting of the board of directors. And upon such suspension he shall notify in writing the local agent or inspector so suspended of the grounds of his suspension and require him to appear before the board of directors at their next meeting to show cause why he should not be suspended from office. Upon any such suspension the general manager is further empowered to appoint some one to fill the vacancy created by such suspension until such agent or inspector has been reinstated or his successor duly elected. And, further, he shall perform such other duties as may be imposed upon him by the board of directors.

SEC. 6. The general inspector shall supervise and direct the local inspectors at each shipping point as to the method of inspecting, grading, and packing all produce to be handled by the exchange, and shall see that the standard shall be maintained as near uniform as may be, both as to grade and package, and shall report any delinquency or malfeasance in office on the part of any local inspector directly to the president. He shall further ascertain as far as possible all persons, whether manufacturers or purchasers of packages under the standard size, and see that they are prosecuted for manufacturing, dealing in, purchasing, or using same. Said general inspector shall visit each local point not less than once a month and at such other times and places as he may be directed by the general manager. He shall also report regularly to the board of directors.

SEC. 7. The board of directors shall have the full management of the active business of the exchange. They shall authorize the method of inspecting produce and the choice of markets to which produce may be shipped. They shall fix the salaries of all officers, inspectors, agents, and employees. They shall have authority to remove any officer or employee for cause and shall fill any vacancy in such offices temporarily by appointment until filled by the stockholders or local board, as the case may be.

SEC. 8. The duties of officers of local exchanges shall be as follows: Local boards shall look after the interests of the exchange in their particular neighborhood, use all their influence to induce growers of produce and landowners to take out stock in the exchange, and report to the superior officers of the exchange any defects apparent to them in the management of the business of the exchange.

SEC. 9. Each local agent shall report daily to the general manager all shipments made by his station on that day, the names of parties shipping, the number of packages, and to whom consigned or sold; said reports to be made in such manner as the general manager may prescribe. Local agents shall receive the produce from its members and their tenants and mark same with initials of grower on each package after the same have been inspected and branded and notify the general manager of the number and kind of packages which he has for disposition. The local agent shall, if the general manager direct the produce to be consigned, mail to the consignee an invoice of the number of barrels or packages consigned, together with the names of the persons who have furnished the produce, their respective post-office addresses, and the number of packages each person has in the consignment, and the consignee shall make separate returns to each of such persons after deducting three per cent (3 per cent) for the exchange, which three per cent (3 per cent) the consignee shall send to the treasurer of the exchange, with a full statement of the source from which it arises. Said local agent shall keep an accurate record of all produce received by him, the date on which it was received, the disposition made of same, whether sold or consigned; and if sold, at what

price and when the returns for said goods were received from the secretary and treasurer of the exchange and when paid to the shipper; said records to be kept in a book to be furnished by the general office and shall be open at all times to the shipper for his inspection; and, further, the said local agent shall produce said book for the inspection, examination, and verification by any individual sent out from the general office. Said local agent shall deposit all funds received by him from the exchange in some bank to his credit as agent for said exchange and shall immediately after receiving payment from the general office pay the same over to the party entitled to same and enter the price and date of payment in the book above provided for. No local agent shall be permitted to buy for shipment or sale, and satisfactory proof of said agent's buying for shipment or sale shall be deemed sufficient cause for suspension or removal.

SEC. 10. Local inspectors shall be appointed by the board of directors and shall receive the produce from its members or their tenants, bringing the same to the exchange for disposition, inspect, grade, and brand it according to the directions received from the general office. No local inspector shall be permitted to buy for shipment or sale, and satisfactory proof of said inspector's buying for shipment or sale shall be deemed sufficient cause for suspension or removal.

ARTICLE 5.—*Elections and appointments.*

SECTION 1. The president, vice president, secretary, treasurer, general manager, and general inspector shall be elected annually at a regular meeting of the stockholders and without reference to the shipping point to which they may be attached. The assistant secretary, assistant treasurer, and assistant general manager shall be appointed by the board of directors. Each member of the board of directors shall be selected by the respective local exchange he may be chosen to represent, but said local must be in good standing, its membership shall be twenty (20) or more, and shall represent not less than two hundred and fifty dollars (\$250.00) of the capital stock of the exchange: *Provided, however,* That this section shall not affect existing organizations with a membership of less than twenty (20).

SEC. 2. *As to local agents and local boards.*—Local agents shall be elected by the stockholders attached to the shipping point where they are to serve, and said stockholders shall also have the power to remove said agent for cause and to fill any vacancies so occasioned, but said local agents shall be subject to the approval of the board of directors of the exchange, and said board of directors shall have the power to remove them, fill the vacancy temporarily, and call at once for a new appointment by the local stockholders attached to that shipping point. Every stockholder shall register himself with the secretary of the exchange at his nearest shipping point; if he be not a shipper, then at the point nearest his residence, unless he be a farm owner, in which case he shall register at the shipping point nearest his farm; if he be a nonresident and not an owner of farm land, then he shall be registered at the general office and not be permitted to vote in the local divisions; but if he be a farm owner, then at the point nearest his farm: *Provided, however,* That this section shall not apply to Pungoteague and Craddockville divisions as they at present exist. All stockholders from the various shipping points shall annually elect a local board of five (5) stockholders from among themselves for that shipping point, and when they so elect the local board they shall at the same time designate one member of the local board as a director of the exchange, the board of directors thus being composed of as many directors as there are local boards.

SEC. 3. *New divisions, how organized.*—Whenever twenty (20) or more stockholders, representing not less than two hundred and fifty dollars (\$250.00) of the stock of the exchange, shall desire to organize a new division, they shall first make application to the board of directors for permission to so organize a separate division, and if the said board of directors shall give consent, then the said stockholders shall, as soon thereafter as possible, meet and organize by electing their local board of directors and agent, and designate one of the members of their local board to act as a member of the board of directors. The secretary of said local division shall forthwith notify the general office of the organization of said division, and the name of member designated to act as a member of the board of directors and agent: *Provided, however,* The board of directors shall not give consent to the organization of a new division whenever in its judgment some other organization or organizations will be reduced by

the withdrawal of members who will unite with the new division to less than twenty (20) members, representing at least two hundred and fifty dollars (\$250.00) worth of stock.

ARTICLE 6.—*Meetings.*

SECTION 1. A regular meeting of the stockholders shall be called annually at such time and place as the president or board of directors may direct. The president may call a special meeting at any time after due notice has been given.

SEC. 2. Regular meetings of the board of directors shall be held quarterly at such time and place as may be designated by the president. He may also call special meetings of said board whenever in his judgment, or that of a majority of the board, it may be deemed necessary.

SEC. 3. Local exchanges may fix their own times and places of meeting, except the annual meeting for the election of officers, which shall be at such time as the board of directors shall prescribe, but the representatives of each local chosen to serve as a director must be certified to the secretary of the exchange within five days from the date of all such local meetings.

ARTICLE 7.—*Franchises, etc.*

Each stockholder shall be entitled to one vote for each share of stock held, but no person shall be allowed to hold more than ten per centum of the whole number of outstanding shares.

ARTICLE 8.—*Brand.*

SECTION 1. One or more regular brands shall be adopted by the exchange for the marking of produce handled by it, and a copyright or copyrights obtained therefor.

SEC. 2. All packages for shipment through the exchange, after being inspected and graded, shall be labeled "Eastern Shore of Virginia Produce Exchange," and if No. 1 grade or better shall be further labeled with the "Red Star Brand"; but in no case is the "Red Star Brand" to be used unless the grade is No. 1 or better. The grading, filling, and condition of package shall be considered by the inspector in determining the proper grade, but in no event shall any package receive the "Red Star Brand" unless it be of standard size and well filled. After produce has been delivered to the exchange, inspected, and branded, under no circumstances shall it be withdrawn from the control of the exchange. If any agent shall report to the general office for sale or consignment any produce without its having first been duly inspected and branded with the "Red Star Brand," if entitled thereto, then such act upon the part of said agent shall be deemed sufficient cause for suspension and removal of said agent. No produce shall be received, inspected, branded, or reported to the general office of the exchange for sale or consignment except it be grown or owned by a stockholder or tenant of a stockholder of the exchange in good standing, and the violation of this provision shall be deemed a good and sufficient ground for the suspension and removal of said inspector or agent.

ARTICLE 9.

All stockholders in the exchange shall be compelled to ship through the exchange, but shall be allowed to sell outside at an advance of not less than five per cent (5 per cent) on the price they would receive from the exchange; provided, however, that said goods have not been received, inspected, or branded. Any violation of the foregoing prohibition by a shipper shall deprive him of the rights and privileges of the exchange.

ARTICLE 10.

All amendments or alterations to the constitution and by-laws shall be submitted in writing and lie over until the next meeting of the board of directors and shall require two-thirds ( $\frac{2}{3}$ ) of the members present to adopt same.

RESOLUTION OF THE BOARD OF DIRECTORS, FEBRUARY 2, 1912.

DISTRIBUTION OF PROFITS AMONG SHIPPERS.

That at the close of each fiscal year hereafter, after payment of all necessary expenses and losses incident to the year's operations and other expenditures

authorized by the board of directors, and a dividend at the fixed rate of 10 per cent on the capital stock, one-half of whatever amount remains out of the gross receipts of the exchange from all sources shall be added to the surplus, and that the remaining one-half shall be refunded to the loyal shippers of the exchange in proportion to the value of the various amounts of goods sold f. o. b. loading point respectively contributed by them.

That all persons who are loyal exchange shippers at the close of the shipping season included in the fiscal year in question, whether stockholders, tenants of stockholders, or holders of shipping privileges, shall be entitled to participate in this refund, but that no part of any such refund shall be paid to any person who shall have violated the rule requiring all members to ship exclusively through this organization, except in case such person shall have been restored to good standing and again become a regular exchange shipper before the close of the shipping season, in which event his share shall be determined by considering only shipments made by him after the date of such reinstatement.

#### REFORM OF RULES AS TO "VIOLATORS."

1. That all persons who are at this time under a disability to ship through the exchange by reason of having violated the rule requiring all members to market their produce through it exclusively may regain the full rights of exchange membership by applying to their respective agents and expressing a desire again to become regular exchange shippers, without the necessity of signing any formal pledge or of any further action by the board of directors.

2. That henceforth, as in the past, all members shall be required either to market their produce exclusively through the exchange or else to relinquish all rights of exchange membership; provided, however, that in case any member is offered a price plainly in excess of the market value of his goods for the obvious purpose of inducing him to break off his relationship with the exchange, the general manager shall have authority to direct him to accept such offer without loss of membership rights.

3. That no member who may violate this requirement shall be permitted under any circumstances, to make further shipments through the exchange, or to secure seed potatoes or other supplies from it, or to enjoy any other benefit of exchange membership within a period of twelve months next following such violations save by special actions by the board of directors; but that at the expiration of such period of twelve months any such violator shall be entitled to reinstatement on application to his local agent as provided in section 1 above.

4. That every agent shall be required to give the secretary prompt information in writing of every case of loss of or reinstatement to membership rights under the above provisions, and also to furnish not later than April 1st of each year, and keep constantly up to date thereafter, a complete list of all tenants of shareholders who may profess an intention of becoming or remaining regular exchange shippers from his point.

5. That all resolutions, regulations, or parts thereof which may be inconsistent with this resolution are hereby rescinded.

#### BY-LAWS OF THE ROCKY FORD (COLO.) MELON GROWERS' ASSOCIATION.

ARTICLE 1. The officers of this association shall consist of a president, vice president, secretary, treasurer, and board of five directors.

ART. 2. The election of directors and treasurer shall be at each annual meeting. The treasurer shall hold office for one year or until his successor is elected. The directors shall hold office for three years, except the first term; it being so arranged that two shall be elected for three years, two for two years, and one for one year.

ART. 3. The president, vice president, and secretary shall be elected by the board of directors, and shall be the officers of the board as well as of the association. The board shall reorganize after each annual meeting and shall have the power to fill a vacancy in the board to serve until the next annual meeting. Three consecutive absences of a member from the board meetings shall work a vacancy for that member on the board and his successor may be appointed by the balance of the board.

ART. 4. The president shall be elected by the board of directors, and shall be the president of the board of directors as well as president of the association,



and shall preside at all meetings of the same and shall perform generally such duties as devolve upon presidents of similar organizations.

ART. 5. The vice president shall be elected by the board of directors, and shall in case of the president's inability to act perform all the duties devolving upon the president.

ART. 6. The secretary shall be elected by the directors, and shall be secretary of the board of directors as well as of the association, and shall keep a true, full, and accurate record of all the proceedings of said board and association, in books to be furnished for that purpose, and shall attend to all correspondence of said board and association, and shall collect all moneys and pay the same over to the treasurer of the association.

The secretary shall keep a book, to be called the roll of membership, in which shall be legibly written the articles of incorporation and by-laws, and in which all persons elected to membership shall enroll their names.

The secretary shall keep a book which shall contain a list of all the property of the association, and shall make a report of the same at each annual meeting, and at such other times as the board of directors shall demand.

ART. 7. The treasurer shall be the custodian of the moneys of the association, and shall not pay out the same until proper orders or warrants are drawn on him by the secretary and signed by the president.

The treasurer shall make a full report of his official acts as treasurer at each annual meeting, and such report may be demanded at any time by the board of directors when deemed necessary.

Before entering upon the duties of his office the treasurer shall execute a bond to the association in such sum as shall be satisfactory to the board of directors, subject to be increased or disapproved at any time upon good cause shown.

ART. 8. The board of directors shall meet as often as the best interests of the association may demand, and a majority of the board shall constitute a quorum and at such meetings shall examine and audit all bills.

In case of the absence of any officers of the board at such meetings, officers pro tem, may be selected from members of said board to serve in said office during such meeting.

The directors shall have charge of all the property, effects, and assets of the association, including management and general supervision of its affairs.

The directors shall do their utmost to have all melons reach the market in the best possible condition, and that no melons will be received at the platform unless the same are brought in on springs, and in all ways promote the interests of the association.

Inspectors or field men shall be employed by the board of directors when, in their opinion, the interests of the association demand it.

The duties of the inspector shall be to carefully inspect all melons offered by any member of the association for shipment, and to refuse to receive all articles that are not in good marketable condition as to the quality of the article or package. His official action in the acceptance or nonacceptance of articles shall be reviewed only by the board of directors.

ART. 9. A person growing melons may become a member of this association by enrolling his name with the secretary subject to the approval of the board of directors. He shall declare that he will ship or market his melons through the association; such declaration shall also be required of all old members as well as new; also the payment of fifty cents annual membership fees shall be reserved from the first returns of each member; the declaration of each member to ship or continue with the association shall be made on or before July 1st of each year, at which date the books for membership shall close, and any member failing to so notify the secretary shall cease to be a member and shall forfeit his share of the holdings of the association; also any member leaving the association to market his melons through another agency shall forfeit his rights as a member and any share in the annual distribution.

ART. 10. Each member, when delivering melons to the association for sale or otherwise, shall be required to have his or her number or letter plainly stenciled on each crate, box, basket, barrel, or other means of storage, for delivery, for the purpose of identification.

ART. 11. The annual meeting of the association shall be held on the second Saturday of December in each year at such hour and place as shall be designated by proper notices.

ART. 12. Special meetings of the association shall be called at any time by the president on order of the board of directors or upon written request of ten members: *Provided*, That upon call of special or annual meetings of the

association proper notice shall be given or mailed by the secretary to each member in good standing. Said notices to designate the time, place, and purpose of said meeting, not to conflict with any other articles of these by-laws.

ART. 13. Any absent member may vote by proxy: such proxy must be in writing, and the holder must be a member of the association: *Provided*, That no more than five proxies can be held by one member.

ARTICLE 14. All business of the association at any regular meeting, special, or annual shall be conducted according to Roberts' Rules of Order, when the same is not in conflict with the charter or by-laws.

ART. 15. These by-laws may be altered, amended, or repealed and others adopted from time to time by a vote of two-thirds of the members of the association present at any regular meeting or any special meeting called for that purpose.

ART. 16. Any amendment to the by-laws must be presented in writing at a regular or special meeting of the association, and, when so presented, shall be referred to the committee on by-laws for a speedy report on same.

ART. 17. No such proposed amendment shall be acted upon until the first regular meeting after its introduction or special meeting thereafter called for that particular purpose.

ART. 18. The directors shall withhold and deduct from each day's sales, for the purpose of meeting the expenses of the association, an amount of money not to exceed five per cent of the net proceeds.

ART. 19. Any balance of expense money on hand after the necessary expenses are paid, at the end of the season, or as soon thereafter as possible, shall be divided among the members in proportion to the number of crates shipped for that season, excepting the sum of two hundred and fifty dollars to be reserved to defray necessary expenses until the next shipping season.

ART. 20. The remuneration of the officers and members for regular and special services shall be fixed by a vote of the members at the annual meeting, and such rate shall stand until increased or decreased by a vote at a subsequent annual meeting: *Provided*, If not so fixed at the annual meeting then the board of directors shall have power to fix the same.

## BY-LAWS OF THE AROOSTOOK (ME.) POTATO GROWERS' ASSOCIATION.

### ARTICLE I.—*Main office.*

SECTION 1. The main office of this association shall be in the town the secretary resides in.

### ARTICLE II.—*Voting.*

SECTION 1. Each member shall be entitled to one vote for each share of stock held, at both the annual stockholders' meeting and the meetings to elect the local board. Every stockholder may be represented by proxy lawfully created.

### ARTICLE III.—*President.*

SECTION 1. It shall be the duty of the president to preside at all regular meetings of the stockholders and directors, and he shall call special meetings of either the stockholders or directors when requested to do so by at least three directors or five per cent of the stock.

SEC. 2. He shall be an *ex officio* member of all committees.

SEC. 3. He shall sign all stock certificates and notes; see that all resolutions of the stockholders and directors are carried out, and have a general oversight of the affairs of the association.

### ARTICLE IV.—*Vice president.*

SECTION 1. The vice president shall perform the duties of the president in his absence or incapacity.

### ARTICLE V.—*Secretary.*

SECTION 1. The secretary shall keep the minutes of the board of directors, and also the minutes of the meetings of the stockholders; he shall attend to the giving and serving of all notices of the association; he shall sign all certifi-

cates of stock signed by the president and shall affix the seal of the corporation to all certificates when signed by the president and secretary; he shall have charge of the certificate book and all books and papers that the board shall direct; he shall attend to such duties as may be assigned to him and perform all the details incidental to his office. He shall also keep a stock book containing the names, alphabetically arranged, of all persons who are stockholders of the corporation, showing their places of residence, the number of shares of stock held by them respectively, the time when they became the owners thereof, and the amount paid thereon.

#### ARTICLE VI.—*Treasurer.*

SECTION 1. The treasurer shall receive and be the custodian of all funds and securities properly belonging to the association. He shall deposit the same in the name of the association in such bank or banks as the directors may select. He shall pay all salaried officers, agents, and employes, and all debts due by the association as directed by the board of directors. He shall sign all notes which shall be countersigned by the president. He shall countersign all checks, drafts, and orders for the payment of money, drawn and signed by the manager. He shall keep the financial records of the association in business order, and his books shall be at all proper times open to its officers and stockholders. He shall give such bonds as the directors may require.

#### ARTICLE VII.—*Auditor.*

SECTION 1. The auditor shall go over the accounts of the officers and employes at least twice a year and report to the directors at the annual meeting and the first directors' meeting after the first of January, and at such other times as the directors may direct.

#### ARTICLE VIII.—*Directors.*

SECTION 1. The board of directors shall have the full management of the active business of the association. They shall authorize the method of inspecting produce, and the choice of markets to which produce may be shipped. They shall fix the salaries of all inspectors, agents, and employees. They shall have authority to remove any employee for cause and shall fill such vacancy.

#### ARTICLE IX.—*General manager.*

SECTION 1. The general manager shall manage all property placed in the custody of the association, whether for consignment, sale, or storage, and under the authority of the board of directors; shall buy, sell, consign, or store any such produce. It shall also be his duty to advise local managers to whom to consign produce placed in the hands of the association; to notify local managers every day, or as often as conditions require, the condition of the market and the prices at which goods from his station were sold on the day previous and to see that such information is disseminated among the members of the association at the various shipping points, and he shall also transmit daily reports from local managers to the treasurer. He shall also see that goods are properly inspected and graded. The said general manager shall sign and execute all contracts in the name of the association when authorized to do so by the board of directors. He shall draw all checks, drafts, and orders for the payment of money, which shall be countersigned by the treasurer. He shall endeavor to carry out in the best possible manner the object of this association as outlined in article 3 of the constitution. Said general manager shall also keep a record of the total number of packages of goods shipped each day from each shipping point in books prepared for that purpose, and he shall report to each meeting of the board of directors each failure on the part of the local managers to report to him or to mail to the consignee daily invoice. He is hereby empowered and it shall be his duty for good cause to suspend any local manager until the next meeting of the board of directors, and upon such suspension he shall notify in writing the local manager so suspended of the grounds of his suspension and require him to appear before the board of directors at their next meeting to show why he should not be suspended from office. The general manager shall appoint a local manager to fill the place temporarily, and further he shall per-

form such other duties as may be imposed upon him by the board of directors. The general manager shall be required to give bonds in such sums as the directors may fix.

ARTICLE X.—*Amendments.*

SECTION 1. These by-laws may be amended by a two-thirds vote of the board of directors.

BY-LAWS OF THE MONMOUTH COUNTY (N. J.) FARMERS' EXCHANGE.

1.—*Duties of officers.*

SECTION 1. The president shall call all meetings of the stockholders and of the board of directors and preside over the same. He shall exercise a general supervision of the affairs of the exchange, sign all certificates of stock and notes, perform such other duties as may be imposed upon him by the constitution and by-laws, and shall be an ex-officio member of all committees.

SEC. 2. The vice president shall perform the duties of the president in his absence.

SEC. 3. The secretary shall keep the minutes of all the meetings and all the proceedings, whether of the meetings of the stockholders, board of directors, or such other records as they may prescribe. He shall also conduct the correspondence of the exchange that may be assigned to him.

SEC. 4. The treasurer shall receive and be the custodian of all funds properly belonging to the exchange. He shall pay all salaried officers, agents, and employees, and all debts due by the exchange, as directed by the board of directors. It shall be the duty of the treasurer to receive daily from the general manager the report from the local agents, and to preserve the same for future reference, and to require from all commission merchants doing business with the said exchange a statement of all business transacted with them through the exchange at such times as he may deem advisable. He shall keep the financial records of the exchange in business order and his books be at all times open for the inspection of its officers and stockholders. He shall report to the general manager all buyers who, in his judgment, have not met their obligations or to whom he thinks it inadvisable to extend further credit, and then the general manager shall not sell to said derelict buyer or buyers until the same have been satisfactorily adjusted nor shall he sell to any party against the recommendation of the treasurer. He shall give such bonds as the board of directors may require.

SEC. 5. The general manager shall manage all produce in the custody of the exchange, whether for consignment, sale, or storage, and under the authority of the board of directors shall buy, sell, consign, or store any such produce. It shall be his duty to advise local agents to whom to consign produce placed in the hands of the exchange, to notify local agents every morning the prices at which goods from his station were sold on the day previous, and to see that such information is disseminated among members of the exchange at the various shipping points, and he shall also transmit daily reports from local agents to the treasurer in accordance with section 4.

He shall at all times endeavor to see that goods are properly inspected, and when information reaches him of any delinquency in inspection on the part of any local agent he shall at once, either personally or through the general inspector, see that said delinquency is corrected. Said manager shall keep a record of the total number of packages of goods shipped each day from each shipping point in books prepared for that purpose. And he shall report to each meeting of the board of directors each failure on the part of the local agent to report to him, or mail to the consignee daily invoice in accordance with section 7. He is hereby empowered, and it shall be his duty for good cause, to suspend any local agent or inspector until the next meeting of the board of directors. And upon such suspension he shall notify, in writing, the local agent or inspector so suspended of the grounds of his suspension and require him to appear before the board of directors at their next meeting to show cause why he should not be removed from office. Upon any such suspension the general manager is further empowered to appoint some one to fill the vacancy created by such suspension until such agent or inspector has been reinstated or his successor duly elected. And, further, he shall perform such other duties as may be imposed upon him by the board of directors.

SEC. 6. The general inspector shall supervise and direct the local agent at each shipping point as to the method of inspecting, grading, and packing all produce to be handled by the exchange; and shall see that the standard shall be maintained as near uniform as may be, both as to grade and package; and shall report any delinquency or malfeasance in office on the part of any local agent directly to the president and general manager. He shall further ascertain, as far as possible, all persons, whether manufacturers or purchasers of packages under the standard size, and see that they are prosecuted for manufacturing, dealing in, purchasing, or using same. Said general inspector shall visit each local point not less than once a month and at such times and places as he may be directed by the general manager. He shall also report regularly to the board of directors and perform such other duties as may be required by said board.

SEC. 7. Each local agent shall report daily to the general manager all shipments made by his station on that day, the names of parties shipping, the number of packages and to whom consigned or sold, said reports to be made in such manner as the general manager may prescribe. Local agents shall receive the produce from its members and mark same with initials of grower on each package after the same have been inspected and branded, and notify the general manager of the number and kind of packages which he has for disposition. The local agent shall, if the general manager direct the produce to be consigned, mail to the consignee an invoice of the number of barrels or packages consigned, together with the names of the persons who have furnished the produce, their respective post-office address, and the number of packages each person has in the consignment, and the consignee shall make separate returns to each of such persons after deducting the customary commission of 10 per cent for selling. From this 10 per cent the consignee shall allow the exchange 3 per cent, which he shall send to the treasurer of the exchange with a full statement of the source from which it arises. Said local agent shall keep an accurate record of all produce received by him, the date on which it was received by him, the disposition made of same, whether sold or consigned. Said records shall be kept in such manner as the general manager may require, and such record shall be open at all times to inspection by the shipper, or examination and verification by any individual sent out from the general office. No local agent shall be permitted to buy on his own account for shipment or sale, and satisfactory proof of said agent's buying for shipment or sale shall be deemed sufficient cause for suspension or removal.

## II.—*Brand.*

SECTION 1. One or more regular brands shall be adopted by the exchange for the marking of produce handled by it.

SEC. 2. All packages for shipment through the exchange, after being inspected and graded, shall be labeled "Monmouth County Farmers' Exchange," and if No. 1 grade or better shall be further labeled with the Triangle brand, but in no case is the Triangle brand to be used unless grade is No. 1 or better. The grading, filling, and condition of packages shall be considered by the inspector in determining the proper grade, but in no event shall any package receive the Triangle brand unless it be of standard size and well filled. After produce has been delivered to the exchange, inspected, and branded, under no circumstances shall it be withdrawn from the control of the exchange. If an agent shall report to the general office, for sale or consignment, any produce without its having first been duly inspected and branded with the Triangle brand, if entitled thereto, then such act upon the part of said agent shall be deemed sufficient cause for suspension and removal of said agent. No produce shall be received, inspected, branded, or reported to the general office of the exchange for sale or consignment except it be grown or owned by a stockholder of the exchange in good standing, unless authorized by the general manager, and the violation of this provision shall be good and sufficient ground for the suspension and removal of said inspector or agent.

## III.—*Amendments.*

SECTION 1. These by-laws may be amended by a two-thirds vote of the board of directors.

## BY-LAWS OF THE LONG ISLAND (N. Y.) CAULIFLOWER ASSOCIATION.

### ARTICLE I.—*Meetings of stockholders.*

SECTION 1. The annual meeting of the stockholders of this association shall be held at the courthouse in the village of Riverhead, on the second Saturday of February of each and every year, at 2.30 o'clock p. m., for the election of directors and such other business as may properly come before the said meeting. Notice of time, place, and object of such meeting shall be given by publication thereof at least once in each week for two successive weeks immediately preceding such meeting, in the manner required by the stock corporation law, section 20, and by mailing, at least five days previous to such meeting, postage prepaid, a copy of such notice addressed to each stockholder at his residence or place of business, as the same shall appear on the books of the corporation.

SEC. 2. Special meetings of stockholders other than those regulated by statute may be called at any time by a majority of the directors. It shall also be the duty of the president to call such meetings whenever requested in writing so to do by stockholders owning one-tenth of shares issued of the capital stock. A notice of every special meeting, stating the time, place, and object thereof, shall be given by mailing, postage prepaid, at least five days before such meeting, a copy of such notice addressed to each stockholder at his post-office address as the same appears on the books of the corporation.

SEC. 3. At all meetings of stockholders there shall be present, either in person or by proxy, stockholders owning one-twentieth of the capital stock of the corporation in order to constitute a quorum, except at special elections of directors, pursuant to section 25 of the general corporation law.

SEC. 4. At all annual meetings of stockholders the right of any stockholders to vote shall be governed and determined as prescribed in the general corporation law, sections 20, 21, and 22.

SEC. 5. If for any reason the annual meeting of stockholders shall not be held as hereinbefore provided, such annual meeting shall be called and conducted as prescribed in the general corporation law, sections 24, 25, and 26.

SEC. 6. At all meetings of stockholders only such persons shall be entitled to vote in person and by proxy who appear as stockholders upon the transfer books of the corporation for 10 days immediately preceding such meetings.

SEC. 7. At the annual meetings of stockholders the following shall be the order of business, viz:

1. Calling the roll.
2. Proof of proper notice of meeting.
3. Report of president.
4. Report of treasurer.
5. Report of secretary.
6. Report of manager.
7. Reports of committees.
8. Election of directors and inspectors of election.
9. Miscellaneous business.

SEC. 8. At all meetings of stockholders all questions except the question of amendment to the by-laws and the election of directors and inspectors of election, and all such other questions the manner of deciding which is specially regulated by statute, shall be determined by a majority vote of the stockholders present in person or by proxy; provided, however, that any qualified voter may demand a stock vote, and in that case such stock vote shall immediately be taken, and each stockholder present, in person or by proxy, shall be entitled to one vote for each share of stock owned by him. All voting shall be viva voce, except that a stock vote shall be by ballot, each of which shall state the name of the stockholder voting and the number of shares owned by him, and in addition if such ballot be cast by proxy it shall also state the name of such proxy.

SEC. 9. At special meetings of stockholders the provisions of sections 20, 21, 22, 25, and 26 of the general corporation law shall apply to all casting of all votes.

### ARTICLE II.—*Directors.*

SECTION 1. The directors of this corporation shall be elected by ballot, for the term of one year, at the annual meeting of stockholders, except as hereinafter otherwise provided for filling vacancies. The directors shall be chosen by a

plurality of the votes of the stockholders, voting either in person or by proxy, at such annual election as provided by section 20 of the stock corporation law.

SEC. 2. The directors shall be chosen from different sections so that stockholders tributary to any railroad station, who are owners of 50 or more shares of stock, shall have one representative on the board of directors.

SEC. 3. Vacancies in the board of directors, occurring during the year, shall be filled for the unexpired term by a majority vote of the remaining directors at any special meeting called for that purpose or any regular meeting of the board.

SEC. 4. In case the entire board of directors shall die or resign, any stockholder may call a special meeting in the same manner that the president may call such meetings, and directors for the unexpired term may be elected at such special meeting in the manner provided for their election at annual meetings.

SEC. 5. The board of directors may adopt such rules and regulations for the conduct of their meetings and management of the affairs of the corporation as they may deem proper, not inconsistent with the laws of the State of New York or these by-laws.

SEC. 6. The directors shall meet for organization within 10 days after their election upon the call and at a place designated by the retiring president, and whenever called together by the president upon due notice given to each director. On the written request of any three directors the secretary shall call a special meeting of the board.

SEC. 7. All committees shall be appointed by the board of directors.

SEC. 8. The directors shall be paid. For every and each meeting of the board that a director attends he shall be entitled to \$2.00 and a mileage of three cents a mile for each mile that he travels to attend a meeting of the board.

#### ARTICLE III.—*Officers.*

SECTION 1. The board of directors, at the first meeting of the board after the annual meeting, shall choose one of their number by a majority vote to be president, and shall also choose a vice president, secretary, and treasurer. Each of such officers shall serve for the term of one year, or until the next annual election.

SEC. 2. The president shall preside at all meetings of the board of directors, and shall act as temporary chairman at and call to order all meetings of the stockholders. He shall sign certificates or stock and all notes, and perform all the duties incidental to his office.

SEC. 3. The vice president shall in the absence or incapacity of the president perform the duties of that officer.

SEC. 4. The treasurer shall have the care and custody of all the funds and securities of the corporation; he shall deposit the same in the name of the corporation in such bank or banks or trust companies as the directors may elect; he shall sign all notes, which shall be countersigned by the president; he shall countersign all checks, drafts, and orders for the payment of money drawn and signed by the manager; he shall at all reasonable times exhibit his books and accounts to any director or stockholder of the association upon application during business hours; he shall give such bonds for the faithful performance of his duties as the board of directors may determine.

SEC. 5. The secretary shall keep the minutes of the board of directors and also the minutes of the meetings of the stockholders; he shall attend to the giving and serving of all notices of the association; he shall sign all certificates of stock signed by the president and shall affix the seal of the corporation to all certificates when signed by the president and secretary; he shall have charge of the certificate book and such other books and papers as the board may direct; he shall attend to such correspondence as may be assigned to him; and perform all the duties incidental to his office. He shall also keep a stock book, containing the names, alphabetically arranged, of all persons who are stockholders of the corporation, showing their places of residence, the number of shares of stock held by them, respectively, the time when they, respectively, became the owners thereof, and the amount paid thereon, and such book shall be open for inspection as prescribed by section 29 of the stock-corporation law.

ARTICLE IV.—*Management.*

SECTION 1. The board of directors shall choose a general manager for a term of one year.

SEC. 2. The general manager shall sign and execute all contracts in the name of the association when authorized so to do by the board of directors; he shall draw all checks, drafts, and orders for the payment of money, which shall be countersigned by the treasurer; he shall deposit all the funds in the name of the corporation in such bank, banks, or trust company as the directors may elect; he shall appoint and discharge agents and employes, subject to the approval of the board of directors. He shall endeavor to enter into contracts with the railroads for the transportation of cauliflower; to enter into contracts for the cartage of cauliflower from the railroad terminus to the market; to enter into contracts for the sale of cauliflower by sales agents or commission houses in such manner and in such markets as may be found desirable; he shall endeavor to attain security for payment, fair and honest returns, and the best distribution of the cauliflower crop. He shall keep his office open during the shipping season to the stockholders between the hours of 10 to 12 and 6 to 8; he shall at such times furnish the stockholders with all available information; he shall employ a man at each station where there are stockholders representing 50 or more shares of capital stock of the corporation; he shall keep a record compiled from reports of the number of barrels or packages shipped from each station consigned to commission merchants or to sales agent or agents with whom he has contracts; he shall be in daily communication with his markets; he shall divert shipments from one market to another as occasion may require, but he shall not discriminate in favor of any particular locality in directing shipments; he shall not market for any stockholder but one acre of cauliflower for each share owned by the stockholder except upon the payment for a shipping privilege; he shall at all reasonable times exhibit his books and accounts to any director of the association upon application at his office during business hours; he shall have the general management of the affairs of the corporation and perform all duties incidental to his office; he shall give such bonds for the faithful performance of his duties as the board of directors may determine.

ARTICLE V.—*Capital stock.*

SECTION 1. Subscriptions to the capital stock must be paid to the treasurer at such time or times and in such instalments as the board of directors may by resolution require. Any failure to pay an instalment when required to be paid by the board of directors shall work a forfeiture of such shares of stock in arrears, pursuant to section 43 of the stock corporation law.

SEC. 2. Certificates of stock shall be numbered and registered in the order they are issued, and shall be signed by the president or vice president and by the secretary or treasurer, and the seal of the corporation shall be affixed thereto. All certificates shall be bound in a book and shall be issued in consecutive order therefrom, and in the margin thereof shall be entered the name of the person owning the shares therein represented, the number of shares, and the date thereof. All certificates exchanged or returned to the corporation shall be marked canceled, with the date of cancellation, by the secretary, and shall be immediately pasted in the certificate book opposite the memorandum of its issue.

SEC. 3. A stockholder shall offer his shares of stock to the board of directors at market value before making any transfer of his shares of stock.

SEC. 4. Transfers of shares shall only be made upon the books of the corporation when the stockholder is not indebted to the corporation.

SEC. 5. Transfers of shares shall only be made upon the books of the corporation by the holder in person or by the power of attorney, duly executed and acknowledged and filed with the secretary of the corporation, and on the surrender of the certificate or certificates of such shares.

ARTICLE VI.—*Dividends.*

SECTION 1. Dividends shall be declared and paid out of the surplus profits of the corporation as often and at such times as the board of directors may determine, and in accordance with section 23 of the stock corporation law.



ARTICLE VII.—*Inspectors.*

SECTION 1. Two inspectors of election shall be elected at each annual meeting of stockholders to serve one year, and if any inspector shall refuse to serve or shall not be present the meeting may appoint an inspector in his place.

ARTICLE VIII.—*Seal.*

SECTION 1. The seal of the corporation shall be in the form of a circle and shall bear the name of the corporation and the year of its incorporation.

ARTICLE IX.—*Amendments.*

SECTION 1. These by-laws may be amended at any stockholders' meeting by a vote of the stockholders owning a majority of the stock, represented either in person or by proxy, provided the proposed amendment is inserted in the notice of such meeting.

## HOW TO VOTE.

Under the regulations adopted by our association for the government of voting at stockholders' meetings, a stockholder may cast one vote for each share of stock held by him for each of the ten names proposed as members of the board of directors.

## DEMAND AT TRADE CENTERS.

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### RESULTS OF COMPILATION OF TRADE MOVEMENT.

#### SCOPE OF DATA.

The demand at trade centers for a given commodity may be roughly measured by the difference between the receipts and shipments of that commodity at those places. Receipts and shipments of various farm products are available for a number of the leading markets. Grain, cotton, and live stock are included more generally than other commodities in these statistics of receipts and shipments, but even these three classes are not reported completely. Wheat, for instance, appears in the receipts and shipments of the principal interior markets, but is represented only in receipts and exports at the four chief North Atlantic ports and only in shipments by water at the three leading ports of the Pacific Northwest. Similar defects are present in the statistics of the other grain and also of cotton and live stock. Of the other agricultural commodities, eggs are fairly well represented in reports for various markets. Apples and potatoes are included in the statistics of trade movements at several cities, but returns for some big markets are lacking. Various other fruits and vegetables occur in scattering reports.

The units of quantity for some commodities are too indefinite for satisfactory use. The word "package," referring to units of various sizes, is used as a measure of some commodities, and in such instances a comparison between two markets, or even between two months in the same market, is of doubtful value. It is believed, however, that this defect might easily be remedied by the persons who compile the original data.

#### SOURCES OF INFORMATION.

The statistics now available, which show receipts and shipments at various markets, are regularly compiled by boards of trade and similar commercial organizations. Each organization reports for its own market and secures its data from the local representatives of transportation lines. Lists of products for which receipts and shipments are thus reported are different for different cities. For some cities the list is quite long, including not only staple commodities such as grain, hay, and live stock, but also a great variety of fruits, vegetables, and other produce, while for other markets only some of the staple products are given.

In addition to the local returns for each large market, as compiled by its commercial organization, staple products are often reported for a number of minor markets or trade centers which may or may not have local authorities reporting the trade movements there. This is especially true of cotton, for which trade movements at a con-

siderable number of points are reported to various cotton exchanges throughout the United States. A third source of information as to trade movements is the office records and circulars of cooperative and other marketing concerns. This last source, owing to the difficulty and the time required for a satisfactory compilation, was not drawn upon for any of the data presented in the accompanying tables.

#### RELATIVE IMPORTANCE OF MARKETS.

The list of cities under each commodity shown in Table 1 is not complete, since statistics of receipts and shipments of a given product are not available for every important market; but all the cities for which comparable data have been found for a farm product are represented in the table. Attention is invited especially to the lists of cities under barley and wheat, in which Portland, Oreg., and Tacoma, Wash., are not represented. Each of these cities handles millions of bushels a year of both barley and wheat. Similar unavoidable omissions occur in other products. The table, however, is valuable for two reasons—first, it shows the relative completeness of available data for receipts of farm products into large trade centers, and, second, it shows the relative importance of those markets for which returns are now available.

#### MONTHLY TRADE MOVEMENTS.

The receipts and shipments of each farm product for which data have been secured for the 12 months ending June 30, 1912, are shown in Table 2. This table, like Table 1, shows what commodities and what markets are represented in the published statistics of receipts and shipments of farm products, and it also serves as a basis of comparing the relative importance of one month's receipts or shipments as compared with another month's receipts or shipments for a given product at a given city.

The bulk of the marketings of a crop was made generally within a comparatively short season. This condition is illustrated in Table 2 by the monthly receipts expressed as percentages of the year's totals. Some products, owing to their perishable nature, must be marketed soon after harvest, while others may be kept longer. Of the total year's receipts of apples at the five trade centers mentioned in the following table more than one-half reached those cities in October and November, while the heavy marketings of corn covered a longer period. About 40 per cent of the year's supply at the 23 centers mentioned was received within the four months beginning October 1. The various animals and animal products have their respective seasons of heavy and light marketings, but the contrast between the months of large and those of small receipts is not so marked as in the case of crops. Animal products are made ready for the market from time to time throughout the year, while for most crops the harvest occurs but once a year. The percentages representing relative monthly receipts refer to receipts from all sources, including reshipments from other trade centers as well as consignments direct from regions of production.

The statistics of receipts and shipments of farm products at trade centers, it is true, are by no means complete, but, on the other hand, the mass of valuable data now available is a long step toward the desired end.

TABLE 1.

*Cities in order of importance as trade centers for specified commodities, year ending June 30, 1912.*

[Owing to lack of complete returns some markets are necessarily omitted from the lists below.]

## APPLES.

City.	Receipts in order of amount.	City.	Receipts in order of amount.
	<i>Barrels.</i>		<i>Barrels.</i>
Boston, Mass.....	785,663	Louisville, Ky.....	157,101
Cincinnati, Ohio.....	309,158	San Francisco, Cal.....	1 111,601
St. Louis, Mo.....	295,996		

## BARLEY.

	<i>Bushels.</i>		<i>Bushels.</i>
Chicago, Ill.....	21,044,200	Louisville, Ky.....	485,825
Minneapolis, Minn.....	19,201,590	Cincinnati, Ohio.....	469,830
Milwaukee, Wis.....	12,733,176	Detroit, Mich.....	380,731
San Francisco, Cal.....	8,932,957	Kansas City, Mo.-Kans.....	238,000
Duluth, Minn.....	6,012,666	Cleveland, Ohio.....	112,237
New York, N. Y.....	4,721,616	Boston, Mass.....	62,166
Omaha, Nebr.....	3,687,600	Indianapolis, Ind.....	16,000
Peoria, Ill.....	2,176,812	Baltimore, Md.....	12,621
St. Louis, Mo.....	1,597,391		

## BROOM CORN.

	<i>Pounds.</i>		<i>Pounds.</i>
Chicago, Ill.....	10,671,800	San Francisco, Cal.....	<sup>2</sup> 1,000,000
Indianapolis, Ind.....	2,805,000	Peoria, Ill.....	255,006

## CALVES.

	<i>Number.</i>		<i>Number.</i>
Chicago, Ill.....	553,196	Milwaukee, Wis.....	110,403
New York, N. Y.....	403,005	Cincinnati, Ohio.....	73,708
Kansas City, Mo.-Kans.....	221,681	St. Joseph, Mo.....	46,410
Fort Worth, Tex.....	197,651	Sioux City, Iowa.....	34,936
Philadelphia, Pa.....	127,056	Baltimore, Md.....	34,384
Indianapolis, Ind.....	126,229	Louisville, Ky.....	34,267
St. Paul, Minn.....	123,490	Denver, Colo.....	26,727
Boston, Mass.....	112,074	Portland, Oreg.....	5,917

## CATTLE.

	<i>Number.</i>		<i>Number.</i>
Chicago, Ill.....	2,849,094	Indianapolis, Ind.....	295,368
Kansas City, Mo.-Kans.....	1,945,260	Denver, Colo.....	287,230
St. Louis, Mo.....	1,137,553	Baltimore, Md.....	240,994
Omaha, Nebr.....	1,100,993	Philadelphia, Pa.....	205,358
Fort Worth, Tex.....	768,225	Wichita, Kans.....	194,237
New York, N. Y.....	722,644	Louisville, Ky.....	136,441
St. Joseph, Mo.....	453,292	Milwaukee, Wis.....	117,067
Sioux City, Iowa.....	444,479	Cleveland, Ohio.....	88,755
St. Paul, Minn.....	408,878	Portland, Oreg.....	82,937
Cincinnati, Ohio.....	327,457	Peoria, Ill.....	38,147
Boston, Mass.....	295,674		

<sup>1</sup> Boxes reduced to barrels at the rate of 3 boxes to 1 barrel.

<sup>2</sup> Bundles reduced to pounds at the rate of 240 pounds to 1 bundle.

Cities in order of importance as trade centers for specified commodities, year ending June 30, 1912—Continued.

## CORN.

City.	Receipts in order of amount.	City.	Receipts in order of amount.
	<i>Bushels.</i>		<i>Bushels.</i>
Chicago, Ill.	106,678,500	New Orleans, La.	4,834,120
St. Louis, Mo.	26,704,685	Cleveland, Ohio.	4,181,385
Omaha, Nebr.	22,390,800	Toledo, Ohio.	4,126,700
Kansas City, Mo.-Kans.	22,182,550	Little Rock, Ark.	3,823,000
Peoria, Ill.	17,939,966	Boston, Mass.	3,635,989
Baltimore, Md.	14,133,788	Detroit, Mich.	3,235,334
Louisville, Ky.	11,612,719	Philadelphia, Pa.	2,769,979
Indianapolis, Ind.	11,566,300	Wichita, Kans.	1,767,520
New York, N. Y.	10,368,198	Newport News, Va.	498,995
Cincinnati, Ohio.	9,365,104	Duluth, Minn.	241,096
Milwaukee, Wis.	9,305,620	San Francisco, Cal.	178,154
Minneapolis, Minn.	5,838,320		

## COTTON.

	<i>Bales.</i>		<i>Bales.</i>
Galveston, Tex.	3,704,710	Little Rock, Ark.	212,153
Houston, Tex.	3,262,039	Montgomery, Ala.	197,535
Savannah, Ga.	2,404,223	Paris, Tex.	169,855
New Orleans, La.	1,666,379	Shreveport, La.	141,464
Memphis, Tenn.	961,552	Baltimore, Md.	123,868
Norfolk, Va.	766,399	Dallas, Tex.	98,703
St. Louis, Mo.	629,018	Greenwood, Miss.	92,791
Texas City, Tex.	607,201	Columbus, Ga.	84,690
Augusta, Ga.	548,919	Helena, Ark.	70,583
Wilmington, N. C.	537,015	Boston, Mass.	62,975
Brunswick, Ga.	430,733	Jacksonville, Fla.	51,276
Charleston, S. C.	414,459	Greenville, Miss.	44,640
Mobile, Ala.	376,381	Louisville, Ky.	10,903
Atlanta, Ga.	277,671	New York, N. Y.	17,222
Cincinnati, Ohio.	271,660	Philadelphia, Pa.	2,402
Port Arthur, Tex.	256,169	Indianapolis, Ind.	1,132
Pensacola, Fla.	215,191		

## EGGS.

	<i>Cases.</i>		<i>Cases.</i>
New York, N. Y.	5,058,639	San Francisco, Cal.	<sup>2</sup> 640,596
Chicago, Ill.	4,531,870	Cincinnati, Ohio.	629,401
Boston, Mass.	1,653,917	Indianapolis, Ind.	262,861
St. Louis, Mo.	1,528,827	Peoria, Ill.	<sup>2</sup> 46,200

## FLAXSEED.

	<i>Bushels.</i>		<i>Bushels.</i>
Minneapolis, Minn.	8,251,680	Milwaukee, Wis.	434,825
Duluth, Minn.	7,726,288	Cleveland, Ohio.	122,760
New York, N. Y.	5,339,393	Kansas City, Mo.-Kans.	15,000
Chicago, Ill.	1,537,600		

## GRAIN, TOTAL.

	<i>Bushels.</i>		<i>Bushels.</i>
Chicago, Ill.	254,913,600	Louisville, Ky.	22,542,783
Minneapolis, Minn.	135,168,210	Indianapolis, Ind.	21,799,200
St. Louis, Mo.	61,934,838	Cincinnati, Ohio.	19,236,647
Kansas City, Mo.-Kans.	52,632,350	Toledo, Ohio.	14,585,000
Omaha, Nebr.	48,685,600	Cleveland, Ohio.	13,912,809
Milwaukee, Wis.	44,163,426	Wichita, Kans.	9,957,320
Duluth, Minn.	42,202,949	Detroit, Mich.	9,783,489
Peoria, Ill.	29,269,076	Little Rock, Ark.	5,513,000

<sup>1</sup> Returns apparently far from complete.

<sup>2</sup> Dozens reduced to cases at the rate of 30 dozens to 1 case.

Cities in order of importance as trade centers for specified commodities, year ending June 30, 1912—Continued.

## HAY.

City.	Receipts in order of amount.	City.	Receipts in order of amount.
	<i>Short tons.</i>		<i>Short tons.</i>
Chicago, Ill.....	352,324	Milwaukee, Wis.....	39,934
New York, N. Y.....	338,860	Peoria, Ill.....	39,251
Kansas City, Mo.-Kans.....	308,940	Louisville, Ky.....	36,872
St. Louis, Mo.....	259,642	Indianapolis, Ind.....	<sup>1</sup> 22,836
Boston, Mass.....	<sup>1</sup> 198,168	Little Rock, Ark.....	<sup>1</sup> 17,424
Cincinnati, Ohio.....	154,712	Seattle, Wash.....	632
San Francisco, Cal.....	146,408		

## HOGS.

	<i>Number.</i>		<i>Number.</i>
Chicago, Ill.....	7,858,993	St. Paul, Minn.....	985,064
St. Louis, Mo.....	3,486,818	Baltimore, Md.....	830,556
Kansas City, Mo.-Kans.....	2,860,633	Louisville, Ky.....	795,601
Omaha, Nebr.....	2,809,578	Cleveland, Ohio.....	562,373
St. Joseph, Mo.....	2,070,364	Wichita, Kans.....	452,861
Indianapolis, Ind.....	2,023,323	Peoria, Ill.....	443,627
New York, N. Y.....	1,686,126	Fort Worth, Tex.....	423,678
Sioux City, Iowa.....	1,667,811	Philadelphia, Pa.....	242,089
Cincinnati, Ohio.....	1,262,790	Denver, Colo.....	238,802
Boston, Mass.....	1,161,006	Portland, Oreg.....	93,516
Milwaukee, Wis.....	1,090,979		

## HOPS.

	<i>Bales.</i>		<i>Bales.</i>
New York, N. Y.....	79,032	San Francisco, Cal.....	18,322
Chicago, Ill.....	<sup>2</sup> 44,623		

## HORSES AND MULES.

	<i>Number.</i>		<i>Number.</i>
St. Louis, Mo.....	174,326	Cincinnati, Ohio.....	20,077
Chicago, Ill.....	97,839	Indianapolis, Ind.....	17,820
Cleveland, Ohio.....	84,728	Sioux City, Iowa.....	16,385
Kansas City, Mo.-Kans.....	81,054	Denver, Colo.....	14,749
St. Joseph, Mo.....	41,994	St. Paul, Minn.....	7,512
Fort Worth, Tex.....	35,242	Baltimore, Md.....	4,920
Omaha, Nebr.....	31,963	Wichita, Kans.....	4,405
Boston, Mass.....	23,936	Portland, Oreg.....	2,291

## LEMONS.

	<i>Boxes.</i>		<i>Boxes.</i>
Cincinnati, Ohio.....	88,125	New York, N. Y.....	82,074

## OATS.

	<i>Bushels.</i>		<i>Bushels.</i>
Chicago, Ill.....	88,720,600	Duluth, Minn.....	4,584,101
New York, N. Y.....	22,504,675	Boston, Mass.....	4,579,564
St. Louis, Mo.....	18,433,005	Louisville, Ky.....	4,273,530
Milwaukee, Wis.....	10,995,760	Baltimore, Md.....	4,005,135
Minneapolis, Minn.....	10,783,880	Detroit, Mich.....	3,134,706
Omaha, Nebr.....	9,922,900	Toledo, Ohio.....	3,023,000
Cleveland, Ohio.....	8,256,048	San Francisco, Cal.....	2,080,894
Philadelphia, Pa.....	7,427,897	New Orleans, La.....	1,912,840
Peoria, Ill.....	7,360,206	Little Rock, Ark.....	1,548,000
Kansas City, Mo.-Kans.....	6,505,900	Wichita, Kans.....	527,700
Cincinnati, Ohio.....	5,941,699	Newport News, Va.....	112,638
Indianapolis, Ind.....	5,194,500		

<sup>1</sup> Cars reduced to short tons at the rate of 12 tons to 1 car.

<sup>2</sup> Pounds reduced to bales at the rate of 185 pounds to 1 bale

Cities in order of importance as trade centers for specified commodities, year ending June 30, 1912—Continued.

## RYE.

City.	Receipts in order of amount.	City.	Receipts in order of amount.
	<i>Bushels.</i>		<i>Bushels.</i>
Milwaukee, Wis.....	2,581,640	St. Louis, Mo.....	153,942
Minneapolis, Minn.....	2,454,530	Kansas City, Mo.-Kans.....	80,300
Chicago, Ill.....	2,077,200	Omaha, Nebr.....	62,700
Louisville, Ky.....	846,045	Indianapolis, Ind.....	57,200
Duluth, Minn.....	758,764	Boston, Mass.....	36,920
Baltimore, Md.....	662,575	San Francisco, Cal.....	34,025
Cincinnati, Ohio.....	635,692	Toledo, Ohio.....	28,000
Peoria, Ill.....	282,570	Cleveland, Ohio.....	6,134
New York, N. Y.....	236,990	Wichita, Kans.....	2,000
Detroit, Mich.....	198,538		

## SHEEP.

	<i>Number.</i>		<i>Number.</i>
Chicago, Ill.....	5,995,879	Cleveland, Ohio.....	473,190
Omaha, Nebr.....	3,103,491	Louisville, Ky.....	435,010
New York, N. Y.....	2,329,065	Baltimore, Md.....	416,543
Kansas City, Mo.-Kans.....	2,174,572	Fort Worth, Tex.....	286,834
St. Louis, Mo.....	977,206	Portland, Ore.....	269,819
St. Paul, Minn.....	742,996	Sioux City, Iowa.....	215,391
St. Joseph, Mo.....	719,561	Indianapolis, Ind.....	159,818
Philadelphia, Pa.....	631,981	Wichita, Kans.....	109,564
Denver, Colo.....	603,175	Milwaukee, Wis.....	57,482
Boston, Mass.....	512,135	Peoria, Ill.....	4,410
Cincinnati, Ohio.....	499,669		

## WATERMELONS.

	<i>Cars.</i>		<i>Cars.</i>
Cincinnati, Ohio.....	2,666	Boston, Mass.....	649

## WHEAT.

	<i>Bushels.</i>		<i>Bushels.</i>
Minneapolis, Minn.....	96,889,890	Toledo, Ohio.....	7,406,300
New York, N. Y.....	37,251,100	San Francisco, Cal.....	5,933,492
Chicago, Ill.....	36,393,100	Louisville, Ky.....	5,324,664
Duluth, Minn.....	30,606,922	Indianapolis, Ind.....	4,965,200
Kansas City, Mo.-Kans.....	23,625,600	Detroit, Mich.....	2,834,180
Philadelphia, Pa.....	17,903,570	Cincinnati, Ohio.....	2,824,322
St. Louis, Mo.....	15,045,815	Peoria, Ill.....	1,509,522
Omaha, Nebr.....	12,621,600	Cleveland, Ohio.....	1,326,945
Baltimore, Md.....	12,123,160	New Orleans, La.....	667,000
Boston, Mass.....	11,985,807	Newport News, Va.....	226,945
Milwaukee, Wis.....	8,497,290	Little Rock, Ark.....	142,000
Wichita, Kans.....	7,660,100		

## WOOL.

	<i>Pounds.</i>		<i>Pounds.</i>
Boston, Mass.....	321,959,794	Cincinnati, Ohio.....	<sup>2</sup> 7,023,900
Chicago, Ill.....	68,384,500	Louisville, Ky.....	5,400,515
St. Louis, Mo.....	23,998,230	Indianapolis, Ind.....	30,000
San Francisco, Cal.....	<sup>1</sup> 19,987,920		

<sup>1</sup> Sacks reduced to pounds at the rate of 340 pounds to 1 sack.

<sup>2</sup> Bags reduced to pounds at the rate of 100 pounds to 1 bag.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912.

## ALMONDS.

SAN FRANCISCO, CAL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Sacks.	Per cent.	Sacks.	Sacks.
July.....	145	1.5		
August.....	1,210	12.5		
September.....	3,770	39.1		
October.....	910	9.4		
November.....	1,675	17.4		
December.....	85	.9		
January.....				
February.....				
March.....	1,800	18.7		
April.....				
May.....	5	(1)		
June.....	50	.5		
Total.....	9,650	100.0		

## APPLES.

BOSTON, MASS.

	Barrels.	Per cent.	Barrels.	Barrels.
July.....	5,327	0.7		
August.....	17,651	2.2		
September.....	49,465	6.3		
October.....	248,986	31.7		
November.....	257,570	32.8		
December.....	94,364	12.0		
January.....	30,309	3.9		
February.....	29,572	3.8		
March.....	27,793	3.5		
April.....	13,573	1.7		
May.....	9,986	1.3		
June.....	1,067	.1		
Total.....	785,663	100.0		

## CINCINNATI, OHIO.

July.....	3,642	1.2	465	3,177
August.....	10,347	3.3	2,814	7,533
September.....	27,634	8.9	6,510	21,124
October.....	73,431	23.8	18,504	54,927
November.....	72,798	23.6	26,553	46,245
December.....	50,657	16.4	32,931	17,726
January.....	8,471	2.7	7,246	1,225
February.....	19,636	6.4	12,396	7,240
March.....	21,383	6.9	14,297	7,086
April.....	14,515	4.7	9,305	5,210
May.....	5,291	1.7	5,311	* 20
June.....	1,353	.4	2,176	* 823
Total.....	309,158	100.0	138,508	170,550

<sup>1</sup> Less than 0.05 of 1 per cent.

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## APPLES—Continued.

LOUISVILLE, KY.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Barrels.</i>	<i>Per cent.</i>	<i>Barrels.</i>	<i>Barrels.</i>
July.....	1,825	1.2	188	1,637
August.....	6,697	4.3	845	5,852
September.....	24,630	15.7	3,431	21,199
October.....	64,334	40.9	8,263	56,071
November.....	28,987	18.4	8,759	20,228
December.....	8,101	5.2	9,718	* 1,617
January.....	4,137	2.6	8,225	* 4,088
February.....	8,163	5.2	10,189	* 2,026
March.....	4,387	2.8	10,414	* 6,027
April.....	3,248	2.1	6,442	* 3,194
May.....	1,787	1.1	1,143	644
June.....	805	.5	470	335
Total.....	157,101	100.0	68,087	89,014

ST. LOUIS, MO.<sup>1</sup>

July.....	3,617	1.2	3,913	* 296
August.....	24,717	8.4	6,425	18,292
September.....	43,446	14.7	17,387	26,059
October.....	122,593	41.4	30,053	92,540
November.....	58,990	19.9	24,442	34,548
December.....	21,753	7.3	20,773	980
January.....	6,987	2.5	10,987	* 4,000
February.....	6,067	2.0	11,783	* 5,716
March.....	5,735	1.9	19,635	* 13,900
April.....	1,515	.5	11,335	* 9,820
May.....	245	.1	4,668	* 4,423
June.....	331	.1	4,240	* 3,909
Total.....	295,996	100.0	165,641	130,355

## SAN FRANCISCO, CAL.

	<i>Boxes.</i>	<i>Per cent.</i>	<i>Boxes.</i>	<i>Boxes.</i>
July.....	6,825	2.1		
August.....	34,725	10.4		
September.....	65,330	19.5		
October.....	147,984	44.2		
November.....	43,319	12.9		
December.....	8,070	2.4		
January.....	13,295	4.0		
February.....	5,250	1.6		
March.....	455	.1		
April.....	1,967	.6		
May.....	100	( <sup>2</sup> )		
June.....	7,483	2.2		
Total.....	334,803	100.0		

\* Excess of shipments over receipts.

<sup>1</sup> Including boxes reduced to barrels at the rate of 3 boxes to a barrel.<sup>2</sup> Less than 0.05 per cent.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BARLEY.

BALTIMORE, MD.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....				
August.....	1,321	10.5		
September.....	1,832	14.5		
October.....	947	7.5		
November.....	1,197	9.5		
December.....	3,226	25.5		
January.....				
February.....				
March.....	1,247	9.9		
April.....				
May.....				
June.....	2,851	22.6		
Total.....	12,621	100.0		

## BOSTON, MASS.

Month.	Quantity.	Relative monthly.	Shipments.	Net receipts.
July.....				
August.....	3,207	5.2		
September.....	1,493	2.4		
October.....	1,167	1.9		
November.....	2,933	4.7		
December.....	14,451	23.2		
January.....	4,565	7.3		
February.....	2,204	3.5		
March.....	27,415	44.1		
April.....	2,357	3.8		
May.....	2,334	3.8		
June.....	40	.1		
Total.....	62,166	100.0		

## CHICAGO, ILL.

Month.	Quantity.	Relative monthly.	Shipments.	Net receipts.
July.....	630,000	3.0	125,300	504,700
August.....	1,188,000	5.6	217,800	970,200
September.....	3,549,600	15.9	805,700	2,543,900
October.....	3,883,600	18.5	664,400	3,224,200
November.....	3,215,600	15.3	234,800	2,980,800
December.....	2,280,300	10.8	429,300	1,851,000
January.....	1,887,300	9.0	297,600	1,589,700
February.....	1,593,500	7.6	286,800	1,306,700
March.....	1,114,500	5.3	332,600	781,900
April.....	865,500	4.1	250,600	614,900
May.....	604,500	2.9	159,500	445,000
June.....	426,800	2.0	89,800	337,000
Total.....	21,044,200	100.0	3,894,200	17,150,000

## CINCINNATI, OHIO.

Month.	Quantity.	Relative monthly.	Shipments.	Net receipts.
July.....	2,000	0.4		2,000
August.....	6,410	1.4	1,012	5,398
September.....	48,504	10.3	28	48,476
October.....	91,642	19.5	4,010	87,632
November.....	76,000	16.2	58	75,942
December.....	76,186	16.2	3,024	73,162
January.....	45,280	9.6	11,721	33,559
February.....	23,300	5.0	184	23,116
March.....	64,484	13.7	1,118	63,366
April.....	19,024	4.1	86	18,938
May.....	15,000	3.2	10	14,990
June.....	2,000	.4		2,000
Total.....	469,830	100.0	21,251	448,579

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**BARLEY**—Continued.

CLEVELAND, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	1,167	1.0	3,513	*2,346
August.....	1,510	1.3	2,141	*631
September.....	1,839	1.6	.....	1,839
October.....	100,083	89.2	833	99,250
November.....	1,266	1.1	1,168	98
December.....	868	.8	.....	868
January.....	1,982	1.8	.....	1,982
February.....	.....	.....	.....	.....
March.....	1,422	1.3	.....	1,422
April.....	.....	.....	.....	.....
May.....	2,100	1.9	.....	2,100
June.....	.....	.....	.....	.....
Total.....	112,237	100.0	7,655	104,582

DETROIT, MICH.

July.....	.....	.....	.....	.....
August.....	2,240	0.6	.....	2,240
September.....	89,445	23.5	.....	89,445
October.....	81,850	21.5	.....	81,850
November.....	37,416	9.8	2,242	35,174
December.....	53,221	14.0	.....	53,221
January.....	19,838	5.2	.....	19,838
February.....	44,052	11.6	.....	44,052
March.....	32,309	8.5	.....	32,309
April.....	17,420	4.6	1,042	16,378
May.....	1,740	.4	1,759	*19
June.....	1,200	.3	.....	1,200
Total.....	380,731	100.0	5,043	375,688

DULUTH, MINN.

July.....	425	( <sup>1</sup> )	425	.....
August.....	296,467	4.8	110,264	186,203
September.....	2,301,564	38.3	1,757,312	544,252
October.....	2,013,338	33.5	1,442,700	570,638
November.....	1,026,646	17.1	1,871,937	*845,291
December.....	207,670	3.5	346,748	*139,078
January.....	26,466	.4	63,474	*37,008
February.....	15,636	.3	28,034	*12,398
March.....	50,360	.8	25,721	24,639
April.....	40,544	.7	240,264	*199,720
May.....	30,105	.5	306,176	*276,071
June.....	2,845	.1	1,130	1,715
Total.....	6,012,066	100.0	6,194,185	*182,119

\* Excess of shipments over receipts.

<sup>1</sup> Less than 0.05 per cent.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BARLEY—Continued.

INDIANAPOLIS, IND.<sup>1</sup>

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....			14,000	
August.....			12,000	
September.....			9,000	
October.....	2,000	12.5	7,000	
November.....	1,000	6.2		
December.....	1,000	6.3	5,000	
January.....	2,400	15.0	7,200	
February.....	2,400	15.0		
March.....	3,600	22.5		
April.....				
May.....	1,200	.5	20,600	
June.....	2,400	15.0		
Total.....	16,000	100.0	74,800	

## KANSAS CITY, MO.

July.....	1,400	0.6		1,400
August.....	5,600	2.4	2,800	2,800
September.....	51,800	21.8	56,000	* 4,200
October.....	42,000	17.6	30,800	11,200
November.....	23,800	10.0	33,600	* 9,800
December.....	30,800	12.9	15,400	15,400
January.....	19,600	8.2	30,800	* 11,200
February.....	16,800	7.1	12,600	4,200
March.....	21,000	8.8	7,000	14,000
April.....	14,000	5.9	11,200	2,800
May.....	11,200	4.7	4,200	7,000
June.....				
Total.....	238,000	100.0	204,400	33,600

## LOUISVILLE, KY.

July.....			1,200	* 1,200
August.....	7,900	1.7		7,900
September.....	82,600	17.0		82,600
October.....	58,200	12.0		58,200
November.....	111,400	22.9		111,400
December.....	33,900	6.8		33,900
January.....	18,300	3.8		18,300
February.....	37,300	7.7		37,300
March.....	72,625	15.0		72,625
April.....	35,300	7.3		35,300
May.....	21,500	4.4		21,500
June.....	6,800	1.4		6,800
Total.....	485,825	100.0	1,200	484,625

<sup>1</sup> Returns apparently incomplete.

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BARLEY—Continued.

MILWAUKEE, WIS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	218,086	1.7	151,822	66,264
August.....	1,761,200	13.8	198,463	1,562,737
September.....	2,350,500	18.3	997,713	1,353,087
October.....	1,751,190	13.7	697,590	1,053,600
November.....	1,300,000	10.2	576,854	723,146
December.....	1,204,200	9.4	368,602	835,598
January.....	954,200	7.5	289,675	664,525
February.....	1,224,600	9.6	235,320	989,280
March.....	708,500	5.6	252,855	455,645
April.....	588,900	4.6	176,500	412,400
May.....	451,100	3.5	96,200	354,900
June.....	270,400	2.1	72,700	197,700
Total.....	12,783,176	100.0	4,114,294	8,668,882

## MINNEAPOLIS, MINN.

July.....	176,500	0.9	157,250	19,250
August.....	1,126,600	5.9	300,710	625,890
September.....	5,327,810	28.8	3,058,200	2,469,610
October.....	3,802,630	19.8	3,405,650	396,980
November.....	3,180,840	16.5	2,576,440	604,400
December.....	1,562,500	8.1	2,032,880	*470,380
January.....	1,266,800	6.6	1,208,000	58,800
February.....	1,070,930	5.6	1,032,790	38,140
March.....	548,040	2.8	779,950	*231,910
April.....	405,180	2.1	700,670	*295,490
May.....	290,920	1.6	379,960	*89,040
June.....	242,840	1.3	248,870	*6,030
Total.....	19,201,590	100.0	16,081,370	3,120,220

## NEW YORK, N. Y.

July.....	8,925	0.2		
August.....	71,435	1.5		
September.....	375,011	8.0		
October.....	426,905	9.0		
November.....	548,291	11.6		
December.....	379,958	8.1		
January.....	1,085,919	23.0		
February.....	598,001	12.7		
March.....	511,942	10.9		
April.....	151,336	3.2		
May.....	188,109	3.8		
June.....	375,784	8.0		
Total.....	4,721,616	100.0		

## OMAHA, NEBR.

July.....	1,400		9,000	*7,600
August.....	127,400	3.4	24,000	103,400
September.....	988,400	26.8	82,000	906,400
October.....	841,400	22.8	103,000	738,400
November.....	603,400	16.3	86,000	517,400
December.....	497,000	13.5	68,000	429,000
January.....	208,600	5.7	27,000	181,600
February.....	224,000	6.1	11,000	213,000
March.....	81,200	2.2	15,000	66,200
April.....	72,800	2.0	9,000	63,800
May.....	32,200	.9	6,000	26,200
June.....	9,800	.3		9,800
Total.....	3,687,600	100.0	440,000	3,247,600

\*Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BARLEY—Continued.

PEORIA, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	72,000	3.3	80,060	* 8,060
August.....	80,935	3.7	84,375	* 3,440
September.....	327,116	15	124,616	202,500
October.....	390,000	17.9	129,523	260,477
November.....	195,600	9	110,316	85,284
December.....	243,160	11.2	58,071	185,089
January.....	156,000	7.2	53,642	102,358
February.....	196,800	9	63,643	133,157
March.....	231,779	10.6	75,178	156,601
April.....	182,132	6.1	76,889	55,243
May.....	92,975	4.3	55,464	37,511
June.....	58,315	2.7	75,500	* 17,185
Total.....	2,176,812	100.0	987,277	1,189,535

## ST. LOUIS, MO.

July.....			13,570	* 13,570
August.....	47,180	3.0	16,520	30,660
September.....	485,667	30.4	9,790	475,877
October.....	659,460	41.3	10,230	649,230
November.....	252,284	15.8	3,580	248,704
December.....	89,600	5.6	10,480	79,120
January.....	12,000	.7	16,410	* 4,410
February.....	14,400	.9	19,090	* 4,690
March.....	19,200	1.2	63,380	* 44,180
April.....	14,400	.9	3,070	11,330
May.....	3,200	.2	2,910	290
June.....				
Total.....	1,597,391	100.0	169,030	1,428,361

## SAN FRANCISCO, CAL.

July.....	587,435	6.4	318,146	269,289
August.....	2,083,789	23.4	1,708,550	375,239
September.....	1,021,523	11.4	601,411	420,112
October.....	664,108	7.5	597,495	66,613
November.....	1,399,227	15.7	1,072,185	327,042
December.....	780,446	8.8	599,286	181,160
January.....	455,963	5.1	268,529	187,434
February.....	507,319	5.7	528,711	* 21,392
March.....	257,518	2.9	113,073	144,445
April.....	403,608	4.5	264,687	138,921
May.....	421,200	4.7	104,794	316,406
June.....	350,821	3.9	159,762	191,059
Total.....	8,932,957	100.0	6,336,629	2,596,328

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BEANS.

BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	18,379	4.3		
August.....	15,024	3.5		
September.....	25,093	5.8		
October.....	29,805	6.9		
November.....	54,810	12.7		
December.....	42,042	9.8		
January.....	36,414	8.5		
February.....	46,268	10.8		
March.....	49,923	11.6		
April.....	37,587	8.7		
May.....	46,613	10.8		
June.....	28,433	6.6		
Total.....	430,391	100.0		

## NEW YORK, N. Y.

	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	12,883	3.1		
August.....	17,397	4.2		
September.....	26,853	6.5		
October.....	44,331	10.6		
November.....	62,876	15.2		
December.....	50,771	12.2		
January.....	38,019	9.1		
February.....	48,479	11.6		
March.....	44,626	10.7		
April.....	21,733	5.2		
May.....	21,447	5.2		
June.....	27,090	6.5		
Total.....	416,505	100.0		

## ST. LOUIS, MO.

	<i>Sacks and barrels.</i>	<i>Per cent.</i>	<i>Packages.</i>	<i>Packages.</i>
July.....	1,000	1.2	15,775	
August.....	500	.6	16,375	
September.....	550	.7	23,805	
October.....	12,460	15.2	43,305	
November.....	12,130	14.8	48,095	
December.....	14,250	17.4	47,490	
January.....	10,110	12.3	34,160	
February.....	7,020	8.6	31,285	
March.....	5,600	6.8	29,070	
April.....	4,980	6.1	22,745	
May.....	8,280	10.1	19,865	
June.....	5,100	6.2	17,470	
Total.....	81,980	100.0	349,440	

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BEANS—Continued.

SAN FRANCISCO, CAL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	23,519	2.8		
August.....	30,834	3.7		
September.....	38,007	4.5		
October.....	265,948	31.6		
November.....	209,694	24.9		
December.....	91,720	10.9		
January.....	38,268	4.6		
February.....	28,086	3.3		
March.....	32,402	3.9		
April.....	18,404	2.2		
May.....	46,403	5.5		
June.....	17,978	2.1		
Total.....	841,263	100.0		

## BROOM CORN.

CHICAGO, ILL.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	528,800	5.0	716,800	* 188,000
August.....	351,300	3.3	923,900	* 572,600
September.....	1,165,800	10.9	1,080,100	85,700
October.....	3,498,400	32.8	3,137,200	361,200
November.....	1,173,100	11.0	772,600	400,500
December.....	612,900	5.7	506,400	106,500
January.....	383,900	3.6	481,100	* 97,200
February.....	554,200	5.2	584,900	* 30,700
March.....	531,300	5.0	768,300	* 237,000
April.....	740,200	6.9	674,200	66,000
May.....	461,000	4.3	506,300	* 45,300
June.....	670,900	6.3	439,800	231,100
Total.....	10,671,800	100.0	10,591,600	80,200

## INDIANAPOLIS, IND.

July.....	135,000	4.8	45,000	90,000
August.....	105,000	3.7	165,000	* 60,000
September.....	330,000	11.8	225,000	105,000
October.....	315,000	11.2	60,000	255,000
November.....	240,000	8.6	120,000	120,000
December.....	195,000	7.0		195,000
January.....	645,000	23.0		645,000
February.....	90,000	3.2	30,000	60,000
March.....	165,000	5.9	30,000	135,000
April.....	180,000	6.4	30,000	150,000
May.....	315,000	11.2		315,000
June.....	90,000	3.2	90,000	
Total.....	2,805,000	100.0	795,000	2,010,000

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BROOM CORN—Continued.

PEORIA, ILL.<sup>1</sup>

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	60,000	23.5	60,000	.....
August.....	60,000	23.5	60,000	.....
September.....	.....	.....	411,000	.....
October.....	30,000	11.7	870,000	.....
November.....	.....	.....	185,000	.....
December.....	.....	.....	58,300	.....
January.....	15,000	5.9	75,000	.....
February.....	30,000	11.8	210,000	.....
March.....	.....	.....	90,000	.....
April.....	30,000	11.8	90,000	.....
May.....	.....	.....	30,000	.....
June.....	30,000	11.8	45,000	.....
Total.....	255,000	100.0	2,184,300	.....

## SAN FRANCISCO, CAL.

	<i>Bundles.</i>	<i>Per cent.</i>	<i>Bundles.</i>	<i>Bundles.</i>
July.....	413	8.6	.....	.....
August.....	87	1.8	.....	.....
September.....	60	1.3	.....	.....
October.....	1,820	37.7	.....	.....
November.....	860	17.8	.....	.....
December.....	364	7.6	.....	.....
January.....	178	3.7	.....	.....
February.....	359	7.4	.....	.....
March.....	150	3.1	.....	.....
April.....	253	5.2	.....	.....
May.....	35	.7	.....	.....
June.....	247	5.1	.....	.....
Total.....	4,826	100.0	.....	.....

## BUTTER.

BOSTON, MASS.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	8,282,769	12.4	.....	.....
August.....	7,702,794	11.5	.....	.....
September.....	6,288,939	9.4	.....	.....
October.....	5,000,839	7.5	.....	.....
November.....	3,329,460	5.0	.....	.....
December.....	3,019,606	4.5	.....	.....
January.....	3,282,660	4.9	.....	.....
February.....	3,256,729	4.9	.....	.....
March.....	3,565,555	5.3	.....	.....
April.....	3,905,002	5.8	.....	.....
May.....	7,079,086	10.6	.....	.....
June.....	12,225,290	18.2	.....	.....
Total.....	66,938,729	100.0	.....	.....

<sup>1</sup> Returns apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BUTTER—Continued.

CHICAGO, ILL.

Month.	Receipts, domestic, allsources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	38,292,700	12.0	27,789,000	10,503,700
August.....	36,038,000	11.3	27,360,400	8,677,600
September.....	31,960,000	10.0	25,565,300	6,394,700
October.....	28,843,800	9.0	22,161,000	6,682,800
November.....	22,856,700	7.1	19,069,500	3,787,200
December.....	17,826,600	5.6	20,388,100	* 2,561,500
January.....	20,046,200	6.3	19,779,200	267,000
February.....	19,309,100	6.0	18,901,400	407,700
March.....	17,452,100	5.5	17,748,300	* 296,200
April.....	18,586,400	5.8	17,018,700	1,567,700
May.....	25,478,600	8.0	23,907,800	1,570,800
June.....	42,754,300	13.4	29,247,000	13,507,300
Total.....	319,444,500	100.0	269,435,700	50,008,800

## CINCINNATI, OHIO.

	<i>Packages.</i>	<i>Per cent.</i>	<i>Packages.</i>	<i>Packages.</i>
July.....	12,286	8.3	10,886	1,400
August.....	10,766	7.2	5,452	5,314
September.....	13,967	9.4	7,470	6,497
October.....	12,481	8.4	16,422	* 3,941
November.....	12,549	8.4	7,161	5,388
December.....	28,282	19.1	11,487	16,795
January.....	11,865	8.0	5,071	6,794
February.....	9,800	6.6	3,920	5,880
March.....	9,812	6.6	4,104	5,708
April.....	8,555	5.8	2,442	6,143
May.....	7,964	5.4	5,594	2,370
June.....	10,062	6.8	8,955	1,107
Total.....	148,419	100.0	88,964	59,455

## NEW YORK, N. Y.

July.....	251,841	10.9		
August.....	214,255	9.3		
September.....	201,454	8.7		
October.....	168,113	7.3		
November.....	150,141	6.5		
December.....	144,668	6.2		
January.....	140,794	6.1		
February.....	160,887	6.9		
March.....	181,055	7.8		
April.....	171,380	7.4		
May.....	218,814	9.4		
June.....	311,427	13.5		
Total.....	2,314,829	100.0		

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## BUTTER—Continued.

PORTLAND, OREG. (by water).

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	1,622	14.6		
August.....	790	7.1		
September.....	727	6.5		
October.....	710	6.4		
November.....	699	6.3		
December.....	796	7.1		
January.....	659	5.9		
February.....	122	1.1		
March.....	135	1.2		
April.....	1,060	9.5		
May.....	1,668	15.0		
June.....	2,147	19.3		
Total.....	11,135	100.0		

## ST. LOUIS, MO.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	2,396,770	9.5	672,280	1,724,490
August.....	2,159,040	8.5	547,670	1,611,370
September.....	2,021,990	8.0	500,540	1,521,450
October.....	2,227,905	8.8	582,740	1,645,165
November.....	2,108,130	8.3	417,730	1,690,400
December.....	2,222,065	8.8	569,330	1,652,735
January.....	1,903,060	7.5	467,600	1,435,460
February.....	1,819,315	7.2	463,390	1,355,925
March.....	2,021,565	8.0	667,270	1,354,295
April.....	2,005,200	7.9	600,200	1,405,000
May.....	2,187,635	8.6	754,450	1,433,185
June.....	2,270,005	8.9	1,036,630	1,233,375
Total.....	25,342,680	100.0	7,279,830	18,062,850

## SAN FRANCISCO, CAL.

	<i>Cents.</i>	<i>Per cent.</i>	<i>Cents.</i>	<i>Cents.</i>
July.....	19,364	8.6		
August.....	17,785	7.9		
September.....	16,641	7.4		
October.....	17,158	7.7		
November.....	14,287	6.4		
December.....	13,021	5.8		
January.....	14,078	6.3		
February.....	14,561	6.5		
March.....	22,823	10.2		
April.....	24,998	11.1		
May.....	25,470	11.4		
June.....	23,912	10.7		
Total.....	224,098	100.0		

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CALVES.

## BALTIMORE, MD.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	4,017	11.7		
August.....	5,249	15.3		
September.....	4,159	12.1		
October.....	3,118	9.1		
November.....	2,033	5.9		
December.....	1,651	4.8		
January.....	2,176	6.3		
February.....	1,354	3.9		
March.....	1,844	5.4		
April.....	2,211	6.4		
May.....	2,641	7.7		
June.....	3,931	11.4		
Total.....	34,384	100.0		

## BOSTON, MASS.

July (4 weeks).....	8,122	7.2		
August (4 weeks).....	7,303	6.5		
September (5 weeks).....	9,115	8.1		
October (4 weeks).....	7,974	7.1		
November (4 weeks).....	7,639	6.8		
December (5 weeks).....	8,058	7.2		
January (4 weeks).....	6,739	6.0		
February (4 weeks).....	7,473	6.7		
March (5 weeks).....	12,886	11.5		
April (4 weeks).....	10,592	9.5		
May (4 weeks).....	13,327	11.9		
June (5 weeks).....	12,846	11.5		
Total.....	112,074	100.0		

## CHICAGO, ILL.

July.....	43,486	7.8	3,041	40,445
August.....	40,894	7.4	2,113	38,781
September.....	33,176	6.0	3,169	30,007
October.....	38,913	7.3	3,784	35,129
November.....	32,734	5.9	2,813	29,921
December.....	28,272	5.1	4,129	24,143
January.....	39,312	7.1	4,805	34,507
February.....	33,779	6.1	2,978	30,801
March.....	57,010	10.3	1,403	55,607
April.....	81,032	14.6	534	80,498
May.....	70,656	12.7	617	70,039
June.....	53,932	9.7	762	53,170
Total.....	553,196	100.0	30,148	523,048

## CINCINNATI, OHIO.

July.....	6,318	8.6	644	5,674
August.....	6,005	8.1	685	5,320
September.....	5,539	7.5	621	4,918
October.....	5,473	7.4	411	5,062
November.....	4,294	5.8	243	4,051
December.....	4,393	6.0	581	3,812
January.....	5,556	7.5	1,178	4,378
February.....	4,880	6.6	663	4,217
March.....	6,601	9.0	1,839	4,762
April.....	8,219	11.2	1,188	7,031
May.....	8,628	11.7	1,091	7,537
June.....	7,802	10.6	1,703	6,099
Total.....	73,708	100.0	10,847	62,861

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CALVES—Continued.

## DENVER, COLO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July .....	1,079	4.0	85	994
August .....	1,639	6.1	75	1,564
September .....	1,313	4.9	110	1,203
October .....	2,449	9.2	464	1,985
November .....	3,063	11.5	1,443	1,620
December .....	1,595	6.0	627	968
January .....	1,885	7.1	455	1,430
February .....	1,574	5.9	85	1,489
March .....	3,962	14.8	2,666	1,296
April .....	5,191	19.4	4,118	1,073
May .....	1,929	7.2	962	967
June .....	1,048	3.9	454	594
Total .....	26,727	100.0	11,544	15,183

## FORT WORTH, TEX.

July .....	16,938	8.6	4,725	12,213
August .....	23,644	11.9	6,198	17,446
September .....	11,276	5.7	7,211	4,065
October .....	24,562	12.4	6,688	17,774
November .....	19,192	9.7	6,828	12,364
December .....	13,113	6.6	3,878	9,235
January .....	13,444	6.8	2,574	10,870
February .....	7,855	4.0	2,765	5,090
March .....	8,505	4.3	2,585	5,920
April .....	14,430	7.3	2,172	12,258
May .....	17,750	9.0	5,504	12,246
June .....	27,042	13.7	6,261	20,781
Total .....	197,651	100.0	57,389	140,262

## INDIANAPOLIS, IND.

July .....	9,313	7.4	4,665	4,648
August .....	13,605	10.8	8,734	4,871
September .....	25,845	20.5	5,043	20,802
October .....	12,170	9.6	8,628	3,542
November .....	9,473	7.5	5,550	3,923
December .....	7,060	5.6	4,361	2,699
January .....	8,070	6.4	4,702	3,368
February .....	5,918	4.7	2,204	3,714
March .....	7,739	6.1	3,409	4,330
April .....	8,228	6.5	3,257	4,971
May .....	9,209	7.3	4,521	4,688
June .....	9,599	7.6	5,023	4,576
Total .....	126,229	100.0	60,097	66,132

## KANSAS CITY, MO.

July .....	30,124	13.6	7,291	22,833
August .....	36,483	16.4	9,613	26,870
September .....	37,414	16.9	14,076	23,338
October .....	38,255	17.2	18,292	19,963
November .....	23,312	10.5	11,913	11,399
December .....	9,469	4.3	2,999	6,470
January .....	8,583	3.9	1,700	6,883
February .....	6,225	2.9	1,189	5,036
March .....	6,131	2.7	1,074	5,057
April .....	6,882	3.1	1,182	5,700
May .....	6,823	3.1	570	6,253
June .....	11,980	5.4	741	11,239
Total .....	221,681	100.0	70,640	151,041

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CALVES—Continued.\*

LOUISVILLE, KY.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	3,085	9.0	1,740	1,345
August.....	3,029	8.8	1,768	1,261
September.....	2,950	8.6	1,580	1,370
October.....	2,853	8.3	1,196	1,657
November.....	2,464	7.2	1,324	1,140
December.....	1,259	3.7	763	496
January.....	2,525	7.4	1,064	1,461
February.....	2,216	6.5	1,000	1,216
March.....	2,594	7.6	1,022	1,572
April.....	2,985	8.7	884	2,101
May.....	3,766	11.0	1,306	2,460
June.....	4,541	13.2	2,829	1,712
Total.....	34,267	100.0	16,476	17,791

## MILWAUKEE, WIS.

July.....	8,337	7.5	107	8,230
August.....	4,589	4.2	5	4,584
September.....	4,199	3.8	354	3,845
October.....	4,177	3.8	76	4,101
November.....	4,626	4.2	107	4,519
December.....	5,306	4.8	40	5,266
January.....	7,613	6.9	69	7,544
February.....	6,933	6.3	11	6,922
March.....	14,283	12.9	59	14,224
April.....	15,953	14.4	254	15,699
May.....	19,728	17.9	186	19,542
June.....	14,659	13.3	181	14,478
Total.....	110,403	100.0	1,449	108,954

## NEW YORK, N. Y.

July (4 weeks).....	34,571	8.6		
August (4 weeks).....	29,649	7.4		
September (5 weeks).....	35,790	8.9		
October (4 weeks).....	25,019	6.2		
November (4 weeks).....	24,157	6.0		
December (5 weeks).....	23,275	5.8		
January (4 weeks).....	20,875	5.2		
February (4 weeks).....	18,608	4.6		
March (5 weeks).....	31,943	7.9		
April (4 weeks).....	46,033	11.4		
May (4 weeks).....	56,618	14.0		
June (5 weeks).....	56,467	14.0		
Total.....	403,005	100.0		

## PHILADELPHIA, PA.

July (4 weeks).....	12,058	9.5		
August (4 weeks).....	11,618	9.1		
September (5 weeks).....	12,770	10.0		
October (4 weeks).....	10,049	7.9		
November (4 weeks).....	8,768	6.9		
December (5 weeks).....	10,479	8.2		
January (4 weeks).....	5,308	4.2		
February (4 weeks).....	9,355	7.4		
March (5 weeks).....	11,883	9.4		
April (4 weeks).....	10,341	8.1		
May (4 weeks).....	10,628	8.4		
June (5 weeks).....	13,799	10.9		
Total.....	127,056	100.0		

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CALVES—Continued.

## PORTLAND, OREG.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	1,229	20.8	1,260	*31
August.....	687	11.6	712	*25
September.....	873	14.8	868	5
October.....	983	16.6	697	286
November.....	661	11.2	937	*276
December.....	168	2.8	180	*12
January.....	217	3.7	214	3
February.....	63	1.1	66	*3
March.....	131	2.2	128	3
April.....	197	3.3	187	10
May.....	464	7.8	.....	464
June.....	244	4.1	242	2
Total.....	5,917	100.0	5,491	426

## ST. JOSEPH, MO.

July.....	4,995	10.7	204	4,791
August.....	5,275	11.4	130	5,145
September.....	5,015	10.8	224	4,791
October.....	5,861	12.6	2,256	3,605
November.....	4,157	9.0	1,287	2,870
December.....	2,963	6.4	749	2,214
January.....	4,057	8.7	482	3,575
February.....	2,820	6.1	871	1,949
March.....	2,801	6.0	306	2,495
April.....	3,321	7.2	437	2,884
May.....	2,473	5.3	1	2,472
June.....	2,672	5.8	94	2,578
Total.....	46,410	100.0	7,041	39,369

## ST. PAUL, MINN.

July.....	8,961	7.3	1,244	7,717
August.....	11,413	9.2	1,414	9,999
September.....	10,319	8.4	2,124	8,195
October.....	13,968	11.3	3,827	10,141
November.....	7,878	6.4	1,359	6,519
December.....	5,048	4.1	916	4,132
January.....	6,597	5.3	972	5,625
February.....	6,385	5.2	515	5,870
March.....	9,812	7.9	1,098	8,714
April.....	13,665	11.1	1,043	12,622
May.....	14,249	11.5	1,935	12,314
June.....	15,195	12.3	2,394	12,796
Total.....	123,490	100.0	18,846	104,644

## SIOUX CITY, IOWA.

July.....	3,290	9.4	366	2,924
August.....	4,001	11.4	527	3,474
September.....	3,911	11.2	698	3,213
October.....	5,533	15.8	274	5,259
November.....	3,477	10.0	30	3,447
December.....	1,608	4.6	21	1,587
January.....	1,979	5.7	16	1,963
February.....	1,578	4.5	56	1,522
March.....	2,569	7.4	62	2,507
April.....	2,058	5.9	30	2,028
May.....	2,055	5.9	32	2,023
June.....	2,877	8.2	16	2,861
Total.....	34,936	100.0	2,128	32,808

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CATTLE.

## BALTIMORE, MD.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	59,793	24.8		
August.....	59,520	24.7		
September.....	18,231	7.6		
October.....	22,203	9.2		
November.....	15,201	6.3		
December.....	12,246	5.1		
January.....	12,974	5.4		
February.....	7,130	3.0		
March.....	9,667	4.0		
April.....	8,008	3.3		
May.....	7,844	3.2		
June.....	8,177	3.4		
Total.....	240,994	100.0		

## BOSTON, MASS.

July (4 weeks).....	91,607	31.0		
August (4 weeks).....	79,606	26.9		
September (3 weeks).....	17,355	5.9		
October (4 weeks).....	15,597	5.3		
November (4 weeks).....	16,535	5.6		
December (5 weeks).....	19,361	6.5		
January (4 weeks).....	12,203	4.1		
February (4 weeks).....	7,861	2.6		
March (5 weeks).....	10,242	3.5		
April (4 weeks).....	7,883	2.7		
May (4 weeks).....	7,633	2.6		
June (5 weeks).....	9,791	3.3		
Total.....	295,674	100.0		

## CHICAGO, ILL.

July.....	240,188	8.4	91,601	148,587
August.....	246,203	8.6	89,984	156,219
September.....	225,588	7.9	89,113	136,475
October.....	319,987	11.2	126,571	193,416
November.....	293,229	10.3	120,151	173,078
December.....	242,292	8.5	101,743	140,549
January.....	254,054	10.0	109,993	174,061
February.....	210,524	7.3	91,618	118,906
March.....	213,563	7.5	80,370	133,193
April.....	208,053	7.6	79,399	128,654
May.....	197,914	6.9	69,949	127,965
June.....	167,499	5.8	58,418	109,081
Total.....	2,849,094	100.0	1,108,910	1,740,184

## CINCINNATI, OHIO.

July.....	25,359	7.7	9,527	15,832
August.....	37,594	11.5	21,037	16,557
September.....	31,202	9.5	20,025	11,177
October.....	33,411	10.2	11,886	21,525
November.....	28,140	8.6	14,211	13,929
December.....	24,343	7.4	10,397	13,946
January.....	25,194	7.7	7,819	17,375
February.....	20,905	6.4	5,253	15,652
March.....	20,490	6.3	5,567	15,923
April.....	24,925	7.6	9,371	14,554
May.....	26,265	8.0	16,571	9,694
June.....	29,629	9.1	16,317	13,312
Total.....	327,457	100.0	147,981	179,476



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CATTLE—Continued.

## CLEVELAND, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	7,876	8.9	852	7,024
August.....	8,164	9.2	984	7,180
September.....	8,724	9.8	323	8,401
October.....	12,285	13.8	755	11,530
November.....	7,155	8.1	2,395	4,760
December.....	7,264	8.1	3,110	4,154
January.....	7,966	9.0	1,119	6,847
February.....	2,292	2.6	1,893	396
March.....	4,603	5.2	1,203	3,400
April.....	6,857	7.8	812	6,075
May.....	7,116	8.0	1,412	5,704
June.....	8,423	9.5	948	7,475
Total.....	88,755	100.0	15,809	72,946

## DENVER, COLO.

July.....	10,918	3.8	4,740	6,178
August.....	14,903	5.2	8,532	6,371
September.....	23,108	8.0	17,761	5,347
October.....	44,118	15.3	34,369	9,749
November.....	41,876	14.6	38,479	3,397
December.....	13,225	4.6	8,568	4,657
January.....	23,563	8.2	17,495	6,068
February.....	9,407	3.3	4,290	5,117
March.....	9,667	3.4	4,020	5,647
April.....	11,134	3.9	6,046	5,088
May.....	45,490	15.8	34,560	10,930
June.....	39,821	13.9	40,421	* 600
Total.....	287,230	100.0	219,281	67,949

## FORT WORTH, TEX.

July.....	47,451	6.2	9,897	37,554
August.....	58,882	7.7	22,211	36,671
September.....	58,862	7.7	22,876	35,986
October.....	76,073	9.9	29,646	46,427
November.....	81,177	10.6	30,790	50,387
December.....	55,803	7.2	19,954	35,849
January.....	51,660	6.7	10,427	41,233
February.....	42,037	5.5	10,609	31,428
March.....	42,688	5.5	13,724	28,964
April.....	80,723	10.5	41,309	39,414
May.....	102,888	13.4	58,915	43,973
June.....	69,981	9.1	30,899	39,082
Total.....	768,225	100.0	301,257	466,968

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CATTLE—Continued.

## INDIANAPOLIS, IND.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	26,091	8.8	8,530	17,561
August.....	28,841	9.8	9,862	18,979
September.....	24,901	8.4	9,674	15,227
October.....	28,789	9.7	11,817	16,972
November.....	27,488	9.3	10,669	16,819
December.....	22,643	7.7	7,402	15,241
January.....	29,061	9.8	10,400	18,661
February.....	19,929	6.7	5,908	14,021
March.....	22,336	7.6	6,149	16,187
April.....	20,844	7.1	7,110	13,734
May.....	22,446	7.6	8,994	13,452
June.....	21,999	7.5	8,044	13,955
Total.....	295,368	100.0	104,559	190,809

## KANSAS CITY, MO.

July.....	182,878	9.4	70,024	112,854
August.....	208,310	10.7	88,250	120,060
September.....	224,687	11.6	110,275	114,412
October.....	333,415	17.1	151,365	182,050
November.....	208,104	10.7	95,894	112,210
December.....	123,050	6.3	46,137	76,913
January.....	157,021	8.1	53,143	103,878
February.....	103,578	5.4	44,956	58,622
March.....	101,537	5.2	32,522	69,015
April.....	107,600	5.5	37,740	69,860
May.....	94,947	4.9	29,955	64,992
June.....	100,133	5.1	31,126	69,007
Total.....	1,945,260	100.0	791,387	1,153,873

## LOUISVILLE, KY.

July.....	9,116	6.7	3,357	5,759
August.....	9,246	6.8	5,923	3,323
September.....	14,225	10.4	8,067	6,158
October.....	23,796	17.5	13,883	9,913
November.....	17,324	12.7	11,766	5,558
December.....	9,442	6.9	4,232	5,210
January.....	10,305	7.9	6,737	4,068
February.....	6,529	4.8	2,818	3,711
March.....	7,400	5.4	3,160	4,240
April.....	7,643	5.6	3,883	3,760
May.....	11,305	8.3	7,168	4,137
June.....	9,610	7.0	5,608	4,002
Total.....	136,441	100.0	76,602	59,839

## MILWAUKEE, WIS.

July.....	7,770	6.6	1,142	6,628
August.....	8,542	7.3	1,178	7,364
September.....	11,644	9.9	2,902	8,742
October.....	12,743	10.9	5,573	7,170
November.....	12,977	11.1	5,109	7,868
December.....	10,014	8.6	1,912	8,102
January.....	10,633	9.1	1,066	9,567
February.....	8,354	7.1	844	7,510
March.....	8,731	7.5	1,401	7,330
April.....	7,413	6.3	803	6,610
May.....	9,371	8.0	1,090	8,281
June.....	8,875	7.6	1,056	7,819
Total.....	117,067	100.0	24,076	92,991

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CATTLE—Continued.

NEW YORK, N. Y.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, includ- ing exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July (4 weeks).....	91,493	12.7		
August (4 weeks).....	94,306	13.0		
September (5 weeks).....	61,588	8.5		
October (4 weeks).....	50,444	7.0		
November (4 weeks).....	50,276	7.0		
December (5 weeks).....	58,808	8.1		
January (4 weeks).....	51,336	7.1		
February (4 weeks).....	48,694	6.7		
March (5 weeks).....	64,229	8.9		
April (4 weeks).....	49,563	6.9		
May (4 weeks).....	50,510	7.0		
June (5 weeks).....	51,397	7.1		
Total.....	722,644	100.0		

## OMAHA, NEBR.

July.....	75,214	6.8	22,578	52,636
August.....	128,734	11.7	56,113	72,621
September.....	128,656	11.7	64,550	64,106
October.....	162,415	14.8	80,867	81,548
November.....	101,426	9.2	48,003	53,423
December.....	80,472	7.3	28,948	51,524
January.....	95,624	8.7	23,824	71,800
February.....	78,764	7.1	25,261	53,503
March.....	80,113	7.3	21,262	58,851
April.....	66,816	6.1	22,703	44,113
May.....	59,244	5.4	17,510	41,734
June.....	43,515	3.9	10,509	33,006
Total.....	1,100,993	100.0	422,128	678,865

PEORIA, ILL.<sup>1</sup>

July.....	2,280	6.0	6,367	* 4,087
August.....	4,949	13.0	3,961	988
September.....	8,364	21.9	3,055	5,309
October.....	5,822	15.3	1,447	4,375
November.....	2,798	7.3	2,211	587
December.....	2,470	6.5	2,322	148
January.....	2,945	7.7	2,280	665
February.....	1,773	4.6	2,052	* 279
March.....	1,705	4.5	1,825	* 120
April.....	2,036	5.3	4,621	* 2,585
May.....	1,594	4.2	7,861	* 6,267
June.....	1,411	3.7	5,794	* 4,383
Total.....	38,147	100.0	43,796	* 5,649

## PHILADELPHIA, PA.

July (4 weeks).....	14,608	7.1		
August (4 weeks).....	15,163	7.4		
September (5 weeks).....	20,818	10.1		
October (4 weeks).....	15,257	7.4		
November (4 weeks).....	14,743	7.2		
December (5 weeks).....	16,622	8.1		
January (4 weeks).....	15,569	7.6		
February (4 weeks).....	13,770	6.7		
March (5 weeks).....	21,054	10.3		
April (4 weeks).....	17,724	8.6		
May (4 weeks).....	17,711	8.6		
June (5 weeks).....	22,319	10.9		
Total.....	205,358	100.0		

<sup>1</sup> Receipts apparently incomplete.

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CATTLE—Continued.

## PORTLAND, OREG.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	8,738	10.5	8,736	2
August.....	8,690	10.5	8,352	338
September.....	8,195	9.9	8,483	* 288
October.....	5,549	6.7	5,619	* 70
November.....	7,291	8.8	7,078	213
December.....	4,153	5.0	3,791	362
January.....	8,521	10.3	8,731	* 210
February.....	6,275	7.6	6,347	* 72
March.....	7,792	9.4	7,472	320
April.....	7,482	9.0	7,942	* 460
May.....	4,421	5.3	( <sup>1</sup> )	4,421
June.....	5,830	7.0	5,826	4
Total.....	82,937	100.0	78,377	4,560

## ST. JOSEPH, MO.

July.....	33,794	7.4	9,263	24,531
August.....	45,941	10.1	10,946	34,995
September.....	46,960	10.4	14,135	32,825
October.....	53,983	11.9	19,507	34,476
November.....	40,534	9.0	15,198	25,636
December.....	34,114	7.5	10,254	23,860
January.....	47,497	10.5	15,839	31,658
February.....	34,841	7.7	13,370	21,471
March.....	35,848	7.9	11,092	24,756
April.....	30,155	6.6	9,231	20,924
May.....	28,674	6.5	6,793	21,881
June.....	20,651	4.5	4,077	16,574
Total.....	453,292	100.0	139,705	313,587

## ST. LOUIS, MO.

July.....	111,072	9.8	37,168	73,904
August.....	121,422	10.7	30,689	90,733
September.....	137,631	12.1	46,548	91,083
October.....	168,056	14.8	59,247	108,809
November.....	115,199	10.1	33,881	81,318
December.....	79,584	7.0	16,415	63,169
January.....	78,762	6.9	13,418	65,344
February.....	57,973	5.1	9,039	48,934
March.....	54,439	4.8	8,177	46,262
April.....	50,759	4.4	6,822	43,937
May.....	66,195	5.8	11,033	55,162
June.....	96,461	8.5	27,196	69,265
Total.....	1,137,553	100.0	299,633	837,920

\* Excess of shipments over receipts.

<sup>1</sup> No data.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CATTLE—Continued.

ST. PAUL, MINN.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent</i>	<i>Number.</i>	<i>Number.</i>
July.....	22,575	5.5	14,019	8,556
August.....	44,830	11.5	28,662	16,168
September.....	57,558	14.1	41,382	16,176
October.....	90,686	22.2	65,375	25,311
November.....	45,158	11.1	30,285	14,873
December.....	17,366	4.2	8,433	8,933
January.....	20,330	5.0	7,816	12,514
February.....	18,611	4.6	9,285	9,326
March.....	24,453	6.0	15,594	9,859
April.....	27,413	6.7	18,056	9,357
May.....	20,681	5.1	13,894	6,787
June.....	18,217	4.5	10,693	7,524
Total.....	408,878	100.0	263,494	145,384

## SIOUX CITY, IOWA.

July.....	34,057	7.7	14,129	19,928
August.....	40,508	9.1	26,133	14,375
September.....	40,871	9.2	26,714	14,157
October.....	52,717	11.9	28,923	23,794
November.....	37,185	8.4	22,415	14,770
December.....	31,798	7.2	15,430	16,368
January.....	37,639	8.5	14,244	23,395
February.....	33,092	7.4	15,894	17,198
March.....	31,725	7.1	17,789	13,936
April.....	39,268	8.8	21,358	17,910
May.....	35,728	8.0	25,021	10,707
June.....	29,891	6.7	18,246	11,645
Total.....	444,479	100.0	246,296	198,183

## WICHITA, KANS.

July.....	12,642	6.5	6,656	5,986
August.....	14,904	7.7	6,613	8,291
September.....	19,845	10.2	10,579	9,266
October.....	27,058	13.9	14,019	13,039
November.....	25,782	13.3	16,099	9,683
December.....	14,862	7.6	6,721	8,141
January.....	19,561	10.1	8,673	10,888
February.....	13,958	7.2	7,749	6,209
March.....	13,136	6.8	6,594	6,542
April.....	14,647	7.5	7,884	6,763
May.....	9,645	5.0	5,662	3,983
June.....	8,197	4.2	3,717	4,480
Total.....	194,237	100.0	100,966	93,271

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CHEESE.

## BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Boxes.</i>	<i>Per cent.</i>	<i>Boxes.</i>	<i>Boxes.</i>
July.....	27,804	12.9		
August.....	26,871	12.5		
September.....	28,023	13.0		
October.....	32,497	15.1		
November.....	19,537	9.0		
December.....	11,228	5.2		
January.....	6,884	3.2		
February.....	5,017	2.3		
March.....	5,136	2.4		
April.....	5,885	2.7		
May.....	16,963	7.9		
June.....	29,783	13.8		
Total.....	215,628	100.0		

## CHICAGO, ILL.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	9,949,600	10.6	6,857,800	3,091,800
August.....	10,253,400	11.0	6,940,700	3,312,700
September.....	11,588,600	12.4	9,290,700	2,297,900
October.....	12,117,800	12.9	8,129,300	3,988,500
November.....	10,491,400	11.2	6,905,100	3,586,300
December.....	5,699,400	6.0	5,779,100	* 169,700
January.....	4,790,500	5.1	4,315,600	474,900
February.....	4,557,600	4.9	3,774,900	782,700
March.....	4,664,600	5.0	3,037,200	1,627,400
April.....	5,207,500	5.6	3,053,300	2,154,200
May.....	5,994,200	6.4	2,660,300	3,333,900
June.....	8,362,600	8.9	2,953,400	5,409,200
Total.....	93,587,200	100.0	63,697,400	29,889,800

## CINCINNATI, OHIO.

	<i>Boxes.</i>	<i>Per cent.</i>	<i>Boxes.</i>	<i>Boxes.</i>
July.....	17,536	10.7	6,588	10,948
August.....	13,120	8.0	5,790	7,330
September.....	13,725	8.4	4,209	9,516
October.....	18,013	11.0	3,436	14,580
November.....	15,677	9.5	3,750	11,927
December.....	8,933	5.4	8,157	776
January.....	7,592	4.6	5,160	2,432
February.....	7,235	4.4	5,387	1,848
March.....	6,090	3.7	5,918	172
April.....	22,449	13.7	8,303	14,146
May.....	11,927	7.3	4,788	7,139
June.....	21,845	13.3	6,604	15,241
Total.....	164,145	100.0	68,090	96,055

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CHEESE—Continued.

NEW YORK, N. Y.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Boxes.</i>	<i>Per cent.</i>	<i>Boxes.</i>	<i>Boxes.</i>
July.....	120,861	13.8	.....	.....
August.....	100,718	11.5	.....	.....
September.....	84,381	9.7	.....	.....
October.....	81,634	9.3	.....	.....
November.....	72,964	8.4	.....	.....
December.....	42,103	4.8	.....	.....
January.....	33,864	3.9	.....	.....
February.....	34,642	4.0	.....	.....
March.....	44,407	5.1	.....	.....
April.....	58,118	6.7	.....	.....
May.....	83,816	9.6	.....	.....
June.....	115,301	13.2	.....	.....
Total.....	872,809	100.0	.....	.....

## PORTLAND, OREG. (BY WATER).

			<i>Cases.</i>	<i>Cases.</i>
	<i>Cases.</i>	<i>Per cent.</i>		
July.....	886	6.4	.....	.....
August.....	2,101	15.2	.....	.....
September.....	1,594	11.5	.....	.....
October.....	1,932	14.0	.....	.....
November.....	2,025	14.6	.....	.....
December.....	779	5.6	.....	.....
January.....	304	2.2	.....	.....
February.....	9	.....	.....	.....
March.....	.....	.....	.....	.....
April.....	1,737	12.6	.....	.....
May.....	829	6.0	.....	.....
June.....	1,652	11.9	.....	.....
Total.....	13,848	100.0	.....	.....

## ST. LOUIS, MO.

			<i>Boxes.</i>	<i>Boxes.</i>
	<i>Boxes.</i>	<i>Per cent.</i>		
July.....	135,780	8.5	20,950	114,830
August.....	142,460	8.9	22,445	120,015
September.....	137,010	8.6	30,820	106,190
October.....	150,470	9.5	35,325	115,145
November.....	140,560	8.8	34,510	106,050
December.....	149,230	9.4	23,800	125,430
January.....	125,430	7.9	20,170	105,260
February.....	114,270	7.2	20,130	94,140
March.....	127,930	8.0	15,160	112,770
April.....	118,480	7.4	15,605	102,875
May.....	116,760	7.3	17,795	98,965
June.....	135,620	8.5	23,100	112,520
Total.....	1,594,000	100.0	279,810	1,314,190

## SAN FRANCISCO, CAL.

			<i>Centals.</i>	<i>Centals.</i>
	<i>Centals.</i>	<i>Per cent.</i>		
July.....	13,723	11.2	.....	.....
August.....	22,263	18.2	.....	.....
September.....	5,604	4.6	.....	.....
October.....	6,308	5.1	.....	.....
November.....	6,746	5.5	.....	.....
December.....	7,312	6.0	.....	.....
January.....	5,672	4.6	.....	.....
February.....	8,584	7.0	.....	.....
March.....	7,237	5.9	.....	.....
April.....	10,893	8.9	.....	.....
May.....	12,850	10.5	.....	.....
June.....	15,291	12.5	.....	.....
Total.....	122,483	100.0	.....	.....

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CLOVER SEED.

CHICAGO, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	59,000	2.0	11,500	47,500
August.....	270,000	9.1	118,300	151,700
September.....	518,500	17.6	50,900	467,600
October.....	197,500	6.5	110,500	87,000
November.....	176,300	6.0	203,500	* 27,200
December.....	94,700	3.2	131,300	* 36,600
January.....	330,900	11.2	426,100	* 95,200
February.....	336,600	11.4	621,400	* 284,800
March.....	257,100	8.7	419,600	* 162,500
April.....	307,200	10.4	362,800	* 55,600
May.....	213,000	7.3	106,100	106,900
June.....	194,200	6.6	47,600	146,600
Total.....	2,955,000	100.0	2,609,600	345,400

## CINCINNATI, OHIO.

	<i>Bags.</i>	<i>Per cent.</i>	<i>Bags.</i>	<i>Bags.</i>
July.....	252	0.6	432	* 180
August.....	2,615	6.5	1,058	1,557
September.....	4,297	10.8	1,403	2,894
October.....	1,813	4.5	709	1,104
November.....	1,182	3.0	1,022	160
December.....	621	1.6	1,714	* 1,093
January.....	1,983	5.0	3,066	* 1,083
February.....	9,331	23.3	4,160	5,171
March.....	8,595	21.5	8,130	465
April.....	8,343	20.9	5,559	2,784
May.....	534	1.3	1,754	* 1,220
June.....	400	1.0	482	* 82
Total.....	39,966	100.0	29,489	10,477

## CORN.

BALTIMORE, MD.

	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	304,415	2.2		
August.....	205,123	1.5		
September.....	808,918	5.7		
October.....	176,655	1.2		
November.....	456,345	3.2		
December.....	2,503,063	17.7		
January.....	3,745,438	26.5		
February.....	3,984,544	28.2		
March.....	984,689	7.0		
April.....	312,520	2.2		
May.....	416,137	2.9		
June.....	235,941	1.7		
Total.....	14,133,788	100.0		

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CORN—Continued.

BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	83,320	2.3		
August.....	17,000	.5		
September.....	979,226	26.9		
October.....	165,460	4.6		
November.....	66,094	1.8		
December.....	648,514	17.8		
January.....	653,115	18.0		
February.....	579,365	15.9		
March.....	359,803	9.9		
April.....	36,697	1.0		
May.....	18,050	.5		
June.....	29,345	.8		
Total.....	3,635,989	100.0		

## CHICAGO, ILL.

July.....	5,092,600	4.8	8,039,550	* 2,946,950
August.....	6,708,000	6.3	5,759,200	948,800
September.....	11,237,050	10.5	9,972,450	1,264,600
October.....	6,880,950	6.4	7,753,250	* 872,300
November.....	7,838,350	7.3	3,742,900	4,095,450
December.....	8,925,250	8.4	5,182,250	3,742,750
January.....	12,914,350	12.1	5,853,100	7,061,250
February.....	15,204,650	14.3	6,869,850	8,334,800
March.....	10,112,950	9.5	5,283,150	4,829,800
April.....	3,016,150	2.8	6,514,850	* 3,498,700
May.....	5,867,550	5.5	6,319,650	* 452,100
June.....	12,880,650	12.1	8,191,250	4,689,400
Total.....	106,678,500	100.0	79,481,700	27,196,800

## CINCINNATI, OHIO.

July.....	637,396	6.8	805,474	* 168,078
August.....	821,269	8.8	524,305	296,964
September.....	491,387	5.2	392,270	99,117
October.....	442,629	4.7	190,428	252,201
November.....	567,665	6.1	234,023	333,642
December.....	951,364	10.2	711,722	239,642
January.....	1,284,168	13.7	784,054	500,114
February.....	1,332,738	14.2	847,242	485,496
March.....	735,100	7.9	533,645	201,455
April.....	734,652	7.8	430,335	304,317
May.....	557,626	6.0	196,708	360,918
June.....	809,110	8.6	247,568	561,542
Total.....	9,365,104	100.0	5,897,774	3,635,408

## CLEVELAND, OHIO.

July.....	246,030	5.9	212,717	33,313
August.....	441,612	10.5	248,612	193,000
September.....	278,517	6.7	186,600	91,917
October.....	172,395	4.1	105,199	67,196
November.....	408,915	9.7	130,333	278,582
December.....	186,796	4.4	110,127	76,669
January.....	530,418	12.7	142,999	387,419
February.....	399,202	9.5	169,445	229,757
March.....	468,992	11.2	170,043	298,949
April.....	163,694	3.9	100,163	63,531
May.....	391,419	9.6	116,107	275,312
June.....	493,395	11.8	100,419	392,976
Total.....	4,181,385	100.0	1,792,764	2,388,621

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CORN—Continued.

## DETROIT, MICH.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	222,020	6.9	82,278	139,742
August.....	262,540	8.1	101,542	160,998
September.....	151,234	4.7	131,096	20,138
October.....	142,140	4.4	57,254	84,886
November.....	487,531	15.1	182,739	304,792
December.....	535,466	16.5	367,715	167,751
January.....	437,228	13.5	269,638	167,590
February.....	406,556	12.6	360,006	46,550
March.....	257,537	7.9	245,123	12,414
April.....	86,282	2.7	83,098	3,184
May.....	170,000	5.2	79,672	90,328
June.....	76,800	2.4	50,420	26,380
Total.....	3,235,334	100.0	2,010,581	1,224,753

## DULUTH, MINN.

July.....	18,513	7.7	141,469	* <sup>1</sup> 122,956
August.....	21,606	9.0	171,363	* <sup>1</sup> 149,757
September.....	170,112	70.5	179,639	* <sup>1</sup> 9,527
October.....	18,686	7.8	30,765	* <sup>1</sup> 12,079
November.....				
December.....	4,243	1.7		4,243
January.....			1,571	* <sup>1</sup> 1,571
February.....			1,886	* <sup>1</sup> 1,886
March.....			786	* <sup>1</sup> 786
April.....				
May.....				
June.....	7,936	3.3		7,936
Total.....	241,096	100.0	527,479	* <sup>1</sup> 286,383

## INDIANAPOLIS, IND.

July.....	891,000	7.7	77,000	814,000
August.....	711,000	6.1	187,000	524,000
September.....	607,000	5.3	127,000	480,000
October.....	646,000	5.6	113,000	533,000
November.....	745,000	6.4	505,000	240,000
December.....	918,000	7.9	251,000	667,000
January.....	2,648,000	23.0	732,200	1,915,800
February.....	1,063,200	9.2	578,000	485,200
March.....	1,105,200	9.6	414,000	691,200
April.....	569,900	4.8	366,000	203,900
May.....	781,200	6.8	440,400	340,800
June.....	880,800	7.6	416,400	464,400
Total.....	11,566,300	100.0	4,207,000	7,359,300

## KANSAS CITY, MO.

July.....	1,836,000	8.3	1,058,400	777,600
August.....	1,477,200	6.7	939,600	537,600
September.....	608,400	2.7	1,269,600	* 661,200
October.....	861,600	3.9	729,600	132,000
November.....	1,029,600	4.6	734,400	295,200
December.....	2,202,000	9.9	1,416,000	786,000
January.....	2,934,000	13.2	1,724,400	1,209,600
February.....	4,633,750	20.9	2,236,250	2,397,500
March.....	1,411,250	6.4	1,577,500	* 166,250
April.....	1,608,750	7.2	1,783,750	* 175,000
May.....	1,947,500	8.8	1,726,250	221,250
June.....	1,632,500	7.4	1,440,000	192,500
Total.....	22,182,550	100.0	16,635,750	5,546,800

\* Excess of shipments over receipts.

<sup>1</sup> Due apparently to stocks carried over from previous year's receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

CORN—Continued.  
LITTLE ROCK, ARK.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July .....	290,000	7.6	51,000	239,000
August .....	129,000	3.3	57,000	72,000
September .....	105,000	2.7	42,000	63,000
October .....	130,000	3.4	40,000	90,000
November .....	280,000	7.6	100,000	180,000
December .....	385,000	10.0	108,000	277,000
January .....	393,000	10.3	153,000	240,000
February .....	471,000	12.3	108,000	363,000
March .....	304,000	7.9	80,000	224,000
April .....	418,000	10.9	154,000	264,000
May .....	443,000	11.6	126,000	317,000
June .....	475,000	12.4	148,000	327,000
Total .....	3,823,000	100.0	1,167,000	2,656,000

LOUISVILLE, KY.

July .....	855,940	7.4	591,005	264,935
August .....	864,465	7.4	492,285	372,180
September .....	578,919	5.0	371,635	207,284
October .....	768,625	6.6	352,880	415,745
November .....	741,240	6.4	408,990	332,250
December .....	1,058,790	9.1	541,110	517,680
January .....	1,531,435	13.2	857,755	673,680
February .....	1,590,070	13.7	892,945	697,125
March .....	1,316,710	11.3	809,740	506,970
April .....	1,006,420	8.7	613,145	393,275
May .....	709,840	6.1	487,285	222,555
June .....	590,265	5.1	351,290	238,975
Total .....	11,612,719	100.0	6,770,065	4,842,654

MILWAUKEE, WIS.

July .....	227,130	2.4	382,614	* 155,484
August .....	689,300	7.5	332,258	357,042
September .....	670,090	7.3	597,111	72,979
October .....	568,390	6.1	461,685	106,705
November .....	535,620	5.7	321,650	213,970
December .....	1,270,120	13.6	934,600	335,520
January .....	564,170	6.0	430,625	133,545
February .....	1,785,120	19.2	803,785	981,335
March .....	574,680	6.2	821,290	* 246,610
April .....	444,860	4.8	505,182	* 60,322
May .....	765,820	8.2	462,377	303,443
June .....	1,210,320	13.0	696,311	514,009
Total .....	9,305,620	100.0	6,749,488	2,556,132

MINNEAPOLIS, MINN.

July .....	265,190	4.5	269,660	*4,470
August .....	663,150	11.4	241,100	422,050
September .....	249,420	4.3	136,280	113,140
October .....	382,050	6.5	144,440	237,610
November .....	672,620	11.5	183,100	489,420
December .....	581,320	10.0	447,280	134,040
January .....	581,130	10.0	282,500	298,630
February .....	1,063,880	18.2	616,350	447,530
March .....	258,030	4.4	423,780	*165,750
April .....	375,250	6.4	150,240	225,010
May .....	385,240	6.6	275,300	109,940
June .....	361,140	6.2	271,460	89,680
Total .....	5,838,320	100.0	3,441,490	2,396,830

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

CORN—Continued.  
NEWPORT NEWS, VA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....				
August.....	958	0.2		
September.....	7,515	1.5		
October.....	7,285	1.5		
November.....	970	.2		
December.....	174,500	35.0		
January.....	61,112	12.2		
February.....	149,677	30.0		
March.....	44,790	8.9		
April.....				
May.....	24,830	5.0		
June.....	27,358	5.5		
Total.....	498,995	100.0		

NEW ORLEANS, LA.

July.....	177,020	3.7	74,344	102,676
August.....	173,000	3.6	104,809	68,191
September.....	124,500	2.6	220,857	*96,357
October.....	206,000	4.3	144,114	61,886
November.....	184,600	3.8	84,203	100,397
December.....	876,000	18.1	491,072	384,928
January.....	1,209,000	25.0	801,776	407,224
February.....	842,000	17.4	983,559	*141,559
March.....	322,000	6.6	300,893	21,107
April.....	29,000	.6	130,270	*101,270
May.....	236,000	4.9	142,667	93,333
June.....	455,000	9.4	213,344	241,656
Total.....	4,834,120	100.0	3,691,908	1,142,212

NEW YORK, N. Y.

July.....	870,100	8.4		
August.....	490,688	4.7		
September.....	1,674,800	16.2		
October.....	385,900	3.7		
November.....	363,725	3.5		
December.....	1,976,625	19.1		
January.....	1,845,000	17.8		
February.....	1,467,000	14.1		
March.....	683,875	6.6		
April.....	101,375	1.0		
May.....	208,735	2.0		
June.....	300,375	2.9		
Total.....	10,368,198	100.0		

OMAHA, NEBR.

July.....	1,867,200	8.3	1,802,000	65,200
August.....	1,492,800	6.7	1,095,000	397,800
September.....	858,000	3.8	1,127,000	* 269,000
October.....	1,128,000	5.0	1,171,000	* 43,000
November.....	865,200	3.9	421,000	444,200
December.....	2,307,600	10.3	1,613,000	694,600
January.....	2,467,200	11.0	1,338,000	1,129,200
February.....	3,615,600	16.1	2,094,000	1,521,600
March.....	1,450,800	6.5	1,676,000	* 225,200
April.....	1,519,200	6.8	1,356,300	162,900
May.....	2,498,400	11.2	1,854,600	643,800
June.....	2,320,800	10.4	2,109,800	211,000
Total.....	22,390,800	100.0	17,657,700	4,733,100

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**CORN—Continued.**

PEORIA, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	860,886	4.8	425,782	435,104
August.....	1,292,121	7.2	746,089	546,032
September.....	864,073	4.8	487,123	376,950
October.....	1,103,464	6.2	680,492	422,972
November.....	1,870,231	10.4	1,298,216	572,015
December.....	1,944,158	10.8	1,631,978	312,180
January.....	2,848,535	15.9	2,085,829	762,706
February.....	2,496,383	13.9	1,688,592	807,791
March.....	1,492,568	8.3	1,312,600	179,968
April.....	1,049,695	5.9	413,268	636,427
May.....	1,008,006	5.6	600,983	407,023
June.....	1,109,846	6.2	985,116	124,730
Total.....	17,939,966	100.0	12,356,068	5,583,898

PHILADELPHIA, PA.

July.....	92,869	3.3		
August.....	108,975	3.9		
September.....	262,029	9.4		
October.....	126,520	4.6		
November.....	137,998	5.0		
December.....	489,683	17.7		
January.....	373,173	13.5		
February.....	585,289	21.1		
March.....	176,940	6.4		
April.....	118,414	4.3		
May.....	131,967	4.8		
June.....	166,122	6.0		
Total.....	2,769,979	100.0		

ST. LOUIS, MO.

July.....	2,034,100	7.6	1,557,865	476,235
August.....	2,063,375	7.7	1,277,930	785,445
September.....	1,075,165	4.0	867,910	207,255
October.....	1,665,780	6.2	808,120	857,660
November.....	1,194,975	4.5	616,370	578,605
December.....	2,311,930	8.6	1,202,600	1,109,330
January.....	4,753,200	17.8	2,291,570	2,461,630
February.....	3,408,000	12.7	3,261,340	146,660
March.....	1,995,930	7.4	1,366,570	629,360
April.....	1,919,450	7.2	1,094,240	825,210
May.....	1,935,810	7.2	1,308,270	627,540
June.....	2,346,970	9.1	1,430,410	916,560
Total.....	26,704,685	100.0	17,083,195	9,621,490

SAN FRANCISCO, CAL.

July.....	12,179	6.8	400	11,779
August.....	2,208	1.2	300	1,908
September.....	11,544	6.5	57	11,487
October.....	10,420	5.8	57	10,363
November.....	18,312	10.3	4,047	14,265
December.....	17,375	9.8	2,488	14,887
January.....	10,205	5.7		10,205
February.....	14,107	7.9	314	13,793
March.....	16,705	9.4	609	16,096
April.....	19,696	11.1	5,352	14,344
May.....	19,282	10.8	7,830	11,452
June.....	26,121	14.7	33,202	*7,081
Total.....	178,154	100.0	54,656	123,498

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## CORN—Continued.

## TOLEDO, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	200,000	4.8	151,300	48,700
August.....	303,500	7.4	117,200	186,300
September.....	200,300	4.8	77,000	123,300
October.....	238,000	5.8	91,700	146,300
November.....	321,900	7.8	103,900	218,000
December.....	474,000	11.5	196,200	277,800
January.....	594,000	14.4	421,000	173,000
February.....	483,500	11.7	268,300	215,200
March.....	581,600	14.1	240,400	341,200
April.....	230,600	5.6	251,700	* 21,100
May.....	207,900	5.0	174,200	33,700
June.....	291,400	7.1	74,400	217,000
Total.....	4,126,700	100.0	2,167,300	1,959,400

## WICHITA, KANS.

July.....	104,000	5.9	87,600	16,400
August.....	111,600	6.3	83,000	28,600
September.....	108,000	6.1	91,000	17,000
October.....	86,000	4.9	75,000	11,000
November.....	175,200	9.9	96,000	79,200
December.....	201,120	11.4	85,000	116,120
January.....	211,600	12.0	95,700	115,900
February.....	235,000	13.3	143,000	92,000
March.....	58,000	3.3	42,000	16,000
April.....	195,000	11.0	123,400	71,600
May.....	154,800	8.7	124,800	30,000
June.....	127,200	7.2	74,400	52,800
Total.....	1,767,520	100.0	1,120,900	646,620

## COTTON.

## ATLANTA, GA.

	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July (4 weeks).....	121	0.0	577	* 456
August (5 weeks).....	44	0.0	841	* 797
September (4 weeks).....	28,785	10.4	18,891	9,894
October (5 weeks).....	78,231	28.2	67,877	10,354
November (4 weeks).....	50,229	18.1	49,370	859
December (4 weeks).....	45,121	16.3	43,139	1,982
January (5 weeks).....	28,972	10.4	36,290	* 7,318
February (4 weeks).....	22,796	8.2	22,880	* 84
March (4 weeks).....	8,305	3.0	12,325	* 4,020
April (5 weeks).....	10,807	3.9	12,350	* 1,543
May (4 weeks).....	2,868	1.0	7,305	* 4,437
June (4 weeks).....	1,392	.5	2,534	* 1,142
Total.....	277,671	100.0	274,379	3,292

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

AUGUSTA, GA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July (4 weeks).....	1, 226	0.2	4, 182	* 2, 956
August (5 weeks).....	5, 843	1.1	6, 811	* 968
September (4 weeks).....	82, 820	15.1	56, 517	26, 303
October (5 weeks).....	144, 175	26.3	106, 231	37, 944
November (4 weeks).....	81, 584	14.9	70, 481	11, 103
December (4 weeks).....	81, 567	14.8	71, 420	10, 147
January (5 weeks).....	44, 953	8.2	44, 505	448
February (4 weeks).....	49, 037	8.9	62, 766	* 13, 729
March (4 weeks).....	24, 499	4.5	34, 710	* 10, 211
April (5 weeks).....	21, 481	3.9	33, 387	* 11, 906
May (4 weeks).....	9, 400	1.7	22, 527	* 13, 127
June (4 weeks).....	2, 334	.4	11, 540	* 9, 206
Total.....	548, 919	100.0	525, 077	23, 842

BALTIMORE, MD.<sup>1</sup>

July (4 weeks).....	916	0.7	4, 506	* 3, 590
August (5 weeks).....	912	.7	5, 471	* 4, 559
September (4 weeks).....	1, 572	1.3	14, 987	* 13, 415
October (5 weeks).....	12, 985	10.5	36, 609	* 23, 624
November (4 weeks).....	21, 591	17.4	30, 567	* 8, 976
December (4 weeks).....	21, 781	17.6	9, 783	11, 998
January (5 weeks).....	15, 975	12.9	5, 366	10, 609
February (4 weeks).....	17, 438	14.1	2, 059	15, 379
March (4 weeks).....	15, 838	12.8	5, 896	9, 942
April (5 weeks).....	6, 420	5.2	7, 053	* 633
May (4 weeks).....	7, 016	5.7	8, 198	* 1, 182
June (4 weeks).....	1, 424	1.1	3, 913	* 2, 489
Total.....	123, 868	100.0	134, 408	* 10, 540

BOSTON, MASS.<sup>1</sup>

July (4 weeks).....	274	0.4	123	151
August (5 weeks).....	336	.5	441	* 105
September (4 weeks).....	98	.2	6, 626	* 6, 528
October (5 weeks).....	4, 879	7.8	33, 318	* 28, 439
November (4 weeks).....	14, 369	22.8	14, 487	* 118
December (4 weeks).....	14, 947	23.7	32, 972	* 18, 025
January (5 weeks).....	6, 344	10.1	12, 832	* 6, 488
February (4 weeks).....	2, 058	3.3	25, 009	* 22, 951
March (4 weeks).....	6, 051	9.6	15, 138	* 9, 087
April (5 weeks).....	9, 213	14.6	23, 004	* 13, 791
May (4 weeks).....	3, 323	5.3	8, 071	* 4, 748
June (4 weeks).....	1, 083	1.7	2, 973	* 1, 890
Total.....	62, 975	100.0	174, 994	* 112, 019

## BRUNSWICK, GA.

July.....				
August (5 weeks).....	26, 750	6.2	5, 070	21, 680
September (4 weeks).....	40, 275	9.4	41, 135	* 860
October (5 weeks).....	64, 620	15.0	74, 776	* 10, 156
November (4 weeks).....	64, 050	14.9	45, 773	18, 277
December (4 weeks).....	73, 343	17.0	36, 508	36, 835
January (5 weeks).....	36, 240	8.4	61, 902	* 25, 662
February (4 weeks).....	65, 670	15.2	38, 398	27, 272
March (4 weeks).....	41, 372	9.6	39, 276	2, 096
April (5 weeks).....	11, 750	2.7	20, 638	* 8, 888
May (4 weeks).....	6, 663	1.6	14, 618	* 7, 955
June.....				
Total.....	430, 733	100.0	378, 094	52, 639

\* Excess of shipments over receipts.

<sup>1</sup> Returns for receipts apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

CHARLESTON, S. C.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	Bales.	Per cent.	Bales.	Bales.
July.....	11			11
August (5 weeks).....	1,437	0.3		1,437
September (4 weeks).....	65,498	15.8	19,203	46,235
October (5 weeks).....	85,748	20.7	60,945	24,803
November (4 weeks).....	85,375	20.6	45,651	39,724
December (4 weeks).....	62,837	15.2	45,170	14,667
January (5 weeks).....	26,989	6.5	20,196	6,793
February (4 weeks).....	47,874	11.6	26,229	21,645
March (4 weeks).....	23,346	5.6	22,445	901
April (5 weeks).....	11,233	2.7	3,400	7,833
May (4 weeks).....	2,873	.7	3,735	* 862
June (4 weeks).....	1,298	.3	600	698
Total.....	414,459	100.0	250,574	163,885

## CINCINNATI, OHIO.

July.....	1,629	0.6	1,166	463
August.....	1,543	.6	2,987	* 1,444
September.....	2,760	1.0	3,380	* 620
October.....	15,211	5.6	16,737	* 1,526
November.....	39,954	14.7	37,453	2,501
December.....	46,002	16.9	42,756	3,246
January.....	30,513	11.2	29,211	1,302
February.....	42,118	15.5	37,882	4,236
March.....	30,670	11.3	40,508	* 9,838
April.....	25,667	9.5	22,151	3,516
May.....	20,720	7.6	17,992	2,728
June.....	14,873	5.5	9,537	5,336
Total.....	271,660	100.0	261,760	9,900

## COLUMBUS, GA.

July (4 weeks).....	55	0.1	325	*270
August (5 weeks).....	930	1.1	1,105	*175
September (4 weeks).....	7,975	9.4	5,050	2,925
October (5 weeks).....	22,910	27.0	9,750	13,160
November (4 weeks).....	16,994	20.1	6,060	10,934
December (4 weeks).....	17,445	20.6	6,855	10,590
January (5 weeks).....	10,135	12.0	13,050	*2,915
February (4 weeks).....	4,072	4.8	12,595	*8,523
March (4 weeks).....	1,591	1.9	14,245	*12,654
April (5 weeks).....	1,548	1.8	8,630	*7,082
May (4 weeks).....	718	.8	4,500	*3,782
June (4 weeks).....	317	.4	950	*633
Total.....	84,690	100.0	83,115	1,575

## DALLAS, TEX.

July (4 weeks).....			600	*600
August (5 weeks).....				
September (4 weeks).....	16,262	16.5	10,262	6,000
October (5 weeks).....	26,000	26.3	24,500	1,500
November (4 weeks).....	21,741	22.0	20,741	1,000
December (4 weeks).....	12,800	13.0	15,300	*2,500
January (5 weeks).....	11,600	11.8	14,600	*3,000
February (4 weeks).....	6,000	6.1	6,500	*500
March (4 weeks).....	2,300	2.3	2,800	*500
April (5 weeks).....	1,800	1.8	2,500	*700
May (4 weeks).....	200	.2	1,500	*1,300
June (4 weeks).....				
Total.....	98,703	100.0	99,303	*600

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

## GALVESTON, TEX.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July (4 weeks).....	6,793	0.2	1,526	5,267
August (5 weeks).....	205,413	5.5	146,687	58,726
September (4 weeks).....	543,071	14.7	329,676	213,395
October (5 weeks).....	625,000	16.9	525,377	99,623
November (4 weeks).....	566,311	15.3	311,678	254,633
December (4 weeks).....	521,715	14.1	359,891	161,824
January (5 weeks).....	475,267	12.8	521,977	*46,710
February (4 weeks).....	349,234	9.4	273,707	75,527
March (4 weeks).....	190,640	5.1	283,757	*93,117
April (5 weeks).....	141,360	3.8	162,075	*20,715
May (4 weeks).....	59,910	1.5	111,780	*57,870
June (4 weeks).....	25,996	.7	30,941	*4,945
Total.....	3,704,710	100.0	3,059,072	645,638

## GREENVILLE, MISS.

July (4 weeks).....	7	.....	2,394	*2,387
August (5 weeks).....	130	0.3	992	*862
September (4 weeks).....	6,007	13.5	4,755	1,252
October (5 weeks).....	12,278	27.5	5,121	7,157
November (4 weeks).....	11,107	24.9	7,105	4,002
December (4 weeks).....	7,029	15.8	8,036	*1,007
January (5 weeks).....	3,915	8.8	12,043	*8,128
February (4 weeks).....	2,723	6.1	5,356	*2,633
March (4 weeks).....	947	2.1	4,836	*3,889
April (5 weeks).....	457	.9	1,971	*1,534
May (4 weeks).....	22	.....	13	*9
June (4 weeks).....	38	.1	116	*78
Total.....	44,640	100.0	52,738	*8,098

GREENWOOD, MISS.<sup>1</sup>

July (4 weeks).....		.....	1,800	*1,800
August (5 weeks).....		.....	2,200	*2,200
September (4 weeks).....	5,100	5.5	3,750	1,350
October (5 weeks).....	22,859	24.6	3,823	19,036
November (4 weeks).....	25,455	27.4	17,588	7,867
December (4 weeks).....	16,393	17.7	19,796	*3,403
January (5 weeks).....	11,290	12.2	19,940	*8,650
February (4 weeks).....	5,544	6.0	9,094	*3,550
March (4 weeks).....	4,850	5.2	7,550	*2,700
April (5 weeks).....	1,300	1.4	7,800	*6,500
May (4 weeks).....		.....	2,300	*2,300
June (4 weeks).....		.....	1,000	*1,000
Total.....	92,791	100.0	96,641	*3,850

## HELENA, ARK.

July (4 weeks).....	150	0.2	1,234	*1,084
August (5 weeks).....	146	.2	616	*470
September (4 weeks).....	1,101	1.5	191	910
October (5 weeks).....	22,530	31.9	9,386	13,144
November (4 weeks).....	17,578	24.9	13,385	4,193
December (4 weeks).....	9,587	13.6	13,400	*3,813
January (5 weeks).....	5,198	7.4	10,415	*5,217
February (4 weeks).....	7,767	11.0	10,020	*2,253
March (4 weeks).....	3,673	5.2	7,623	*3,950
April (5 weeks).....	1,699	2.4	6,306	*4,607
May (4 weeks).....	542	.8	685	*143
June (4 weeks).....	612	.9	334	278
Total.....	70,583	100.0	73,595	*3,012

\* Excess of shipments over receipts.

<sup>1</sup> Returns apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

HOUSTON, TEX.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July (4 weeks).....	4,587	0.1	9,131	* 4,544
August (5 weeks).....	261,977	8.0	238,744	23,233
September (4 weeks).....	492,405	15.1	446,726	45,679
October (5 weeks).....	620,674	19.0	578,469	42,205
November (4 weeks).....	482,102	14.8	438,115	43,987
December (4 weeks).....	439,634	13.5	421,146	18,488
January (5 weeks).....	420,642	12.9	427,835	* 7,193
February (4 weeks).....	264,228	8.1	328,485	* 64,257
March (4 weeks).....	140,462	4.3	163,105	* 22,643
April (5 weeks).....	103,245	3.2	133,074	* 29,829
May (4 weeks).....	22,666	.7	37,611	* 14,945
June (4 weeks).....	9,417	.3	24,717	* 15,300
Total.....	3,262,039	100.0	3,247,158	14,881

INDIANAPOLIS, IND.<sup>1</sup>

July.....			740	
August.....			140	
September.....	20	1.8	360	
October.....			1,560	
November.....	200	17.7	2,720	
December.....	132	11.7	4,160	
January.....	220	19.4	2,040	
February.....	100	8.8	2,360	
March.....	120	10.6	1,300	
April.....	80	7.1	1,120	
May.....	160	14.1	1,260	
June.....	100	8.8	2,000	
Total.....	1,132	100.0	19,760	

## JACKSONVILLE, FLA.

July.....	506	1.0		506
August.....	284	.5		284
September.....	1,332	2.6		1,332
October.....	10,354	20.2		10,354
November.....	10,856	21.2		10,856
December.....	10,181	19.9		10,181
January.....	9,869	19.2		9,869
February.....	4,786	9.3		4,786
March.....	1,645	3.2		1,645
April.....	805	1.6		805
May.....	627	1.2		627
June.....	31	.1		31
Total.....	51,276	100.0		51,276

## LITTLE ROCK, ARK

July.....	139	0.1	2,268	* 2,129
August.....	717	.3	2,148	* 1,431
September.....	2,035	1.0	1,315	720
October.....	38,875	18.3	18,652	20,223
November.....	59,782	28.2	139,204	* 79,422
December.....	47,684	22.5	43,449	4,235
January.....	18,420	8.7	28,354	* 9,934
February.....	25,971	12.2	27,558	* 1,587
March.....	8,781	4.1	19,510	* 10,729
April.....	5,187	2.4	10,680	* 5,493
May.....	3,820	1.8	7,349	* 3,529
June.....	742	.4	5,315	* 4,573
Total.....	212,153	100.0	305,802	* 93,649

\* Excess of shipments over receipts.

<sup>1</sup> Returns apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

LOUISVILLE, KY

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Bales.	Per cent.	Bales.	Bales.
July.....	24	0.2	44	* 20
August.....	55	.5	47	8
September.....	822	7.5	16	806
October.....	1,451	13.3	70	1,381
November.....	961	8.8	41	920
December.....	1,119	10.3	61	1,058
January.....	1,401	12.9	16	1,385
February.....	1,727	15.8	197	1,530
March.....	1,526	14.0	107	1,419
April.....	582	5.3	122	460
May.....	933	8.6	118	815
June.....	302	2.8	87	215
Total.....	10,903	100.0	926	9,977

## MEMPHIS TENN.

July (4 weeks).....	5,008	0.5	16,520	* 11,512
August (5 weeks).....	4,290	.4	8,616	* 4,326
September (4 weeks).....	11,381	1.2	6,146	5,195
October (5 weeks).....	197,379	20.5	100,633	96,746
November (4 weeks).....	227,451	23.7	179,664	47,787
December (4 weeks).....	184,374	19.2	149,320	35,054
January (5 weeks).....	87,524	9.1	134,493	* 46,969
February (4 weeks).....	89,842	9.3	133,732	* 43,890
March (4 weeks).....	64,089	6.7	94,795	* 30,706
April (5 weeks).....	42,167	4.4	82,492	* 40,325
May (4 weeks).....	27,031	2.8	42,954	* 15,923
June (4 weeks).....	21,016	2.2	27,629	* 6,613
Total.....	961,552	100.0	977,034	* 15,482

## MOBILE, ALA.

July (4 weeks).....	42	.....	144	* 102
August (5 weeks).....	700	0.2	21	679
September (4 weeks).....	27,214	7.2	3,600	* 23,614
October (5 weeks).....	76,494	20.3	36,486	40,008
November (4 weeks).....	57,733	15.4	35,954	21,779
December (4 weeks).....	70,441	18.7	27,678	42,763
January (5 weeks).....	58,749	15.6	71,968	* 13,219
February (4 weeks).....	44,232	11.8	36,368	7,864
March (4 weeks).....	17,650	4.7	47,499	* 29,849
April (5 weeks).....	13,860	3.7	25,922	* 12,062
May (4 weeks).....	5,766	1.5	8,361	* 2,595
June.....	3,500	.9	.....	3,500
Total.....	376,381	100.0	294,001	82,380

## MONTGOMERY, ALA.

July (4 weeks).....	305	0.2	554	* 249
August (5 weeks).....	2,709	1.4	1,872	837
September (4 weeks).....	38,098	19.3	23,073	15,025
October (5 weeks).....	57,129	28.9	31,709	25,420
November (4 weeks).....	27,845	14.1	19,959	8,486
December (4 weeks).....	27,802	14.1	24,251	3,551
January (5 weeks).....	15,608	7.9	30,913	* 15,305
February (4 weeks).....	12,915	6.5	36,752	* 23,837
March (4 weeks).....	4,210	2.1	10,975	* 6,765
April (5 weeks).....	7,163	3.6	9,327	* 2,164
May (4 weeks).....	1,723	.9	3,098	* 1,375
June (4 weeks).....	2,028	1.0	2,701	* 673
Total.....	197,535	100.0	194,584	2,951

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**COTTON**—Continued.  
NEW ORLEANS, LA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July (4 weeks).....	12,247	0.7	21,064	*8,817
August (5 weeks).....	26,571	1.6	22,117	4,454
September (4 weeks).....	52,832	3.2	35,535	17,297
October (5 weeks).....	198,982	11.9	122,518	76,464
November (4 weeks).....	312,614	18.8	196,290	116,324
December (4 weeks).....	292,315	17.5	188,722	103,593
January (5 weeks).....	247,750	14.9	297,430	*49,680
February (4 weeks).....	222,546	13.3	192,709	29,837
March (4 weeks).....	159,221	9.6	216,108	*56,887
April (5 weeks).....	78,753	4.7	178,846	*100,093
May (4 weeks).....	44,618	2.7	50,831	*6,213
June (4 weeks).....	17,930	1.1	38,842	*20,912
Total.....	1,666,379	100.0	1,561,012	105,367

NEW YORK, N. Y.<sup>1</sup>

July (4 weeks).....	324	4.5	26,405	*26,081
August (5 weeks).....	307	4.2	42,331	*42,024
September (4 weeks).....	362	5.0	80,932	*80,570
October (5 weeks).....	410	5.7	87,134	*86,724
November (4 weeks).....	1,378	19.1	73,786	*72,408
December (4 weeks).....	1,534	21.2	70,510	*68,976
January (5 weeks).....	568	7.9	76,652	*76,084
February (4 weeks).....	330	4.6	76,059	*75,729
March (4 weeks).....	1,021	14.1	55,934	*54,913
April (5 weeks).....	451	6.2	59,403	*58,952
May (4 weeks).....	394	5.5	20,825	*20,431
June (4 weeks).....	143	2.0	20,234	*20,091
Total.....	7,222	100.0	690,205	*682,983

NORFOLK, VA.

July (4 weeks).....	768	0.1	227	541
August (5 weeks).....	2,381	.3	60	2,321
September (4 weeks).....	52,269	6.8	.....	52,269
October (5 weeks).....	129,136	16.9	1,991	127,145
November (4 weeks).....	153,188	20.0	1,000	152,188
December (4 weeks).....	138,569	18.1	.....	138,569
January (5 weeks).....	73,145	9.5	3,855	69,290
February (4 weeks).....	77,649	10.1	8,846	68,803
March (4 weeks).....	49,286	6.4	326	48,960
April (5 weeks).....	59,448	7.8	887	58,561
May (4 weeks).....	21,698	2.8	2,173	19,525
June (4 weeks).....	8,862	1.2	2,154	6,708
Total.....	766,399	100.0	21,519	744,880

PARIS, TEX.

July (4 weeks).....	.....	.....	.....	.....
August (5 weeks).....	869	0.5	562	307
September (4 weeks).....	23,754	14.0	18,359	5,395
October (5 weeks).....	39,291	23.1	40,053	*762
November (4 weeks).....	29,917	17.6	27,690	2,227
December (4 weeks).....	29,732	17.5	29,423	309
January (5 weeks).....	28,788	17.0	30,379	*1,591
February (4 weeks).....	11,743	6.9	15,728	*3,985
March (4 weeks).....	3,270	1.9	4,131	*861
April (5 weeks).....	1,439	.9	1,921	*482
May (4 weeks).....	1,082	.6	1,514	*432
June (4 weeks).....	.....	.....	25	*25
Total.....	169,885	100.0	169,785	100

\* Excess of shipments over receipts.

<sup>1</sup> Returns for receipts apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

## PENSACOLA, FLA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	Bales.	Per cent.	Bales.	Bales.
July (4 weeks).....	1,228	0.6	1,228	.....
August (5 weeks).....	.....	.....	.....	.....
September (4 weeks).....	12,514	5.8	6,200	* 6,314
October (5 weeks).....	21,572	10.0	27,160	* 5,588
November (4 weeks).....	30,697	14.3	30,697	.....
December (4 weeks).....	25,360	11.8	25,110	250
January (5 weeks).....	39,141	18.2	39,141	.....
February (4 weeks).....	34,467	16.0	47,087	* 12,620
March (4 weeks).....	27,573	12.8	9,000	18,573
April (5 weeks).....	17,761	8.3	22,834	* 5,073
May (4 weeks).....	2,200	1.0	2,200	.....
June (4 weeks).....	2,678	1.2	2,678	.....
Total.....	215,191	100.0	213,335	1,856

## ' PHILADELPHIA, PA. '

July (4 weeks).....	150	6.2	300	* 150
August (5 weeks).....	.....	.....	770	* 770
September (4 weeks).....	.....	.....	2,497	* 2,497
October (5 weeks).....	.....	.....	8,336	* 8,336
November (4 weeks).....	.....	.....	5,938	* 5,938
December (4 weeks).....	.....	.....	14,668	* 14,668
January (5 weeks).....	.....	.....	14,571	* 14,571
February (4 weeks).....	154	6.4	9,963	* 9,809
March (4 weeks).....	747	31.1	5,372	* 4,625
April (5 weeks).....	1,301	54.2	9,509	* 8,208
May (4 weeks).....	50	2.1	5,445	* 5,395
June (4 weeks).....	.....	.....	2,201	* 2,201
Total.....	2,402	100.0	79,570	77,168

## PORT ARTHUR, TEX.

July.....	.....	.....	.....	.....
August.....	.....	.....	.....	.....
September (4 weeks).....	7,500	2.9	7,500	.....
October (5 weeks).....	9,820	3.8	16,522	* 6,702
November (4 weeks).....	44,828	17.5	32,363	12,465
December (4 weeks).....	45,245	17.7	34,042	11,203
January (5 weeks).....	36,604	14.3	21,000	15,604
February (4 weeks).....	32,837	12.8	47,183	* 14,346
March (4 weeks).....	42,005	16.4	11,273	30,732
April.....	30,683	12.0	21,825	8,858
May.....	1,971	.8	.....	1,971
June (4 weeks).....	4,676	1.8	4,356	320
Total.....	256,169	100.0	196,064	60,105

## ST. LOUIS, MO.

July.....	4,039	0.6	19,194	* 15,155
August.....	2,881	.5	13,851	* 10,970
September.....	5,279	.8	7,672	* 2,393
October.....	62,276	9.9	35,495	26,781
November.....	106,759	17.0	84,643	22,116
December.....	105,070	16.7	106,020	* 950
January.....	83,339	13.2	71,462	11,877
February.....	93,428	14.9	75,179	18,249
March.....	74,677	11.9	70,839	3,838
April.....	50,396	8.0	60,388	* 9,992
May.....	27,113	4.3	38,025	* 10,912
June.....	13,761	2.2	17,387	* 3,626
Total.....	629,018	100.0	600,155	28,863

\* Excess of shipments over receipts.

1 Returns for receipts apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## COTTON—Continued.

SAVANNAH, GA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July (4 weeks).....	3,951	0.2	7,503	* 3,552
August (5 weeks).....	36,147	1.5	10,964	25,183
September (4 weeks).....	367,850	15.3	135,244	232,606
October (5 weeks).....	521,114	21.7	414,959	106,155
November (4 weeks).....	368,377	15.3	212,204	156,173
December (4 weeks).....	308,453	12.8	177,454	130,999
January (5 weeks).....	261,252	10.9	243,552	17,700
February (4 weeks).....	241,757	10.1	239,841	1,916
March (4 weeks).....	139,422	5.8	114,121	25,301
April (5 weeks).....	94,910	3.9	148,376	* 53,466
May (4 weeks).....	46,608	1.9	48,939	* 2,331
June (4 weeks).....	14,382	.6	16,580	* 2,198
Total.....	2,404,223	100.0	1,769,737	634,486

## SHREVEPORT, LA.

July (4 weeks).....			119	* 119
August (5 weeks).....	647	0.5	2,716	* 2,069
September (4 weeks).....	18,835	13.3	7,649	11,186
October (5 weeks).....	37,992	26.8	24,555	13,437
November (4 weeks).....	25,714	18.2	19,383	6,331
December (4 weeks).....	24,338	17.2	20,203	4,135
January (5 weeks).....	14,236	10.1	21,821	* 7,585
February (4 weeks).....	12,203	8.6	18,515	* 6,312
March (4 weeks).....	3,927	2.8	15,531	* 11,604
April (5 weeks).....	2,210	1.6	6,488	* 4,278
May (4 weeks).....	925	.6	3,038	* 2,113
June (4 weeks).....	437	.3	2,057	* 1,620
Total.....	141,464	100.0	142,075	* 611

## TEXAS CITY, TEX.

July (4 weeks).....	398			398
August (5 weeks).....	12,683	2.1	11,554	1,129
September (4 weeks).....	23,923	3.9	350	23,573
October (5 weeks).....	146,289	24.1	141,513	4,776
November (4 weeks).....	143,714	23.7	92,374	51,340
December (4 weeks).....	104,531	17.2	75,840	28,691
January (5 weeks).....	93,388	15.4	148,934	* 55,546
February (4 weeks).....	57,600	9.5	71,835	* 14,235
March (4 weeks).....	15,082	2.5	34,787	* 19,705
April (5 weeks).....	8,916	1.5	19,647	* 10,731
May (4 weeks).....	677	.1	705	* 28
June.....				
Total.....	607,201	100.0	597,539	9,662

## WILMINGTON, N. C.

July.....	371	0.1		371
August (5 weeks).....	431	.1		431
September (4 weeks).....	54,194	10.1	23,204	30,990
October (5 weeks).....	114,274	21.3	110,119	4,155
November (4 weeks).....	108,308	20.1	109,511	* 1,203
December (4 weeks).....	80,182	14.9	70,857	9,325
January (5 weeks).....	54,282	10.1	64,215	* 9,933
February (4 weeks).....	49,890	9.3	44,815	5,075
March (4 weeks).....	48,386	9.0	40,851	7,535
April (5 weeks).....	22,411	4.2	19,896	2,515
May (4 weeks).....	3,375	.6	14,862	* 11,487
June (4 weeks).....	911	.2	4,096	* 3,185
Total.....	537,015	100.0	502,426	34,589

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## EGGS.

## BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Cases.</i>	<i>Per cent.</i>		
July.....	128,364	7.8		
August.....	118,686	7.2		
September.....	68,961	4.2		
October.....	53,157	3.2		
November.....	36,741	2.2		
December.....	32,375	2.0		
January.....	43,784	2.6		
February.....	58,573	3.5		
March.....	128,560	7.8		
April.....	296,461	17.9		
May.....	494,279	29.9		
June.....	193,976	11.7		
Total.....	1,653,917	100.0		

## CHICAGO, ILL.

			<i>Cases.</i>	<i>Cases.</i>
July.....	456,327	10.1	243,246	213,081
August.....	429,900	9.5	229,315	200,585
September.....	281,388	6.2	210,808	70,580
October.....	199,827	4.4	199,359	468
November.....	125,268	2.7	156,150	* 30,882
December.....	75,937	1.7	153,459	* 77,522
January.....	55,746	1.2	104,579	* 48,833
February.....	80,779	1.8	88,257	* 7,478
March.....	233,163	5.1	175,870	57,293
April.....	820,464	18.1	322,096	498,368
May.....	1,017,965	22.5	393,237	624,728
June.....	755,106	16.7	260,697	494,409
Total.....	4,531,870	100.0	2,537,073	1,994,797

## CINCINNATI, OHIO.

July.....	30,949	4.9	5,114	25,835
August.....	26,134	4.2	5,094	21,040
September.....	29,071	4.6	4,861	24,210
October.....	36,467	5.8	22,176	14,291
November.....	25,686	4.1	15,227	10,459
December.....	47,600	7.6	21,902	25,698
January.....	30,856	4.9	24,227	6,629
February.....	23,683	3.8	19,821	3,862
March.....	109,815	17.4	82,807	27,008
April.....	127,198	20.2	101,175	26,023
May.....	80,612	12.8	75,981	4,631
June.....	61,330	9.7	28,300	33,030
Total.....	629,401	100.0	406,685	222,716

## INDIANAPOLIS, IND.

July.....	4,168	1.6	4,750	* 582
August.....	1,685	.6	4,000	* 2,315
September.....	1,422	.5	4,500	* 3,078
October.....	16,746	6.4	5,500	11,246
November.....	11,000	4.2	6,500	4,500
December.....	30,300	11.5	2,500	27,800
January.....	7,900	3.0	3,750	4,150
February.....	5,400	2.1	3,100	2,300
March.....	20,600	7.8	5,000	15,600
April.....	75,400	28.7	7,500	67,900
May.....	88,240	33.6	9,750	78,490
June.....			24,750	* 24,750
Total.....	262,861	100.0	81,600	181,261

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## EGGS—Continued.

NEW YORK, N. Y.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	410,728	8.1		
August.....	334,178	6.6		
September.....	302,768	6.0		
October.....	248,442	4.9		
November.....	153,861	3.0		
December.....	175,462	3.5		
January.....	255,316	5.0		
February.....	367,755	7.3		
March.....	636,408	12.6		
April.....	775,904	15.3		
May.....	847,759	16.8		
June.....	550,058	10.9		
Total.....	5,058,639	100.0		

## PEORIA, ILL.

	<i>Dozens.</i>	<i>Per cent.</i>	<i>Dozens.</i>	<i>Dozens.</i>
July.....	126,000	9.1	252,000	* 126,000
August.....	98,000	7.1	168,000	* 70,000
September.....	42,000	3.0	56,000	* 14,000
October.....	28,000	2.0	56,000	* 28,000
November.....	98,000	7.1	98,000	
December.....	14,000	1.0	28,000	* 14,000
January.....			28,000	* 28,000
February.....				
March.....	28,000	2.0		28,000
April.....	224,000	16.1	252,000	* 28,000
May.....	364,000	26.3	15,424	348,576
June.....	364,000	26.3	518,000	* 154,000
Total.....	1,386,000	100.0	1,471,424	* 85,424

## ST. LOUIS, MO.

	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	101,131	6.6	59,157	41,974
August.....	63,745	4.2	47,591	16,154
September.....	60,944	4.0	38,498	22,446
October.....	54,927	3.6	34,857	20,070
November.....	42,006	2.7	29,390	12,616
December.....	41,449	2.7	37,708	3,741
January.....	72,347	4.7	44,337	28,010
February.....	144,652	9.5	72,527	72,125
March.....	249,572	16.3	168,345	81,227
April.....	270,910	17.8	210,418	60,492
May.....	237,454	15.5	97,084	140,370
June.....	189,690	12.4	127,478	62,212
Total.....	1,528,827	100.0	967,390	561,437

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## EGGS—Continued.

SAN FRANCISCO, CAL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Dozens.</i>	<i>Per cent.</i>		
July.....	1,557,840	8.1		
August.....	1,699,700	8.8		
September.....	1,127,040	5.9		
October.....	975,130	5.1		
November.....	934,460	4.9		
December.....	967,776	5.0		
January.....	1,220,580	6.4		
February.....	2,076,450	10.8		
March.....	2,158,510	11.2		
April.....	2,347,210	12.2		
May.....	2,378,010	12.4		
June.....	1,777,070	9.2		
Total.....	19,217,776	100.0		

## FLAXSEED.

CHICAGO, ILL.

	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	56,800	3.7	15,850	40,950
August.....	72,900	4.7	2,400	70,500
September.....	54,600	3.6	16,000	38,600
October.....	122,100	7.9	52,000	70,100
November.....	121,600	7.9	12,600	109,000
December.....	144,400	9.4	6,400	138,000
January.....	175,900	11.4	63,000	112,900
February.....	103,900	6.8	83,700	20,200
March.....	199,200	13.0	76,900	122,300
April.....	129,400	8.4	44,200	85,200
May.....	227,400	14.8	16,300	211,100
June.....	129,400	8.4	19,200	110,200
Total.....	1,537,600	100.0	408,550	1,129,050

## CLEVELAND, OHIO.

July.....				
August.....				
September.....				
October.....	50,000	40.7		50,000
November.....	48,000	39.1		48,000
December.....				
January.....	412	.3		412
February.....	1,752	1.4		1,752
March.....	2,390	2.0		2,390
April.....	8,762	7.1	5,191	3,571
May.....	5,000	4.1		5,000
June.....	6,444	5.3	1,614	4,830
Total.....	122,760	100.0	6,805	115,955

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## FLAXSEED—Continued

DULUTH, MINN.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	37,709	0.5	1,000	30,709
August.....	14,341	.2	148,481	* 134,140
September.....	281,417	3.6	119,672	161,745
October.....	1,104,985	14.3	979,510	125,475
November.....	3,015,418	39.0	2,318,068	697,350
December.....	1,258,979	16.3	1,476,518	* 217,539
January.....	688,922	8.9	650,866	38,056
February.....	312,733	4.0	644,834	* 332,101
March.....	137,211	1.8	208,442	* 71,231
April.....	166,857	2.2	183,913	* 17,056
May.....	461,198	6.0	592,337	* 131,139
June.....	246,518	3.2	381,173	* 134,655
Total.....	7,726,288	100.0	7,704,814	21,474

## KANSAS CITY, MO.

July.....	1,000	6.7	.....	1,000
August.....	7,000	46.7	2,000	5,000
September.....	3,000	20.0	.....	3,000
October.....	.....	.....	.....	.....
November.....	.....	.....	.....	.....
December.....	2,000	13.3	.....	2,000
January.....	1,000	6.6	.....	1,000
February.....	.....	.....	.....	.....
March.....	.....	.....	.....	.....
April.....	1,000	6.7	3,000	* 2,000
May.....	.....	.....	.....	.....
June.....	.....	.....	.....	.....
Total.....	15,000	100.0	5,000	10,000

## MILWAUKEE, WIS.

July.....	1,200	0.3	.....	1,200
August.....	.....	.....	.....	.....
September.....	2,400	.5	.....	2,400
October.....	33,600	7.7	.....	33,600
November.....	54,000	12.4	.....	54,000
December.....	46,800	10.8	.....	46,800
January.....	66,000	15.2	6,135	59,865
February.....	72,000	16.6	25,783	46,217
March.....	31,425	7.2	11,768	19,657
April.....	61,200	14.1	5,800	55,400
May.....	36,200	8.3	3,830	32,370
June.....	30,000	6.9	.....	30,000
Total.....	434,825	100.0	53,321	381,504

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**FLAXSEED—Continued.**

MINNEAPOLIS, MINN.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	132,600	1.6	3,700	128,900
August.....	191,250	2.3	8,590	182,660
September.....	563,940	6.9	106,010	457,930
October.....	1,211,930	14.7	223,040	988,890
November.....	1,569,810	19.0	314,560	1,255,250
December.....	1,716,120	20.8	212,040	1,504,080
January.....	530,790	6.4	141,710	389,080
February.....	459,300	5.6	141,700	317,600
March.....	397,460	4.8	110,040	287,420
April.....	468,040	5.7	111,030	357,010
May.....	570,920	6.9	139,040	431,880
June.....	439,520	5.3	110,270	329,250
Total.....	8,251,680	100.0	1,621,730	6,629,950

NEW YORK, N. Y.

July.....	31,720	0.6		
August.....	217,383	4.1		
September.....	240,094	4.5		
October.....	37,910	.7		
November.....	281,826	5.3		
December.....	494,187	9.2		
January.....	251,491	4.7		
February.....	623,187	11.7		
March.....	930,127	17.4		
April.....	612,504	11.5		
May.....	586,078	11.0		
June.....	1,032,886	19.3		
Total.....	5,339,393	100.0		

**GRAIN, TOTAL.**

CHICAGO, ILL.

July.....	25,619,500	10.0	18,551,550	7,067,950
August.....	30,238,100	11.9	19,977,300	10,260,800
September.....	26,166,050	10.3	19,183,250	6,982,800
October.....	22,372,950	8.8	16,433,850	5,939,100
November.....	18,341,050	7.2	10,129,600	8,211,450
December.....	18,727,450	7.3	11,720,100	7,007,350
January.....	20,765,150	8.1	11,889,500	8,875,650
February.....	25,432,850	10.0	12,936,750	12,496,100
March.....	20,235,150	7.9	13,791,450	6,443,700
April.....	11,114,950	4.4	16,124,700	* 5,009,750
May.....	16,036,350	6.3	16,868,450	* 832,100
June.....	19,864,050	7.8	17,538,150	2,325,900
Total.....	254,913,600	100.0	185,144,650	69,768,950

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## GRAIN, TOTAL—Continued.

CINCINNATI, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	1,754,676	9.1	954,669	800,007
August.....	1,992,233	10.4	1,317,482	674,751
September.....	1,662,101	8.6	1,083,807	578,294
October.....	1,457,333	7.6	562,060	895,273
November.....	1,356,318	7.1	431,995	924,323
December.....	1,623,398	8.4	1,270,256	353,142
January.....	1,901,898	9.9	1,204,666	697,202
February.....	2,158,036	11.2	1,400,299	757,737
March.....	1,522,557	7.9	1,098,644	423,913
April.....	1,489,751	7.7	878,607	611,144
May.....	1,037,527	5.4	436,879	600,648
June.....	1,280,819	6.7	456,996	823,823
Total.....	19,236,647	100.0	11,096,390	8,140,257

## CLEVELAND, OHIO.

July.....	1,133,453	8.2	358,328	775,125
August.....	1,336,511	9.6	433,427	903,084
September.....	1,314,886	9.5	333,350	981,536
October.....	1,063,358	7.6	250,723	812,635
November.....	1,019,742	7.3	428,237	591,505
December.....	603,933	4.3	258,245	345,688
January.....	822,567	5.9	384,460	438,107
February.....	870,194	6.3	415,709	454,485
March.....	963,298	6.9	510,385	452,913
April.....	576,627	4.1	157,052	389,575
May.....	1,933,666	13.9	447,406	1,486,260
June.....	2,274,574	16.4	396,841	1,877,733
Total.....	13,912,809	100.0	4,404,163	9,508,646

## DETROIT, MICH.

July.....	1,014,135	10.4	93,190	920,945
August.....	1,101,877	11.2	216,614	885,263
September.....	921,646	9.4	234,860	686,786
October.....	1,109,520	11.3	151,208	958,312
November.....	916,300	9.4	225,439	690,861
December.....	1,115,873	11.4	408,829	707,044
January.....	822,079	8.4	365,962	456,117
February.....	1,005,398	10.3	456,551	548,847
March.....	554,313	5.7	346,665	207,648
April.....	291,158	3.0	191,911	99,247
May.....	543,240	5.5	112,211	431,029
June.....	387,950	4.0	72,990	314,960
Total.....	9,783,489	100.0	2,876,430	6,907,059

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## GRAIN, TOTAL—Continued.

DULUTH, MINN.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	1,188,382	2.8	2,858,603	*1,670,221
August.....	1,654,902	3.9	1,417,066	237,836
September.....	9,652,563	22.9	5,344,720	4,308,843
October.....	12,566,315	29.8	6,679,748	5,886,567
November.....	7,573,345	17.9	8,726,643	*1,153,298
December.....	3,364,044	8.0	2,758,950	605,094
January.....	917,308	2.2	284,952	632,356
February.....	918,791	2.2	159,683	759,108
March.....	1,347,943	3.2	534,096	813,847
April.....	1,094,740	2.6	1,498,578	*403,838
May.....	813,136	1.9	6,263,124	*5,449,988
June.....	1,110,480	2.6	1,484,220	*373,740
Total.....	42,202,949	100.0	38,010,383	4,192,566

## INDIANAPOLIS, IND.

July.....	2,337,500	10.7	420,000	1,917,500
August.....	1,977,500	9.1	622,000	1,355,500
September.....	1,525,000	7.0	508,500	1,016,500
October.....	1,451,000	6.7	424,500	1,026,500
November.....	1,665,000	7.6	793,500	871,500
December.....	1,582,000	7.3	583,000	999,000
January.....	3,489,500	16.0	1,041,500	2,448,000
February.....	1,945,200	8.9	966,700	978,500
March.....	1,980,000	9.1	840,600	1,139,400
April.....	1,043,900	4.8	881,100	162,800
May.....	1,205,700	5.5	893,500	312,200
June.....	1,596,900	7.3	881,700	715,200
Total.....	21,799,200	100.0	8,856,600	12,942,600

## KANSAS CITY, MO.

July.....	9,266,100	17.6	2,770,900	6,495,200
August.....	5,937,900	11.3	3,295,100	2,642,800
September.....	4,551,100	8.6	4,415,400	135,700
October.....	4,147,700	7.9	2,821,000	1,326,700
November.....	2,757,400	5.2	2,431,600	325,800
December.....	3,564,600	6.8	2,552,900	1,011,700
January.....	4,536,100	8.6	3,493,000	1,043,100
February.....	7,030,850	13.3	4,145,450	2,885,400
March.....	2,302,050	4.4	4,006,500	*1,704,450
April.....	2,930,550	5.6	3,765,250	*834,700
May.....	3,252,600	6.2	3,354,950	*102,350
June.....	2,355,400	4.5	2,534,200	*178,800
Total.....	52,632,350	100.0	39,586,250	13,046,100

## LITTLE ROCK, ARK.

July.....	553,000	10.0	103,000	450,000
August.....	233,000	4.2	106,000	127,000
September.....	195,000	3.5	92,000	103,000
October.....	255,000	4.6	95,000	160,000
November.....	376,000	6.8	144,000	232,000
December.....	494,000	9.0	148,000	346,000
January.....	517,000	9.4	229,000	288,000
February.....	605,000	11.0	189,000	416,000
March.....	455,000	8.3	159,000	296,000
April.....	637,000	11.6	245,000	392,000
May.....	579,000	10.5	194,000	385,000
June.....	614,000	11.1	200,000	414,000
Total.....	5,513,000	100.0	1,904,000	3,609,000

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

GRAIN, TOTAL—Continued.  
LOUISVILLE, KY.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	2,288,795	10.2	746,895	1,541,900
August.....	1,951,055	8.7	797,285	1,153,770
September.....	1,514,584	6.7	628,277	886,307
October.....	2,062,740	9.1	656,731	1,406,009
November.....	1,560,580	6.9	668,367	892,213
December.....	1,671,704	7.4	724,320	947,384
January.....	2,313,215	10.3	1,086,525	1,226,690
February.....	2,618,635	11.6	1,234,300	1,384,335
March.....	2,235,460	9.9	1,155,610	1,079,850
April.....	1,847,335	8.2	940,930	906,405
May.....	1,594,465	7.1	660,574	933,891
June.....	884,215	3.9	490,308	393,907
Total.....	22,542,783	100.0	9,790,122	12,752,661

## MILWAUKEE, WIS.

July.....	1,727,996	3.9	1,665,134	62,862
August.....	4,830,510	10.9	1,131,279	3,699,231
September.....	6,107,180	13.8	3,028,128	3,079,052
October.....	5,017,830	11.4	3,329,056	1,688,774
November.....	3,658,760	8.3	2,055,319	1,603,441
December.....	4,258,610	9.6	2,744,564	1,514,046
January.....	2,774,050	6.3	1,649,864	1,124,186
February.....	4,933,470	11.2	2,182,726	2,750,744
March.....	2,898,380	6.6	2,153,390	744,990
April.....	2,028,010	4.6	1,754,724	273,286
May.....	2,793,370	6.3	1,471,234	1,322,136
June.....	3,133,260	7.1	1,488,853	1,646,407
Total.....	44,163,426	100.0	24,654,289	19,509,137

## MINNEAPOLIS, MINN.

July.....	6,386,280	4.7	3,446,390	2,939,890
August.....	9,676,550	7.2	3,440,470	6,236,080
September.....	21,061,070	15.6	5,751,080	15,309,990
October.....	19,207,710	14.2	6,039,010	13,168,700
November.....	18,035,720	13.3	5,376,200	12,659,520
December.....	14,670,430	10.8	6,049,810	8,620,620
January.....	11,038,620	8.2	4,149,780	6,888,840
February.....	11,210,370	8.3	4,994,210	6,216,160
March.....	8,798,570	6.5	4,878,260	3,920,310
April.....	5,518,820	4.1	4,898,400	620,420
May.....	4,986,970	3.7	3,805,280	1,181,690
June.....	4,577,100	3.4	3,459,690	1,117,410
Total.....	135,168,210	100.0	56,288,580	78,879,630

## OMAHA, NEBR.

July.....	4,945,000	10.2	2,967,500	1,977,500
August.....	3,992,000	8.2	2,549,000	1,443,000
September.....	4,430,500	9.1	2,849,000	1,581,500
October.....	4,408,000	9.0	2,842,000	1,566,000
November.....	2,803,600	5.8	1,699,500	1,104,100
December.....	4,266,700	8.8	2,793,100	1,473,600
January.....	4,251,500	8.7	2,929,000	1,322,500
February.....	5,918,200	12.2	3,802,000	2,116,200
March.....	2,833,400	5.9	3,063,000	*179,600
April.....	3,377,700	6.9	3,173,800	197,900
May.....	4,212,200	8.6	4,407,400	*195,200
June.....	3,196,800	6.6	3,404,200	*207,400
Total.....	48,685,600	100.0	36,485,500	12,200,100

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## GRAIN, TOTAL—Continued.

## PEORIA, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	2,637,368	9.0	2,058,343	579,025
August.....	2,656,736	9.1	1,429,805	1,226,931
September.....	1,740,989	5.9	1,361,795	379,194
October.....	1,934,164	6.6	1,587,453	346,711
November.....	2,431,531	8.3	1,847,111	584,420
December.....	2,766,151	9.5	2,351,781	414,370
January.....	3,516,170	12.0	3,083,383	432,787
February.....	3,325,028	11.4	2,552,704	772,324
March.....	2,553,269	8.7	2,707,716	*154,447
April.....	1,889,540	6.5	1,372,486	517,054
May.....	1,853,981	6.3	1,487,321	366,660
June.....	1,964,149	6.7	1,902,999	61,150
Total.....	29,269,076	100.0	23,742,897	5,526,179

## ST. LOUIS, MO.

July.....	9,494,885	15.3	3,854,925	5,639,960
August.....	5,714,528	9.2	4,201,820	1,512,708
September.....	4,490,031	7.2	3,014,720	1,475,311
October.....	5,393,340	8.7	2,956,440	2,436,900
November.....	3,256,730	5.3	2,341,700	915,030
December.....	4,502,766	7.3	3,117,070	1,385,696
January.....	6,599,000	10.7	4,058,765	2,540,235
February.....	5,985,500	9.7	5,694,090	291,410
March.....	4,113,223	6.6	3,572,920	540,303
April.....	4,073,996	6.6	3,258,290	815,706
May.....	4,129,990	6.7	2,998,200	1,131,790
June.....	4,180,849	6.7	2,945,180	1,235,669
Total.....	61,934,838	100.0	42,014,120	19,920,718

## TOLEDO, OHIO.

July.....	3,150,500	21.6	1,018,600	2,131,900
August.....	2,853,500	19.5	1,868,800	984,700
September.....	1,242,300	8.5	1,062,400	179,900
October.....	907,000	6.2	410,000	497,000
November.....	783,900	5.4	478,200	305,700
December.....	728,500	5.0	486,300	242,200
January.....	960,000	6.6	651,500	308,500
February.....	1,015,000	7.0	600,400	414,600
March.....	895,100	6.1	587,800	307,300
April.....	360,100	2.5	623,000	*262,900
May.....	1,140,200	7.8	836,800	303,400
June.....	548,900	3.8	361,900	187,000
Total.....	14,585,000	100.0	8,985,700	5,599,300

## WICHITA, KANS.

July.....	1,586,600	15.9	996,400	590,200
August.....	1,403,800	14.1	765,200	638,600
September.....	1,231,600	12.4	540,600	691,000
October.....	1,084,900	10.9	742,800	342,100
November.....	675,500	6.8	278,000	397,500
December.....	565,320	5.7	184,000	381,320
January.....	713,600	7.1	345,300	368,300
February.....	858,000	8.6	418,000	440,000
March.....	286,000	2.9	148,000	138,000
April.....	520,000	5.2	319,900	200,100
May.....	634,800	6.4	385,200	249,600
June.....	397,200	4.0	164,400	232,800
Total.....	9,957,320	100.0	5,287,800	4,669,520

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## GRASS SEED, OTHER THAN CLOVER OR TIMOTHY.

CHICAGO, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	166,700	1.4	309,400	* 142,700
August.....	1,050,600	9.2	1,472,200	* 421,600
September.....	1,632,100	14.4	1,630,900	1,200
October.....	1,266,400	11.1	1,145,500	120,900
November.....	1,319,900	11.6	772,000	547,900
December.....	987,800	8.7	919,200	68,600
January.....	805,100	7.1	1,647,900	* 842,800
February.....	1,065,100	9.4	3,008,200	* 1,943,100
March.....	1,142,700	10.0	6,488,000	* 5,345,300
April.....	949,500	8.4	3,601,300	* 2,651,500
May.....	529,800	4.7	2,954,700	* 2,424,900
June.....	455,000	4.0	1,687,800	* 1,232,800
Total.....	11,370,700	100.0	25,637,100	* 14,266,400

## GRASS AND CLOVER SEED.

LOUISVILLE, KY.

July.....	996,795	8.3	508,067	488,728
August.....	1,269,820	10.6	586,525	683,295
September.....	1,247,480	10.4	1,019,325	228,155
October.....	679,765	5.7	533,250	146,515
November.....	296,430	2.5	102,205	194,225
December.....	199,250	1.7	92,665	106,585
January.....	1,361,995	11.3	826,939	535,056
February.....	2,190,755	18.3	1,689,703	501,052
March.....	1,288,878	10.7	1,598,820	* 309,942
April.....	819,945	6.8	974,530	* 154,585
May.....	1,308,865	10.9	806,855	502,010
June.....	338,135	2.8	656,715	* 318,580
Total.....	11,998,113	100.0	9,395,599	2,602,514

## HAY.

BOSTON, MASS.

	<i>Cars.</i>	<i>Per cent.</i>		<i>Cars.</i>
July.....	1,495	9.0		
August.....	1,304	7.9		
September.....	1,321	8.0		
October.....	1,451	8.8		
November.....	1,582	9.6		
December.....	1,570	9.5		
January.....	1,188	7.2		
February.....	1,370	8.3		
March.....	1,288	7.8		
April.....	1,127	6.8		
May.....	1,297	7.9		
June.....	1,521	9.2		
Total.....	16,514	100.0		

\* Excess of shipments over receipts; data apparently incomplete.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HAY—Continued.

CHICAGO, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Short tons.</i>	<i>Per cent.</i>	<i>Short tons.</i>	<i>Short tons.</i>
July.....	11,955	3.4	925	11,030
August.....	28,428	8.1	685	27,743
September.....	21,578	6.1	1,619	19,959
October.....	27,497	7.8	1,071	26,426
November.....	26,218	7.4	1,477	24,741
December.....	33,049	9.4	3,094	29,955
January.....	32,039	9.1	3,055	28,984
February.....	36,002	10.2	6,179	29,823
March.....	36,314	10.3	10,104	26,210
April.....	32,594	9.3	11,456	21,138
May.....	32,468	9.2	5,346	27,122
June.....	34,182	9.7	4,129	30,053
Total.....	352,324	100.0	49,140	303,184

## CINCINNATI, OHIO.

July.....	8,624	5.6	3,890	4,734
August.....	11,064	7.1	5,996	5,068
September.....	15,467	10.0	6,568	8,899
October.....	13,507	8.7	3,797	9,710
November.....	11,378	7.4	4,051	7,327
December.....	13,008	8.4	12,564	444
January.....	13,866	9.0	9,228	4,638
February.....	16,094	10.4	12,315	3,779
March.....	12,351	8.0	9,575	2,776
April.....	14,412	9.3	9,727	4,685
May.....	17,049	11.0	8,159	8,890
June.....	7,892	5.1	6,376	1,516
Total.....	154,712	100.0	92,246	62,466

## INDIANAPOLIS, IND.

	<i>Cars.</i>	<i>Per cent.</i>	<i>Cars.</i>	<i>Cars.</i>
July.....	134	7.0	30	104
August.....	172	9.0	35	137
September.....	193	10.2	18	175
October.....	144	7.6	21	123
November.....	170	8.9	27	143
December.....	150	7.9	17	133
January.....	143	7.5	12	131
February.....	162	8.5	11	151
March.....	154	8.1	19	135
April.....	185	9.7	24	161
May.....	161	8.5	22	139
June.....	135	7.1	31	104
Total.....	1,903	100.0	267	1,636

## KANSAS CITY, MO.

	<i>Short tons.</i>	<i>Per cent.</i>	<i>Short tons.</i>	<i>Short tons.</i>
July.....	21,060	6.8	5,700	15,360
August.....	40,704	13.2	9,828	30,876
September.....	31,740	10.3	5,700	26,040
October.....	31,224	10.1	5,268	25,956
November.....	25,368	8.2	5,832	19,536
December.....	29,280	9.5	7,944	21,336
January.....	30,828	10.0	10,356	20,472
February.....	25,176	8.1	10,572	14,604
March.....	24,828	8.0	7,608	17,220
April.....	18,492	6.0	9,780	8,712
May.....	17,712	5.7	9,660	8,052
June.....	12,528	4.1	5,580	6,948
Total.....	308,940	100.0	93,828	215,112

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HAY—Continued.

## LITTLE ROCK, ARK.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	Cars.	Per cent.	Cars.	Cars.
July.....	110	7.6	21	89
August.....	211	14.5	26	185
September.....	166	11.4	18	148
October.....	89	6.1	22	67
November.....	45	3.1	14	31
December.....	33	2.3	11	22
January.....	133	9.5	46	92
February.....	186	12.8	64	122
March.....	100	6.9	41	59
April.....	116	8.0	60	56
May.....	125	8.6	36	89
June.....	133	9.2	66	67
Total.....	1,452	100.0	425	1,027

## LOUISVILLE, KY.

	Short tons.	Per cent.	Short tons.	Short tons.
July.....	1,467	4.0	99	1,368
August.....	2,954	8.0	139	2,815
September.....	4,345	11.8	317	4,028
October.....	5,073	13.8	260	4,813
November.....	2,634	7.1	201	2,433
December.....	2,301	6.2	88	2,213
January.....	2,938	8.0	70	2,868
February.....	3,535	9.6	88	3,447
March.....	2,912	7.9	286	2,626
April.....	3,714	10.1	159	3,555
May.....	3,061	8.3	115	2,946
June.....	1,988	5.2	111	1,877
Total.....	36,872	100.0	1,933	34,939

## MILWAUKEE, WIS.

July.....	1,318	3.3		
August.....	2,785	7.0		
September.....	1,946	4.9		
October.....	3,115	7.8		
November.....	4,020	10.1		
December.....	4,556	11.4		
January.....	3,919	9.8		
February.....	3,959	9.9		
March.....	3,766	9.4		
April.....	3,112	7.8		
May.....	3,833	9.6		
June.....	3,600	9.0		
Total.....	39,934	100.0		

## NEW YORK, N. Y.

July.....	25,967	7.7		
August.....	29,881	8.8		
September.....	32,216	9.5		
October.....	34,373	10.1		
November.....	34,265	10.1		
December.....	23,800	7.0		
January.....	25,240	7.5		
February.....	23,020	6.8		
March.....	28,490	8.4		
April.....	21,130	6.2		
May.....	26,628	7.9		
June.....	33,850	10.0		
Total.....	338,860	100.0		

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HAY—Continued.

## PEORIA, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Short tons.</i>	<i>Per cent.</i>	<i>Short tons.</i>	<i>Short tons.</i>
July.....	2,610	6.6	645	1,965
August.....	6,370	16.2	1,661	4,709
September.....	5,094	13.0	1,590	3,504
October.....	3,330	8.5	1,174	2,156
November.....	1,960	5.0	473	1,487
December.....	2,736	7.0	1,054	1,682
January.....	2,720	6.9	1,069	1,651
February.....	3,111	7.9	2,436	675
March.....	2,930	7.5	1,826	1,104
April.....	2,500	6.4	2,263	237
May.....	3,800	9.7	1,625	2,175
June.....	2,090	5.3	1,038	1,052
Total.....	39,251	100.0	16,854	22,397

## ST. LOUIS, MO.

July.....	18,100	7.0	6,885	11,215
August.....	33,298	12.8	16,800	16,498
September.....	19,686	7.6	11,685	8,001
October.....	23,435	9.0	10,670	12,765
November.....	15,948	6.1	9,355	6,593
December.....	25,520	9.8	13,055	12,465
January.....	18,225	7.0	13,960	4,265
February.....	26,745	10.3	17,025	9,720
March.....	18,305	7.1	15,835	2,470
April.....	24,280	9.4	11,212	13,068
May.....	19,015	7.3	10,000	9,015
June.....	17,085	6.6	7,340	9,745
Total.....	259,642	100.0	143,822	115,820

## SAN FRANCISCO, CAL.

July.....	14,804	10.1		
August.....	20,565	14.0		
September.....	19,836	13.5		
October.....	11,962	8.1		
November.....	11,864	8.1		
December.....	10,356	7.0		
January.....	9,119	6.2		
February.....	8,563	5.8		
March.....	11,234	7.6		
April.....	9,220	6.2		
May.....	9,976	7.4		
June.....	8,909	6.0		
Total.....	146,408	100.0		

## SEATTLE, WASH. (By water).

July.....			11,144	
August.....			558	
September.....			9,503	
October.....			383	
November.....			2,172	
December.....			3,680	
January.....			3,546	
February.....	100	15.8	2,890	
March.....			1,645	
April.....			2,084	
May.....			566	
June.....	532	84.2	1,523	
Total.....	632	100.0	39,754	

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HOGS.

## BALTIMORE, MD.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Quantity.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	11,239	1.3		
August.....	23,944	2.9		
September.....	64,225	7.7		
October.....	81,716	9.8		
November.....	86,529	10.4		
December.....	87,772	10.6		
January.....	90,542	10.9		
February.....	80,319	9.7		
March.....	86,907	10.5		
April.....	76,046	9.2		
May.....	75,209	9.0		
June.....	66,108	8.0		
Total.....	830,556	100.0		

## BOSTON, MASS.

July (4 weeks).....	11,453	1.0		
August (4 weeks).....	11,056	1.0		
September (5 weeks).....	89,151	7.7		
October (4 weeks).....	74,765	6.4		
November (4 weeks).....	116,429	10.0		
December (5 weeks).....	171,566	14.8		
January (4 weeks).....	140,047	12.1		
February (4 weeks).....	126,992	10.9		
March (5 weeks).....	117,616	10.1		
April (4 weeks).....	79,071	6.8		
May (4 weeks).....	99,448	8.6		
June (5 weeks).....	123,412	10.6		
Total.....	1,161,006	100.0		

## CHICAGO, ILL.

July.....	536,052	6.5	122,685	413,367
August.....	505,210	6.4	121,136	384,074
September.....	460,684	5.9	66,774	393,910
October.....	604,069	7.7	118,981	485,088
November.....	728,023	9.3	75,382	649,641
December.....	716,133	9.1	133,078	583,055
January.....	936,272	11.9	156,536	779,736
February.....	872,354	11.1	256,343	616,006
March.....	689,300	8.8	232,057	457,243
April.....	584,320	7.4	144,036	440,284
May.....	656,197	8.3	141,538	514,659
June.....	570,379	7.3	78,402	491,977
Total.....	7,858,993	100.0	1,649,953	6,209,040

## CINCINNATI, OHIO.

July.....	77,661	6.1	28,467	49,194
August.....	77,963	6.2	33,928	44,035
September.....	77,779	6.1	30,945	46,834
October.....	109,553	8.7	46,026	63,527
November.....	138,549	11.0	67,491	71,058
December.....	132,379	10.5	57,590	74,989
January.....	151,867	12.0	75,912	75,955
February.....	106,468	8.4	45,744	60,724
March.....	95,710	7.6	52,718	42,992
April.....	110,311	8.7	38,388	71,923
May.....	95,804	7.7	40,176	55,628
June.....	88,546	7.0	39,221	49,325
Total.....	1,262,790	100.0	556,606	706,184

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HOGS—Continued.

## CLEVELAND, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	43,017	7.6	2,776	40,241
August.....	59,680	10.6	6,428	53,252
September.....	30,099	5.4	4,419	25,680
October.....	55,433	9.9	3,969	51,464
November.....	61,703	11.0	8,057	53,646
December.....	54,928	9.8	4,106	50,822
January.....	42,913	7.6	13,688	29,225
February.....	42,622	7.6	12,287	30,335
March.....	46,912	8.3	14,123	32,789
April.....	32,950	5.9	3,250	29,700
May.....	45,189	8.0	11,612	33,577
June.....	46,927	8.3	9,439	37,488
Total.....	562,373	100.0	94,154	468,219

## DENVER, COLO.

July.....	18,354	7.7	1,996	16,358
August.....	15,984	6.7	1,662	14,322
September.....	13,817	5.8	1,096	12,721
October.....	15,220	6.4	1,272	13,948
November.....	16,447	6.9	408	16,039
December.....	14,440	6.1	278	14,362
January.....	28,002	11.7	281	27,721
February.....	27,139	11.4	448	26,691
March.....	21,383	9.0	527	20,856
April.....	27,696	11.6	1,105	26,591
May.....	21,850	9.1	719	21,131
June.....	18,270	7.6	203	18,067
Total.....	238,802	100.0	9,995	228,807

## FORT WORTH, TEX.

July.....	41,633	9.8	2,379	39,254
August.....	33,335	7.9	3,809	29,526
September.....	37,037	8.7	2,236	34,801
October.....	40,236	9.5	3,678	36,558
November.....	48,350	11.4	2,800	45,550
December.....	50,760	12.0	1,290	49,470
January.....	51,120	12.1	1,488	49,632
February.....	29,184	6.9	2,242	26,942
March.....	24,751	5.8	2,861	21,890
April.....	28,870	6.8	2,002	26,868
May.....	24,225	5.7	2,314	21,911
June.....	14,177	3.4	2,177	12,000
Total.....	423,678	100.0	29,276	394,402

## INDIANAPOLIS, IND.

July.....	157,959	7.8	65,326	92,633
August.....	146,871	7.3	58,440	88,431
September.....	145,380	7.2	44,361	101,019
October.....	212,654	10.5	75,622	137,032
November.....	286,341	14.2	109,262	177,079
December.....	247,500	12.2	92,288	155,212
January.....	226,788	11.2	82,344	144,444
February.....	133,275	6.6	51,144	82,131
March.....	87,599	4.3	42,080	45,519
April.....	88,089	4.3	45,353	42,736
May.....	128,516	6.4	53,426	75,090
June.....	162,351	8.0	58,678	103,673
Total.....	2,023,323	100.0	778,324	1,244,999

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HOGS—Continued.

## KANSAS CITY, MO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	232,806	8.1	22,544	210,262
August.....	138,500	4.9	22,158	116,342
September.....	182,871	6.4	14,503	168,368
October.....	249,995	8.7	15,316	234,679
November.....	331,791	11.6	3,786	328,005
December.....	280,599	9.8	3,138	277,461
January.....	353,223	12.3	3,967	349,256
February.....	241,307	8.4	3,647	237,660
March.....	199,610	7.0	9,668	189,942
April.....	207,572	7.3	14,527	193,045
May.....	233,360	8.2	8,876	224,484
June.....	208,999	7.3	5,311	203,688
Total.....	2,860,633	100.0	127,441	2,733,192

## LOUISVILLE, KY.

July.....	34,136	4.3	17,457	16,679
August.....	35,888	4.5	24,886	11,002
September.....	51,845	6.5	38,823	13,022
October.....	59,929	7.5	41,525	18,404
November.....	97,621	12.3	77,873	19,748
December.....	92,834	11.7	72,801	20,033
January.....	100,475	12.6	83,446	17,029
February.....	68,493	8.6	55,146	13,347
March.....	75,198	9.5	58,794	16,404
April.....	59,155	7.4	48,788	10,367
May.....	69,999	8.8	52,820	17,179
June.....	50,028	6.3	38,640	11,388
Total.....	795,601	100.0	610,999	184,602

## MILWAUKEE, WIS.

July.....	55,132	5.0	3,629	51,503
August.....	50,050	4.6	487	49,563
September.....	52,781	4.8	1,867	50,914
October.....	61,772	5.7	10,050	51,722
November.....	111,169	10.2	15,387	95,782
December.....	129,856	11.9	2,409	127,447
January.....	127,133	11.7	14,386	112,747
February.....	97,815	9.0	3,517	94,298
March.....	110,976	10.2	4,969	106,007
April.....	66,715	6.1	4,496	62,219
May.....	107,468	9.8	4,649	102,819
June.....	120,112	11.0	3,450	116,662
Total.....	1,090,979	100.0	69,296	1,021,683

## NEW YORK, N. Y.

July (4 weeks).....	41,132	2.4		
August (4 weeks).....	50,396	3.0		
September (5 weeks).....	130,990	7.8		
October (4 weeks).....	150,740	8.9		
November (4 weeks).....	156,681	9.3		
December (5 weeks).....	203,591	12.1		
January (4 weeks).....	180,070	10.7		
February (4 weeks).....	158,641	9.4		
March (5 weeks).....	208,138	12.3		
April (4 weeks).....	142,839	8.5		
May (4 weeks).....	123,731	7.3		
June (5 weeks).....	139,177	8.3		
Total.....	1,686,126	100.0		

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HOGS—Continued.

## OMAHA, NEBR.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	213, 188	7. 6	28, 195	184, 993
August.....	161, 265	5. 7	33, 604	127, 661
September.....	118, 240	4. 2	3, 556	115, 284
October.....	107, 840	3. 8	2, 820	105, 020
November.....	151, 903	5. 4	3, 210	148, 693
December.....	213, 958	7. 6	17, 164	196, 794
January.....	330, 148	11. 8	34, 261	295, 887
February.....	359, 032	12. 8	53, 213	305, 819
March.....	285, 800	10. 2	68, 292	217, 508
April.....	285, 135	10. 2	48, 169	236, 966
May.....	303, 311	10. 8	30, 187	273, 124
June.....	279, 158	9. 9	33, 623	245, 535
Total.....	2, 809, 578	100. 0	356, 294	2, 453, 284

## PEORIA, ILL.

July.....	38, 370	8. 6	24, 530	13, 840
August.....	45, 870	10. 3	38, 606	7, 264
September.....	30, 630	6. 9	18, 817	11, 813
October.....	27, 932	6. 3	16, 260	11, 672
November.....	28, 196	6. 4	16, 580	11, 616
December.....	32, 190	7. 3	22, 390	9, 800
January.....	42, 877	9. 7	34, 030	8, 847
February.....	48, 707	11. 0	46, 510	2, 197
March.....	38, 628	8. 7	36, 840	1, 788
April.....	29, 903	6. 7	30, 560	* 657
May.....	39, 060	8. 8	29, 630	9, 430
June.....	41, 264	9. 3	33, 550	7, 714
Total.....	443, 627	100. 0	348, 303	95, 324

## PHILADELPHIA, PA.

July (4 weeks).....	13, 507	5. 6		
August (4 weeks).....	14, 957	6. 2		
September (5 weeks).....	19, 584	8. 1		
October (4 weeks).....	18, 763	7. 7		
November (4 weeks).....	18, 867	7. 8		
December (5 weeks).....	22, 665	9. 4		
January (4 weeks).....	22, 134	9. 1		
February (4 weeks).....	20, 937	8. 6		
March (5 weeks).....	27, 964	11. 6		
April (4 weeks).....	19, 372	8. 0		
May (4 weeks).....	20, 309	8. 4		
June (5 weeks).....	23, 030	9. 5		
Total.....	242, 089	100. 0		

## PORTLAND, OREG.

July.....	4, 460	4. 8	5, 251	* 791
August.....	6, 248	6. 9	5, 617	631
September.....	7, 448	8. 0	8, 078	* 630
October.....	9, 202	9. 8	8, 181	1, 021
November.....	8, 663	9. 2	9, 020	* 357
December.....	9, 115	9. 7	9, 690	* 575
January.....	9, 768	10. 4	9, 014	754
February.....	8, 399	9. 0	8, 929	* 530
March.....	9, 094	9. 7	7, 989	1, 105
April.....	6, 178	6. 6	6, 710	* 532
May.....	8, 086	8. 6		8, 086
June.....	6, 855	7. 3	7, 365	* 510
Total.....	93, 516	100. 0	85, 844	7, 672

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HOGS—Continued.

## ST. JOSEPH, MO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	169,541	8.2	7,282	162,259
August.....	112,203	5.4	11,145	101,058
September.....	108,094	5.2	1,482	106,612
October.....	133,514	6.5	1,987	131,527
November.....	194,479	9.4	1,395	193,084
December.....	210,490	10.1	4,524	205,966
January.....	235,586	11.4	5,667	229,919
February.....	194,751	9.4	17,403	177,348
March.....	194,970	9.4	35,069	159,901
April.....	162,927	7.9	9,578	153,349
May.....	177,460	8.6	20,529	156,931
June.....	176,349	8.5	18,660	157,689
Total.....	2,070,364	100.0	134,721	1,935,643

## ST. LOUIS, MO.

July.....	294,432	8.4	84,884	209,548
August.....	238,486	6.8	63,272	175,214
September.....	270,980	7.8	58,496	212,484
October.....	323,558	9.3	50,458	273,100
November.....	393,237	11.3	44,143	349,094
December.....	308,975	8.9	81,996	226,979
January.....	388,700	11.1	107,704	280,996
February.....	261,784	7.6	78,049	183,735
March.....	272,253	7.8	94,684	177,569
April.....	240,124	6.9	65,735	174,389
May.....	250,587	7.1	61,085	189,492
June.....	243,702	7.0	41,881	201,821
Total.....	3,486,818	100.0	832,397	2,654,421

## ST. PAUL, MINN.

July.....	49,044	5.0	11,767	37,277
August.....	36,834	3.8	10,019	26,815
September.....	30,754	3.1	6,548	24,206
October.....	72,209	7.3	17,812	54,397
November.....	114,667	11.7	26,471	88,196
December.....	192,214	10.4	25,105	77,109
January.....	144,946	14.7	36,139	108,807
February.....	91,715	9.3	23,067	68,648
March.....	87,049	8.8	20,818	66,231
April.....	79,147	8.0	17,847	61,300
May.....	93,791	9.5	19,911	73,880
June.....	82,694	8.4	17,879	64,815
Total.....	985,064	100.0	233,383	751,681

## SIOUX CITY, IOWA.

July.....	122,056	7.3	31,421	90,635
August.....	93,441	5.6	36,383	57,058
September.....	88,009	5.3	25,953	62,056
October.....	76,200	4.6	17,440	58,760
November.....	100,548	6.1	21,781	78,767
December.....	124,925	7.5	29,315	95,610
January.....	176,760	10.6	41,710	135,050
February.....	184,986	11.1	51,518	133,468
March.....	147,146	8.8	50,693	96,453
April.....	147,692	8.8	43,569	104,123
May.....	199,030	11.9	68,057	130,973
June.....	207,018	12.4	81,985	125,033
Total.....	1,667,811	100.0	499,825	1,167,986



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**HOGS—Continued.**

**WICHITA, KANS.**

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	34,647	7.7	2,419	32,228
August.....	20,835	4.6	837	19,998
September.....	38,740	8.6	686	38,054
October.....	62,510	13.8	1,071	61,439
November.....	66,591	14.7	.....	66,591
December.....	43,512	9.6	178	43,334
January.....	44,524	9.8	2	44,522
February.....	28,239	6.2	86	28,153
March.....	24,069	5.3	86	23,983
April.....	28,071	6.2	251	27,820
May.....	33,417	7.4	8	33,409
June.....	27,706	6.1	373	27,333
Total.....	452,861	100.0	5,997	446,864

**HONEY.**

**SAN FRANCISCO, CAL.**

	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	2,578	.....	.....	.....
August.....	9,437	.....	.....	.....
September.....	2,593	.....	.....	.....
October.....	2,355	.....	.....	.....
November.....	2,561	.....	.....	.....
December.....	949	.....	.....	.....
January.....	632	.....	.....	.....
February.....	516	.....	.....	.....
March.....	423	.....	.....	.....
April.....	1,733	.....	.....	.....
May.....	67	.....	.....	.....
June.....	362	.....	.....	.....
Total.....	.....	.....	.....	.....

**HOPS.**

**CHICAGO, ILL.**

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	111,500	1.4	222,100	* 110,600
August.....	275,300	3.3	288,500	* 13,200
September.....	708,000	8.6	276,800	431,200
October.....	1,135,100	13.8	676,300	458,800
November.....	2,694,400	32.6	1,662,900	1,031,500
December.....	1,652,200	20.0	1,551,800	100,400
January.....	764,200	9.3	534,800	229,400
February.....	416,000	5.0	425,200	* 9,200
March.....	144,700	1.8	192,200	* 47,500
April.....	141,500	1.7	108,900	32,600
May.....	152,000	1.8	103,500	48,500
June.....	60,400	.7	11,600	48,800
Total.....	8,255,300	100.0	6,054,600	2,200,700

<sup>1</sup> Cans.

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HOPS—Continued.

NEW YORK, N. Y.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July.....	1,816	2.3		
August.....	2,519	3.2		
September.....	2,373	3.0		
October.....	6,027	7.6		
November.....	19,333	24.5		
December.....	12,175	15.4		
January.....	15,020	19.0		
February.....	5,166	6.5		
March.....	6,236	7.9		
April.....	4,559	5.8		
May.....	2,336	2.9		
June.....	1,472	1.9		
Total.....	79,032	100.0		

## SAN FRANCISCO, CAL.

July.....	119	0.7		
August.....	2,424	13.2		
September.....	5,015	27.4		
October.....	3,474	19.0		
November.....	3,226	17.6		
December.....	390	2.1		
January.....	472	2.6		
February.....	260	1.4		
March.....	2,479	13.5		
April.....	217	1.2		
May.....	6	( <sup>1</sup> )		
June.....	240	1.3		
Total.....	18,322	100.0		

## HORSES AND MULES.

BALTIMORE, MD.

	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	174	3.5		
August.....	255	5.2		
September.....	204	4.1		
October.....	574	11.7		
November.....	318	6.5		
December.....	325	6.6		
January.....	708	14.4		
February.....	808	16.4		
March.....	625	12.7		
April.....	489	9.9		
May.....	220	4.5		
June.....	220	4.5		
Total.....	4,920	100.0		

## BOSTON, MASS.

July (4 weeks).....	1,813	7.6		
August (4 weeks).....	1,714	7.1		
September (5 weeks).....	2,203	9.2		
October (4 weeks).....	1,748	7.3		
November (4 weeks).....	1,620	6.8		
December (5 weeks).....	1,983	8.3		
January (4 weeks).....	1,625	6.8		
February (4 weeks).....	1,675	7.0		
March (5 weeks).....	2,625	11.0		
April (4 weeks).....	2,265	9.4		
May (4 weeks).....	2,255	9.4		
June (5 weeks).....	2,410	10.1		
Total.....	23,936	100.0		

<sup>1</sup> Less than 0.05 per cent.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HORSES AND MULES—Continued.

## CHICAGO, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	7,167	7.3	5,223	1,944
August.....	6,543	6.7	5,690	853
September.....	6,785	6.9	5,697	1,088
October.....	6,884	7.0	5,312	1,572
November.....	4,576	4.7	4,072	504
December.....	4,541	4.7	3,700	841
January.....	8,685	8.9	7,233	1,452
February.....	12,023	12.3	11,237	786
March.....	13,370	13.7	11,925	1,445
April.....	11,873	12.1	9,942	1,931
May.....	8,347	8.5	7,648	699
June.....	7,045	7.2	6,215	830
Total.....	97,839	100.0	83,894	13,945

## CINCINNATI, OHIO.

July.....	746	3.7	500	246
August.....	1,766	8.8	1,113	653
September.....	2,768	13.8	2,020	748
October.....	2,049	10.2	1,579	470
November.....	1,040	5.2	1,059	* 19
December.....	1,709	8.5	1,174	535
January.....	1,212	6.0	879	333
February.....	1,836	9.1	1,206	630
March.....	1,446	7.2	1,548	*102
April.....	2,922	14.6	1,893	1,029
May.....	1,896	7.0	1,085	311
June.....	1,187	5.9	699	578
Total.....	20,077	100.0	14,665	5,412

## CLEVELAND, OHIO.

July.....	1,192	1.4	854	338
August.....	1,399	1.7	1,640	* 241
September.....	1,149	1.3	544	605
October.....	1,441	1.7	454	987
November.....	1,321	1.6	1,005	316
December.....	1,007	1.1	947	60
January.....	1,426	1.7	1,096	330
February.....	11,934	14.1	1,107	10,827
March.....	9,003	10.6	1,062	7,941
April.....	7,029	8.3	8,266	*1,237
May.....	6,145	7.3	864	5,281
June.....	41,682	49.2	3,259	38,423
Total.....	84,728	100.0	21,098	63,630

## DENVER, COLO.

July.....	1,572	10.7	1,504	68
August.....	1,667	11.3	1,158	509
September.....	2,371	16.1	1,875	496
October.....	1,306	8.9	787	519
November.....	953	6.5	652	301
December.....	304	2.0	283	21
January.....	1,109	7.5	617	492
February.....	1,323	9.0	555	768
March.....	1,238	8.4	826	412
April.....	1,187	8.0	750	437
May.....	816	5.5	589	227
June.....	903	6.1	566	337
Total.....	14,749	100.0	10,162	4,587

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HORSES AND MULES—Continued.

## FORT WORTH, TEX.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	1,337	3.8	1,391	* 54
August.....	2,691	7.6	2,419	272
September.....	4,222	12.0	3,955	267
October.....	4,754	13.5	4,916	* 162
November.....	3,119	8.8	3,219	* 100
December.....	2,981	8.4	2,589	392
January.....	4,096	11.6	4,584	* 488
February.....	4,992	14.2	4,150	842
March.....	2,567	7.3	3,835	* 1,268
April.....	1,997	5.7	1,470	527
May.....	1,612	4.6	1,596	16
June.....	874	2.5	1,063	* 189
Total.....	35,242	100.0	35,187	55

## INDIANAPOLIS, IND.

July.....	1,189	6.7	1,037	152
August.....	1,561	8.8	1,233	328
September.....	1,709	9.6	1,474	235
October.....	1,408	7.9	1,361	47
November.....	825	4.6	761	64
December.....	644	3.6	578	66
January.....	2,045	11.5	2,002	43
February.....	2,172	12.1	1,909	263
March.....	2,046	11.5	1,872	174
April.....	1,838	10.3	1,642	196
May.....	1,560	8.8	1,359	201
June.....	823	4.6	737	86
Total.....	17,820	100.0	15,965	1,855

## KANSAS CITY, MO.

July.....	2,599	3.2	2,459	140
August.....	6,540	8.1	5,092	1,448
September.....	7,498	9.3	7,302	196
October.....	8,368	10.3	7,892	476
November.....	6,428	7.9	5,682	746
December.....	4,795	5.9	4,752	43
January.....	8,044	9.9	7,882	162
February.....	12,161	15.0	10,206	1,955
March.....	9,474	11.7	9,426	48
April.....	7,398	9.1	6,578	820
May.....	5,119	6.3	4,381	738
June.....	2,630	3.3	2,309	321
Total.....	81,054	100.0	73,961	7,093

## OMAHA, NEBR.

July.....	2,768	8.7	2,069	699
August.....	3,047	9.5	3,335	* 288
September.....	4,538	14.2	4,294	244
October.....	3,167	9.9	2,710	457
November.....	1,323	4.1	1,317	6
December.....	691	2.2	661	30
January.....	2,137	6.7	1,675	462
February.....	3,635	11.4	3,239	396
March.....	3,206	10.0	3,169	37
April.....	2,786	8.7	2,252	534
May.....	2,153	6.7	2,251	* 98
June.....	2,512	7.9	2,467	45
Total.....	31,963	100.0	29,439	2,524

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HORSES AND MULES—Continued.

## PORTLAND, OREG.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	300	13.1	301	* 1
August.....	133	5.8	132	1
September.....	120	5.2	117	3
October.....	77	3.4	78	* 1
November.....	301	13.1	301	.....
December.....	155	6.8	158	* 3
January.....	232	10.1	232	.....
February.....	238	10.4	237	1
March.....	150	6.6	151	* 1
April.....	309	13.5	304	5
May.....	177	7.7	.....	177
June.....	99	4.3	94	5
Total.....	2,291	100.0	2,105	186

## ST. JOSEPH, MO.

July.....	1,863	4.4	1,830	33
August.....	2,865	6.8	2,724	141
September.....	5,022	12.0	4,854	168
October.....	4,784	11.4	4,541	243
November.....	2,526	6.0	2,631	* 105
December.....	1,908	4.5	1,726	182
January.....	4,711	11.2	4,730	* 19
February.....	5,832	13.9	5,415	417
March.....	4,515	10.8	4,533	* 18
April.....	3,982	9.5	4,102	* 120
May.....	2,266	5.4	2,013	253
June.....	1,720	4.1	1,780	* 60
Total.....	41,994	100.0	40,879	1,115

## ST. LOUIS, MO.

July.....	7,642	4.4	7,570	72
August.....	15,358	8.8	11,557	3,801
September.....	18,410	10.5	17,522	888
October.....	18,207	10.5	15,299	2,998
November.....	10,576	6.1	10,541	* 35
December.....	9,600	5.5	10,157	* 557
January.....	19,946	11.4	17,635	2,311
February.....	25,836	14.8	22,843	2,993
March.....	16,672	9.6	19,121	* 2,449
April.....	16,682	9.6	15,020	1,662
May.....	7,974	4.6	8,107	* 133
June.....	7,333	4.2	6,460	873
Total.....	174,326	100.0	161,832	12,494

## ST. PAUL, MINN.

July.....	1,269	16.9	1,177	92
August.....	1,230	16.4	1,142	88
September.....	943	12.6	834	109
October.....	647	8.6	572	75
November.....	246	3.3	229	17
December.....	190	2.5	136	54
January.....	426	5.6	389	37
February.....	750	10.0	579	171
March.....	771	10.3	686	85
April.....	497	6.6	425	72
May.....	295	3.9	185	110
June.....	248	3.3	187	61
Total.....	7,512	100.0	6,541	971

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## HORSES AND MULES—Continued.

## SIOUX CITY, IOWA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	2,145	13.1	1,709	436
August.....	2,764	16.9	2,045	719
September.....	2,537	15.5	2,219	318
October.....	1,784	10.9	1,632	152
November.....	786	4.8	791	* 5
December.....	559	3.4	427	132
January.....	878	5.3	652	226
February.....	1,273	7.8	1,080	193
March.....	1,533	9.3	1,412	121
April.....	767	4.7	756	11
May.....	622	3.8	584	38
June.....	737	4.5	631	106
Total.....	16,385	100.0	13,938	2,447

## WICHITA, KANS.

July.....	342	7.8	290	52
August.....	355	7.6	193	142
September.....	585	13.3	442	143
October.....	190	4.3	149	41
November.....	232	5.3	208	24
December.....	135	3.1	125	10
January.....	296	6.7	293	3
February.....	615	14.0	595	20
March.....	601	13.6	502	99
April.....	441	10.0	311	130
May.....	336	7.6	334	2
June.....	297	6.7	232	65
Total.....	4,405	100.0	3,674	731

## LEMONS.

## CINCINNATI, OHIO.

	Boxes.	Per cent.	Boxes.	Boxes.
July.....	17,193	19.5	4,165	13,028
August.....	12,153	13.8	3,759	8,394
September.....	2,551	2.9	2,025	526
October.....	2,436	2.8	942	1,494
November.....	3,989	4.5	1,330	2,659
December.....	6,561	7.4	3,411	3,150
January.....	2,027	2.3	1,248	779
February.....	1,924	2.2	775	1,149
March.....	9,537	10.8	2,172	7,365
April.....	14,935	17.0	2,891	12,067
May.....	5,211	5.9	2,259	2,952
June.....	9,585	10.9	4,698	4,887
Total.....	88,125	100.0	29,675	58,450

## NEW YORK, N. Y.

July.....	5,890	7.2	.....	.....
August.....	5,312	6.5	.....	.....
September.....	4,332	5.3	.....	.....
October.....	7,668	9.3	.....	.....
November.....	17,107	20.8	.....	.....
December.....	28,668	34.9	.....	.....
January.....	7,024	8.6	.....	.....
February.....	838	1.0	.....	.....
March.....	483	.6	.....	.....
April.....	230	.3	.....	.....
May.....	1,207	1.5	.....	.....
June.....	3,315	4.0	.....	.....
Total.....	82,074	100.0	.....	.....

\* Excess of shipments over rates.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS.

## BALTIMORE, MD.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July .....	243,155	6.1	.....	.....
August .....	937,831	23.4	.....	.....
September .....	283,987	7.1	.....	.....
October .....	45,581	1.1	.....	.....
November .....	48,294	1.2	.....	.....
December .....	118,765	3.0	.....	.....
January .....	156,645	3.9	.....	.....
February .....	188,404	4.7	.....	.....
March .....	270,909	6.8	.....	.....
April .....	114,115	2.9	.....	.....
May .....	722,543	18.0	.....	.....
June .....	874,906	21.8	.....	.....
Total .....	4,005,135	100.0	.....	.....

## BOSTON, MASS.

July .....	317,560	6.9	.....	.....
August .....	442,423	9.7	.....	.....
September .....	308,309	6.7	.....	.....
October .....	417,822	9.1	.....	.....
November .....	342,707	7.5	.....	.....
December .....	386,487	8.4	.....	.....
January .....	372,252	8.1	.....	.....
February .....	289,486	6.3	.....	.....
March .....	436,015	9.5	.....	.....
April .....	451,166	9.9	.....	.....
May .....	327,014	7.2	.....	.....
June .....	488,623	10.7	.....	.....
Total .....	4,579,864	100.0	.....	.....

## CHICAGO, ILL.

July .....	6,945,100	7.8	7,821,500	* 876,400
August .....	13,317,600	15.0	6,731,000	6,586,600
September .....	8,308,600	9.4	5,062,600	3,246,000
October .....	9,206,000	10.4	5,550,400	3,655,600
November .....	5,438,000	6.1	4,250,200	1,187,800
December .....	6,256,300	7.1	4,708,400	1,547,900
January .....	5,241,600	5.9	4,561,500	680,100
February .....	7,063,500	8.0	4,955,100	2,108,400
March .....	7,442,400	8.4	6,964,200	478,200
April .....	6,145,800	6.9	7,471,600	* 1,325,800
May .....	7,376,400	8.3	6,657,100	719,300
June .....	5,979,300	6.7	7,106,700	* 1,127,400
Total .....	878,20,600	100.0	71,840,300	16,880,300

## CINCINNATI, OHIO.

July .....	623,386	10.5	248,173	375,213
August .....	877,750	14.8	548,288	329,462
September .....	707,374	11.9	539,440	167,934
October .....	523,634	8.8	261,220	262,414
November .....	435,220	7.3	123,935	311,285
December .....	377,470	6.4	359,654	17,816
January .....	306,250	5.2	195,750	110,500
February .....	517,206	8.7	300,063	217,143
March .....	493,024	8.3	291,716	201,308
April .....	477,186	8.0	223,762	253,424
May .....	294,100	4.9	113,673	180,427
June .....	309,099	5.2	79,353	229,746
Total .....	5,941,699	100.0	3,285,027	2,656,672

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS—Continued.

## CLEVELAND, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	732,510	8.8	128,237	604,273
August.....	671,480	8.1	168,510	502,970
September.....	961,284	11.6	123,988	837,296
October.....	644,443	7.8	125,513	518,930
November.....	497,369	6.0	164,128	333,241
December.....	387,789	4.6	126,649	261,140
January.....	243,682	2.9	212,993	30,689
February.....	438,582	5.3	219,618	218,964
March.....	443,972	5.4	312,618	131,354
April.....	390,841	4.7	48,482	342,359
May.....	1,396,980	16.9	289,614	1,107,366
June.....	1,477,116	17.9	244,176	1,232,940
Total.....	8,286,048	100.0	2,164,526	6,121,522

## DETROIT, MICH.

July.....	473,863	15.1	1,500	472,363
August.....	415,467	13.3	73,240	342,227
September.....	247,275	7.9	23,505	223,770
October.....	331,203	10.6	17,512	313,691
November.....	163,691	5.2	10,565	153,126
December.....	231,335	7.4	9,652	221,683
January.....	261,675	8.3	60,137	201,538
February.....	245,933	7.8	49,842	196,091
March.....	188,206	6.0	45,174	143,032
April.....	139,608	4.5	30,077	109,531
May.....	244,500	7.8	22,780	221,720
June.....	191,950	6.1	17,570	174,380
Total.....	3,134,706	100.0	361,554	2,773,152

## DULUTH, MINN.

July.....	134,056	2.9	178,054	*43,998
August.....	89,249	2.0	121,973	*32,724
September.....	316,881	6.9	63,007	253,874
October.....	1,014,401	22.1	604,041	410,360
November.....	710,649	15.5	858,152	*147,503
December.....	893,749	19.5	195,071	698,678
January.....	214,551	4.7	71,698	142,853
February.....	313,688	6.8	46,855	266,833
March.....	514,090	11.2	384,146	129,944
April.....	257,257	5.6	1,047,559	*790,302
May.....	52,821	1.2	1,306,283	*253,462
June.....	72,709	1.6	116,028	*43,319
Total.....	4,584,101	100.0	4,992,867	*408,766

## INDIANAPOLIS, IND.

July.....	640,500	12.3	87,000	553,500
August.....	667,500	12.9	207,000	460,500
September.....	459,000	8.8	103,500	355,500
October.....	453,000	8.7	103,500	349,500
November.....	450,000	8.7	121,500	328,500
December.....	348,000	6.7	48,000	300,000
January.....	433,500	8.3	51,300	382,200
February.....	456,000	8.8	165,500	290,500
March.....	468,000	9.0	201,000	267,000
April.....	252,000	4.9	277,500	*25,500
May.....	244,500	4.7	220,500	24,000
June.....	322,500	6.2	256,500	66,000
Total.....	5,194,500	100.0	1,842,800	3,351,700

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS—Continued.

## KANSAS CITY, MO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	807,500	12.4	265,200	542,300
August.....	588,200	9.1	328,100	260,100
September.....	691,900	10.6	640,900	51,000
October.....	525,300	8.1	462,400	62,900
November.....	486,200	7.5	345,100	141,100
December.....	510,000	7.8	350,000	160,000
January.....	510,000	7.8	588,200	* 78,200
February.....	714,000	11.0	578,000	136,000
March.....	510,000	7.8	586,500	* 76,500
April.....	469,200	7.2	477,700	* 8,500
May.....	409,700	6.3	321,300	88,400
June.....	283,900	4.4	265,200	18,700
Total.....	6,505,900	100.0	5,208,600	1,297,300

## LITTLE ROCK, ARK.

July.....	162,000	10.5	52,000	110,000
August.....	89,000	5.7	44,000	45,000
September.....	86,000	5.6	44,000	42,000
October.....	124,000	8.0	26,000	98,000
November.....	85,000	5.5	33,000	52,000
December.....	108,000	7.0	24,000	84,000
January.....	119,000	7.7	53,000	66,000
February.....	132,000	8.5	71,000	61,000
March.....	151,000	9.7	61,000	90,000
April.....	219,000	14.1	91,000	128,000
May.....	134,000	8.7	68,000	66,000
June.....	139,000	9.0	52,000	87,000
Total.....	1,548,000	100.0	619,000	929,000

## LOUISVILLE, KY.

July.....	415,450	9.7	135,100	280,350
August.....	516,900	12.1	252,940	263,960
September.....	369,950	8.7	218,322	151,628
October.....	461,525	10.8	263,684	197,841
November.....	219,000	5.1	205,152	13,848
December.....	212,000	5.0	118,785	93,215
January.....	334,810	7.8	164,420	170,390
February.....	477,300	11.2	267,355	209,945
March.....	439,660	10.3	259,305	180,355
April.....	386,435	9.0	264,000	122,435
May.....	269,300	6.3	154,492	114,808
June.....	171,200	4.0	138,218	32,982
Total.....	4,273,530	100.0	2,441,773	1,831,757

## MILWAUKEE, WIS.

July.....	826,200	7.5	984,978	* 158,778
August.....	776,900	7.1	418,331	358,569
September.....	1,157,700	10.5	463,117	694,583
October.....	1,341,300	12.2	1,327,639	13,661
November.....	603,500	5.5	535,000	68,500
December.....	1,042,100	9.5	772,780	269,320
January.....	599,600	5.4	613,150	* 13,550
February.....	1,042,200	9.5	807,539	234,661
March.....	903,600	8.2	810,392	93,208
April.....	648,000	5.9	551,572	96,428
May.....	991,800	9.0	565,085	426,715
June.....	1,062,800	9.7	656,810	405,990
Total.....	10,995,700	100.0	8,506,393	2,489,307

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS—Continued.

## MINNEAPOLIS, MINN.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	662,190	6.1	699,240	* 37,050
August.....	832,860	7.7	233,190	599,670
September.....	1,124,450	10.4	303,760	820,690
October.....	845,920	7.8	403,260	442,660
November.....	1,073,490	10.0	421,120	652,370
December.....	1,139,230	10.6	1,277,410	* 138,180
January.....	954,680	8.9	988,160	* 33,480
February.....	1,452,330	13.5	1,443,300	9,030
March.....	973,800	9.0	1,578,680	* 604,880
April.....	668,090	6.2	1,321,830	* 653,740
May.....	543,050	5.0	965,560	* 422,480
June.....	513,760	4.8	641,260	* 127,500
Total.....	10,783,880	100.0	10,276,770	507,110

## NEWPORT NEWS, VA.

July.....				
August.....	40,180	35.7		
September.....	55,285	49.1		
October.....	8,653	7.7		
November.....	1,240	1.1		
December.....				
January.....				
February.....	3,114	2.8		
March.....	2,518	2.2		
April.....				
May.....				
June.....	1,648	1.4		
Total.....	112,638	100.0		

## NEW ORLEANS, LA.

July.....	207,240	10.8	3,529	203,711
August.....	123,000	6.4	18,433	104,567
September.....	122,600	6.4	1,913	120,687
October.....	166,000	8.7	1,859	164,141
November.....	167,000	8.7	2,568	164,432
December.....	180,000	9.4	10,773	169,227
January.....	87,000	4.6	2,177	84,823
February.....	152,000	8.0	4,319	147,681
March.....	239,000	12.5	932	238,068
April.....	181,000	9.5	1,397	179,603
May.....	144,000	7.5	2,632	141,368
June.....	144,000	7.5	3,469	140,531
Total.....	1,912,840	100.0	54,041	1,858,799

## NEW YORK, N. Y.

July.....	2,264,925	10.1		
August.....	3,279,175	14.6		
September.....	1,534,525	6.8		
October.....	2,508,300	11.1		
November.....	1,934,525	8.6		
December.....	1,456,375	6.5		
January.....	1,354,200	6.0		
February.....	1,255,075	5.6		
March.....	1,817,800	8.1		
April.....	1,550,925	6.9		
May.....	1,203,225	5.3		
June.....	2,345,625	10.4		
Total.....	22,504,675	100.0		

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS—Continued.

## OMAHA, NEBR.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	872,100	8.8	541,500	330,600
August.....	725,900	7.3	315,000	410,900
September.....	885,700	8.9	396,000	489,700
October.....	987,700	10.0	306,000	681,700
November.....	520,200	5.2	553,500	*33,300
December.....	742,900	7.5	585,000	157,900
January.....	748,000	7.5	957,000	*209,000
February.....	1,258,000	12.7	1,083,000	175,000
March.....	833,000	8.4	924,000	*91,000
April.....	1,106,700	11.2	1,375,500	*268,800
May.....	683,400	6.9	1,485,000	*801,600
June.....	559,300	5.6	981,000	*421,700
Total.....	9,922,900	100.0	9,502,500	420,400

## PEORIA, ILL.

July.....	1,312,919	17.8	1,259,021	53,898
August.....	980,277	13.3	342,672	637,605
September.....	412,800	5.6	649,733	*236,933
October.....	330,700	4.5	714,170	*383,470
November.....	260,000	3.5	388,879	*128,879
December.....	466,200	6.3	699,032	*232,832
January.....	441,600	6.0	885,954	*444,354
February.....	530,875	7.2	727,877	*197,002
March.....	735,122	10.0	1,233,774	*498,652
April.....	616,513	8.4	800,802	*184,289
May.....	600,000	8.2	761,575	*161,575
June.....	673,200	9.2	812,183	*138,983
Total.....	7,360,206	100.0	9,275,672	*1,915,466

## PHILADELPHIA, PA.

July.....	525,614	7.1	.....	.....
August.....	1,115,161	15.0	.....	.....
September.....	484,040	6.5	.....	.....
October.....	567,453	7.6	.....	.....
November.....	468,943	6.3	.....	.....
December.....	558,829	7.5	.....	.....
January.....	599,448	8.1	.....	.....
February.....	592,156	8.0	.....	.....
March.....	665,147	9.0	.....	.....
April.....	603,777	8.1	.....	.....
May.....	453,611	6.1	.....	.....
June.....	793,718	10.7	.....	.....
Total.....	7,427,897	100.0	.....	.....

## PORTLAND, OREG. (BY WATER).

July.....	.....	.....	994	.....
August.....	.....	.....	2,500	.....
September.....	.....	.....	34,391	.....
October.....	.....	.....	21,266	.....
November.....	.....	.....	30,266	.....
December.....	.....	.....	84,375	.....
January.....	.....	.....	96,656	.....
February.....	.....	.....	27,410	.....
March.....	.....	.....	69,374	.....
April.....	.....	.....	24,978	.....
May.....	.....	.....	6,250	.....
June.....	.....	.....	.....	.....
Total.....	.....	.....	398,460	.....

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS—Continued.

ST. LOUIS, MO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	2,771,500	15.0	1,214,100	1,557,400
August.....	1,805,400	9.8	1,468,340	337,060
September.....	1,623,500	8.8	959,200	664,300
October.....	1,645,600	8.9	1,050,410	595,190
November.....	860,500	4.7	802,080	58,420
December.....	1,329,400	7.2	777,680	551,720
January.....	975,800	5.3	702,465	273,335
February.....	1,608,200	8.7	1,005,520	602,680
March.....	1,475,640	8.0	1,031,710	443,930
April.....	1,596,300	8.7	1,036,520	559,780
May.....	1,410,065	7.7	831,600	578,465
June.....	1,331,100	7.2	1,014,930	316,170
Total.....	18,433,005	100.0	11,894,555	6,538,450

## SAN FRANCISCO, CAL.

July.....	150,578	7.2	269	150,309
August.....	156,690	7.5	381	156,309
September.....	278,062	13.4	1,497	276,565
October.....	288,765	13.9	.....	288,765
November.....	372,640	17.9	156	372,484
December.....	161,697	7.8	938	160,759
January.....	261,735	12.6	578	261,157
February.....	89,359	4.3	.....	89,359
March.....	122,953	5.9	797	122,156
April.....	91,856	4.4	125	91,731
May.....	73,675	3.5	.....	73,675
June.....	32,884	1.6	.....	32,884
Total.....	2,080,894	100.0	4,741	2,076,153

## SEATTLE, WASH. (BY WATER).

July.....	.....	.....	14,345	.....
August.....	.....	.....	16,225	.....
September.....	.....	.....	1,574	.....
October.....	.....	.....	5,646	.....
November.....	.....	.....	21,589	.....
December.....	.....	.....	33,010	.....
January.....	.....	.....	2,485	.....
February.....	.....	.....	.....	.....
March.....	.....	.....	590	.....
April.....	.....	.....	6,820	.....
May.....	.....	.....	2,884	.....
June.....	.....	.....	7,150	.....
Total.....	.....	.....	112,318	.....

## TACOMA, WASH.

July.....	.....	.....	6,188	.....
August.....	.....	.....	1,312	.....
September.....	.....	.....	.....	.....
October.....	.....	.....	14,062	.....
November.....	.....	.....	39,813	.....
December.....	.....	.....	3,125	.....
January.....	.....	.....	13,875	.....
February.....	.....	.....	24,250	.....
March.....	.....	.....	6,312	.....
April.....	.....	.....	14,313	.....
May.....	.....	.....	27,438	.....
June.....	.....	.....	2,156	.....
Total.....	.....	.....	152,844	.....

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## OATS—Continued.

## TOLEDO, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	257,500	8.5	281,700	* 24,200
August.....	1,239,000	41.0	622,000	617,000
September.....	355,000	11.8	530,200	* 225,200
October.....	240,000	7.9	238,000	2,000
November.....	102,000	3.4	203,700	* 101,700
December.....	106,500	3.5	130,100	* 23,600
January.....	135,000	4.5	124,500	10,500
February.....	238,500	7.9	236,000	2,500
March.....	109,500	3.6	223,400	* 113,900
April.....	55,500	1.8	58,300	* 2,800
May.....	108,000	3.6	67,900	40,100
June.....	76,500	2.5	45,000	31,500
Total.....	3,023,000	100.0	2,810,800	212,200

## WICHITA, KANS.

July.....	33,000	6.3	22,000	11,000
August.....	94,500	17.9	78,500	16,000
September.....	72,000	13.6	58,000	14,000
October.....	54,000	10.2	43,000	11,000
November.....	24,000	4.6	11,500	12,500
December.....	21,000	4.0	9,000	12,000
January.....	112,000	21.2	84,600	27,400
February.....	90,000	17.1	65,000	25,000
March.....	15,000	2.8	11,000	4,000
April.....	12,200	2.3	8,600	3,600
May.....				
June.....				
Total.....	527,700	100.0	391,200	136,500

## ONIONS.

## BOSTON, MASS.

July.....	18,587	2.1		
August.....	32,513	3.6		
September.....	76,740	8.6		
October.....	118,195	13.3		
November.....	61,983	7.0		
December.....	50,563	5.7		
January.....	64,642	7.3		
February.....	44,516	5.0		
March.....	93,537	10.5		
April.....	126,291	14.2		
May.....	140,366	15.8		
June.....	61,312	6.9		
Total.....	889,245	100.0		

## LOUISVILLE, KY.

	<i>Barrels.</i>	<i>Per cent.</i>	<i>Barrels.</i>	<i>Barrels.</i>
July.....	7,945	22.2	19,915	* 11,970
August.....	1,971	5.4	7,124	* 5,153
September.....	1,669	4.6	4,137	* 2,468
October.....	7,225	20.2	3,340	3,885
November.....	3,250	8.9	2,616	634
December.....	410	1.1	1,298	* 888
January.....	2,591	7.1	6,516	* 3,925
February.....	4,430	12.2	12,119	* 7,689
March.....	2,003	5.5	12,752	* 10,748
April.....	1,105	3.0	3,340	* 2,235
May.....	2,710	7.4	165	2,545
June.....	900	2.4	386	514
Total.....	36,210	100.0	73,708	* 37,498

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## ONIONS—Continued.

ST. LOUIS, MO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.	
	Quantity.	Relative monthly.			
	<i>Sacks and barrels.</i>	<i>Cars.</i>	<i>Per cent.</i>	<i>Packages.</i>	<i>Packages.</i>
July.....	7,415	4	.....	15,070	.....
August.....	13,125	27	.....	18,485	.....
September.....	13,970	52	.....	25,785	.....
October.....	26,290	76	.....	40,860	.....
November.....	25,900	56	.....	31,830	.....
December.....	13,440	20	.....	20,940	.....
January.....	34,860	66	.....	28,200	.....
February.....	23,580	47	.....	24,530	.....
March.....	11,840	29	.....	23,850	.....
April.....	240,635	2	.....	171,715	.....
May.....	212,160	.....	.....	186,380	.....
June.....	14,885	1	.....	52,135	.....
Total.....	638,100	380	.....	639,780	.....

## SAN FRANCISCO, CAL.

	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	24,257	8.8	.....	.....
August.....	39,450	14.2	.....	.....
September.....	49,350	17.8	.....	.....
October.....	47,840	17.3	.....	.....
November.....	30,400	11.0	.....	.....
December.....	8,040	2.9	.....	.....
January.....	14,065	5.1	.....	.....
February.....	8,940	3.2	.....	.....
March.....	7,099	2.6	.....	.....
April.....	8,225	3.0	.....	.....
May.....	15,856	5.7	.....	.....
June.....	23,328	8.4	.....	.....
Total.....	276,850	100.0	.....	.....

## ORANGES.

BOSTON, MASS.

	<i>Boxes.</i>	<i>Per cent.</i>	<i>Boxes.</i>	<i>Boxes.</i>
July.....	.....	.....	.....	.....
August.....	.....	.....	.....	.....
September.....	770	0.2	.....	.....
October.....	4,264	1.4	.....	.....
November.....	41,416	13.3	.....	.....
December.....	97,484	31.3	.....	.....
January.....	55,196	17.7	.....	.....
February.....	56,787	18.2	.....	.....
March.....	40,537	13.0	.....	.....
April.....	8,815	2.8	.....	.....
May.....	4,379	1.4	.....	.....
June.....	2,084	.7	.....	.....
Total.....	311,732	100.0	.....	.....

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## ORANGES—Continued.

CINCINNATI, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Boxes.</i>	<i>Per cent.</i>	<i>Boxes.</i>	<i>Boxes.</i>
July.....	8,797	1.5	4,583	4,214
August.....	11,305	2.0	7,457	3,848
September.....	5,211	0.9	3,180	2,031
October.....	6,311	1.1	4,143	2,168
November.....	35,392	6.2	66,437	*31,045
December.....	168,663	29.3	72,330	96,333
January.....	63,933	11.1	31,343	32,590
February.....	90,087	15.7	73,158	16,929
March.....	79,151	13.8	53,062	26,089
April.....	46,964	8.2	19,463	27,501
May.....	35,898	6.2	21,966	13,932
June.....	23,283	4.0	13,785	9,498
Total.....	574,995	100.0	370,907	204,088

## NEW YORK, N. Y.

July.....	141,295	4.5		
August.....	109,991	3.5		
September.....	70,393	2.3		
October.....	150,847	4.8		
November.....	<sup>1</sup> 212,847	6.8		
December.....	<sup>1</sup> 388,418	12.5		
January.....	<sup>1</sup> 305,246	9.8		
February.....	<sup>1</sup> 388,361	12.5		
March.....	<sup>1</sup> 323,715	10.4		
April.....	<sup>1</sup> 375,707	12.0		
May.....	<sup>1</sup> 401,131	12.9		
June.....	250,587	8.0		
Total.....	3,118,538	100.0		

## ORANGES AND LEMONS.

SAN FRANCISCO, CAL.

	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	19,072	6.2		
August.....	11,932	3.9		
September.....	9,458	3.1		
October.....	11,917	3.9		
November.....	30,895	10.1		
December.....	37,294	12.2		
January.....	30,689	10.0		
February.....	28,931	9.4		
March.....	48,332	15.7		
April.....	21,824	7.1		
May.....	23,000	7.5		
June.....	33,322	10.9		
Total.....	306,666	100.0		

\* Excess of shipments over receipts.

<sup>1</sup> Includes grapefruit.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## PEAS.

## BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	610	0.8	.....	.....
August.....	95	.1	.....	.....
September.....	6,506	8.7	.....	.....
October.....	6,602	8.9	.....	.....
November.....	10,485	14.1	.....	.....
December.....	7,750	10.4	.....	.....
January.....	10,682	14.3	.....	.....
February.....	2,259	3.0	.....	.....
March.....	5,882	7.9	.....	.....
April.....	10,207	13.7	.....	.....
May.....	6,490	8.7	.....	.....
June.....	7,045	9.4	.....	.....
Total.....	74,613	100.0	.....	.....

## NEW YORK, N. Y.

July.....	57,323	20.7	.....	.....
August.....	67,003	24.2	.....	.....
September.....	54,596	19.7	.....	.....
October.....	24,792	9.0	.....	.....
November.....	10,855	3.9	.....	.....
December.....	10,534	3.8	.....	.....
January.....	7,820	2.8	.....	.....
February.....	4,550	1.6	.....	.....
March.....	10,487	3.8	.....	.....
April.....	17,855	6.5	.....	.....
May.....	4,175	1.5	.....	.....
June.....	6,802	2.5	.....	.....
Total.....	276,792	100.0	.....	.....

## SAN FRANCISCO, CAL.

	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	14	0.8	.....	.....
August.....	.....	.....	.....	.....
September.....	483	29.0	.....	.....
October.....	77	4.6	.....	.....
November.....	.....	.....	.....	.....
December.....	.....	.....	.....	.....
January.....	370	22.2	.....	.....
February.....	.....	.....	.....	.....
March.....	24	1.4	.....	.....
April.....	300	18.0	.....	.....
May.....	25	1.5	.....	.....
June.....	375	22.5	.....	.....
Total.....	1,668	100.0	.....	.....



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## PINEAPPLES.

BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	20,217	21.8		
August.....	5,878	6.3		
September.....	1,989	2.2		
October.....	1,938	2.1		
November.....	701	.8		
December.....	640	.7		
January.....	506	.5		
February.....	1,213	1.3		
March.....	294	.3		
April.....	5,064	5.5		
May.....	19,915	21.5		
June.....	34,259	37.0		
Total.....	92,614	100.0		

## SAN FRANCISCO, CAL.

	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	11,405	2.2		
August.....	102,420	19.7		
September.....	65,804	12.7		
October.....	156,081	30.1		
November.....	52,147	10.1		
December.....	25,327	4.9		
January.....	29,057	5.6		
February.....	4,676	.9		
March.....	11,251	2.2		
April.....	29,800	5.7		
May.....	15,735	3.0		
June.....	15,044	2.9		
Total.....	518,747	100.0		

## SEATTLE, WASH. (BY WATER).

July.....	185	1.1		
August.....				
September.....				
October.....	11,529	70.4		
November.....				
December.....				
January.....	1,263	7.7		
February.....				
March.....	800	4.9		
April.....	2,595	15.9		
May.....				
June.....				
Total.....	16,372	100.0		

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## POTATOES.

BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions. In- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	474,500	5.4		
August.....	619,535	7.1		
September.....	1,267,500	14.5		
October.....	804,000	9.2		
November.....	602,827	6.9		
December.....	548,054	6.3		
January.....	670,045	7.6		
February.....	662,000	7.6		
March.....	837,611	9.6		
April.....	1,037,000	11.8		
May.....	748,000	8.5		
June.....	478,000	5.5		
Total.....	8,749,072	100.0		

## CHICAGO, ILL.

		<i>Per cent.</i>		
July.....	218,400	1.2	159,700	58,700
August.....	547,400	3.1	170,600	376,800
September.....	1,528,900	8.5	337,400	1,191,500
October.....	2,479,900	13.8	556,000	1,923,900
November.....	2,429,900	13.5	472,300	1,957,600
December.....	1,603,200	8.9	375,600	1,227,600
January.....	1,663,500	9.2	390,800	1,272,700
February.....	1,993,500	11.2	726,900	1,266,600
March.....	2,250,000	12.5	834,500	1,415,500
April.....	1,503,500	8.4	579,500	924,000
May.....	943,600	5.3	292,100	651,500
June.....	794,000	4.4	219,400	574,600
Total.....	17,955,800	100.0	5,114,800	12,841,000

## CINCINNATI, OHIO.

July.....	92,934	4.2	30,109	62,825
August.....	95,646	4.3	47,394	48,252
September.....	108,280	4.9	26,194	82,086
October.....	218,678	9.8	52,337	166,341
November.....	381,332	17.2	112,369	268,963
December.....	216,650	9.7	107,730	108,920
January.....	153,920	6.9	37,469	116,451
February.....	166,834	7.5	75,232	91,602
March.....	258,837	11.7	106,289	152,548
April.....	228,534	10.3	109,912	118,622
May.....	173,551	7.8	91,050	82,501
June.....	127,053	5.7	82,448	44,605
Total.....	2,222,279	100.0	878,533	1,343,746

## INDIANAPOLIS, IND.

July.....	28,000	4.7	2,500	25,500
August.....	18,000	3.0	4,000	14,000
September.....	35,500	6.0	500	35,000
October.....	71,000	12.0	6,500	64,500
November.....	70,500	11.9	2,500	68,000
December.....	48,000	8.1	610	47,390
January.....	50,300	8.5	3,000	47,300
February.....	69,000	11.6	4,100	64,900
March.....	83,200	14.0	6,500	76,700
April.....	72,000	12.1	73,000	* 1,000
May.....	30,000	5.0	79,000	* 49,000
June.....	18,500	3.1	120,000	* 101,500
Total.....	594,000	100.0	302,210	291,790

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## POTATOES—Continued.

## PEORIA, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	17,500	1.7	2,000	15,500
August.....	52,500	5.2	21,544	30,956
September.....	81,500	8.0	44,467	37,033
October.....	161,500	15.8	91,569	69,931
November.....	197,185	19.3	107,904	89,281
December.....	70,000	6.9	30,000	40,000
January.....	70,500	6.9	27,835	42,665
February.....	110,500	10.8	45,834	64,666
March.....	117,000	11.4	67,750	49,250
April.....	67,830	6.7	36,402	31,428
May.....	27,500	2.7	13,310	14,190
June.....	46,500	4.6	15,045	31,455
Total.....	1,020,015	100.0	503,660	516,355

## ST. LOUIS, MO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.		Net receipts.
	Quantity.	Relative monthly.			
	<i>Sks., bbls.</i>	<i>Cars.</i>	<i>Packages.</i>	<i>Bushels.</i>	
July.....	34,990	168	43,955	37,160	.....
August.....	21,450	95	25,135	28,230	.....
September.....	18,560	124	19,970	26,850	.....
October.....	43,080	418	26,490	14,310	.....
November.....	66,680	423	46,015	44,780	.....
December.....	63,280	282	35,450	45,190	.....
January.....	67,080	465	55,470	86,950	.....
February.....	63,080	448	63,765	119,350	.....
March.....	77,755	370	69,440	61,700	.....
April.....	70,695	352	65,135	32,830	.....
May.....	254,435	178	118,530	78,590	.....
June.....	285,730	169	130,280	134,790	.....
Total.....	1,066,815	3,492	699,635	710,730	.....

## SAN FRANCISCO, CAL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	125,816	8.8	.....	.....
August.....	160,550	11.2	.....	.....
September.....	150,495	10.6	.....	.....
October.....	128,945	9.1	.....	.....
November.....	146,074	10.3	.....	.....
December.....	150,114	10.5	.....	.....
January.....	144,141	10.1	.....	.....
February.....	100,136	7.0	.....	.....
March.....	97,451	6.8	.....	.....
April.....	77,755	5.5	.....	.....
May.....	65,469	4.6	.....	.....
June.....	77,931	5.5	.....	.....
Total.....	1,424,877	100.0	.....	.....

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## POULTRY.

BOSTON, MASS.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Packages.</i>	<i>Per cent.</i>	<i>Packages.</i>	<i>Packages.</i>
July.....	23,826	5.1		
August.....	15,401	3.3		
September.....	21,997	4.7		
October.....	26,143	5.6		
November.....	79,129	16.9		
December.....	99,883	21.3		
January.....	57,462	12.3		
February.....	41,448	8.9		
March.....	34,399	7.3		
April.....	19,024	4.1		
May.....	20,812	4.4		
June.....	28,443	6.1		
Total.....	467,967	100.0		

## INDIANAPOLIS, IND.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	244,500	8.8	192,000	52,500
August.....	486,850	17.4	304,000	182,850
September.....	469,950	16.8	368,000	101,950
October.....	421,150	15.1	368,000	53,150
November.....	514,000	18.4	432,000	82,000
December.....	528,000	18.9	448,000	80,000
January.....	20,000	.7	304,000	* 284,000
February.....	36,000	1.3	240,000	* 204,000
March.....	20,200	.7	400,000	* 379,800
April.....	42,500	1.5	160,000	* 117,500
May.....	11,520	.4	153,600	* 142,080
June.....			528,000	* 528,000
Total.....	2,794,670	100.0	3,897,600	* 1,102,930

## RAISINS.

SAN FRANCISCO, CAL.

	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	25,500	2.8		
August.....	44,500	4.9		
September.....	64,270	7.0		
October.....	202,900	22.1		
November.....	186,000	20.3		
December.....	80,110	8.7		
January.....	62,350	6.8		
February.....	74,470	8.1		
March.....	60,500	6.6		
April.....	44,545	4.9		
May.....	40,400	4.4		
June.....	31,250	3.4		
Total.....	916,795	100.0		

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## RICE.

NEW ORLEANS, LA. (CLEAN RICE).<sup>1</sup>

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pockets.</i>	<i>Per cent.</i>	<i>Pockets.</i>	<i>Pockets.</i>
July.....	88,809	8.5	129,721	* 40,912
August.....	56,354	5.4	198,798	* 142,444
September.....	45,923	4.4	251,997	* 206,074
October.....	103,964	9.9	327,616	* 223,652
November.....	139,766	13.3	281,410	* 141,644
December.....	65,812	6.3	132,307	* 66,495
January.....	134,936	12.8	254,575	* 119,639
February.....	112,379	10.7	166,384	* 54,005
March.....	129,041	12.3	194,766	* 65,725
April.....	110,982	10.6	141,463	* 30,481
May.....	47,227	4.5	100,663	* 53,436
June.....	13,521	1.3	68,614	* 55,093
Total.....	1,048,714	100.0	2,248,314	* 1,199,600

## NEW ORLEANS, LA. (ROUGH RICE).

	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	30,689	2.6	22,466	8,223
August.....	114,011	9.8	147,602	* 33,591
September.....	233,663	20.0	171,695	61,968
October.....	233,217	20.0	235,644	* 2,427
November.....	191,919	16.5	172,017	19,902
December.....	81,499	7.0	85,760	* 4,261
January.....	135,770	11.6	140,230	* 4,460
February.....	107,650	9.2	83,008	24,642
March.....	28,718	2.5	87,238	* 58,520
April.....	5,885	.5	11,138	* 5,253
May.....	3,868	.3	.....	3,868
June.....	510	.....	10,924	* 10,414
Total.....	1,167,399	100.0	1,167,722	323

## PORTLAND, OREG. (BY WATER).

July.....	325	15.6	.....	325
August.....	.....	.....	100	* 100
September.....	.....	.....	.....	.....
October.....	100	4.8	.....	100
November.....	216	10.4	.....	216
December.....	.....	.....	.....	.....
January.....	466	22.3	.....	466
February.....	371	17.8	.....	371
March.....	300	14.4	.....	300
April.....	.....	.....	.....	.....
May.....	50	2.4	.....	50
June.....	257	12.3	.....	257
Total.....	2,085	100.0	100	1,985

\* Excess of shipments over receipts.

<sup>1</sup> Excess of shipments apparently due to rice which was received at New Orleans unhulled (rough) and was hulled in the mills of that city.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## RICE—Continued.

ST. LOUIS, MO.<sup>1</sup>

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Packages.</i>	<i>Per cent.</i>	<i>Packages.</i>	<i>Packages.</i>
July.....	8,040	2.4	16,585	* 8,545
August.....	7,660	2.3	21,785	* 14,125
September.....	27,190	8.3	27,425	* 235
October.....	35,560	10.8	31,650	3,910
November.....	49,800	15.2	37,040	12,760
December.....	42,320	12.9	33,370	8,950
January.....	32,750	10.0	33,690	* 940
February.....	31,050	9.5	29,895	1,155
March.....	27,740	8.5	30,095	* 2,355
April.....	23,410	7.1	32,375	* 8,965
May.....	31,490	9.6	39,875	* 8,385
June.....	11,230	3.4	32,665	* 21,435
Total.....	328,240	100.0	366,450	* 38,210

## SAN FRANCISCO, CAL.

	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	2,432	5.0		
August.....	5,355	11.0		
September.....	3,629	7.5		
October.....	4,019	8.3		
November.....	5,446	11.2		
December.....	4,249	8.7		
January.....	4,375	9.0		
February.....	350	.7		
March.....	5,048	10.4		
April.....	9,315	19.2		
May.....	2,746	5.6		
June.....	1,660	3.4		
Total.....	48,624	100.0		

## RYE.

BALTIMORE, MD.

	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	4,805	0.7		
August.....	10,745	1.6		
September.....	149,833	21.3		
October.....	172,091	26.0		
November.....	104,098	15.7		
December.....	56,944	8.6		
January.....	37,730	5.7		
February.....	26,907	4.1		
March.....	52,167	7.9		
April.....	43,076	6.5		
May.....	10,854	1.6		
June.....	2,265	.3		
Total.....	662,575	100.0		

<sup>1</sup> Returns apparently incomplete.

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**RYE—Continued.**

**BOSTON, MASS.**

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	850	2.3		
August.....	4,614	12.5		
September.....	6,886	18.6		
October.....	2,616	7.1		
November.....	7,256	19.7		
December.....	4,185	11.3		
January.....	1,100	3.0		
February.....	1,000	2.7		
March.....	1,000	2.7		
April.....	2,045	5.5		
May.....	3,353	9.1		
June.....	2,015	5.5		
Total.....	36,920	100.0		

**CHICAGO, ILL.**

July.....	53,200	2.6	23,300	29,900
August.....	174,000	8.4	17,400	156,600
September.....	293,000	14.1	116,900	176,100
October.....	329,500	15.9	133,000	196,500
November.....	256,000	12.3	112,200	143,800
December.....	179,500	8.6	80,300	99,200
January.....	159,000	7.6	87,400	71,600
February.....	212,000	10.2	115,100	96,900
March.....	144,000	6.9	68,500	75,500
April.....	117,500	5.7	120,200	* 2,700
May.....	88,500	4.3	28,000	60,500
June.....	71,000	3.4	23,200	47,800
Total.....	2,077,200	100.0	925,500	1,151,700

**CINCINNATI, OHIO.**

July.....	23,732	3.7	3,476	20,256
August.....	41,684	6.6	16,141	25,543
September.....	91,406	14.4	19,226	72,180
October.....	65,428	10.3	22,666	42,762
November.....	76,253	12.0	19,129	57,124
December.....	79,926	12.6	44,794	35,132
January.....	105,816	16.7	41,008	64,808
February.....	37,780	5.9	41,014	* 3,234
March.....	54,003	8.6	36,103	18,800
April.....	31,541	5.0	11,106	20,435
May.....	12,339	1.9	5,031	7,308
June.....	14,884	2.3	1,075	13,809
Total.....	635,692	100.0	260,769	374,923

**CLEVELAND, OHIO.**

July.....				
August.....	268	4.4		
September.....				
October.....				
November.....				
December.....				
January.....	525	8.6		
February.....	1,692	27.6		
March.....	1,000	16.3		
April.....				
May.....	1,505	24.5		
June.....	1,144	18.6		
Total.....	6,134	100.0		

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## RYE—Continued.

## DETROIT, MICH.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	5,140	2.6	.....	5,140
August.....	31,748	16.0	5,312	26,436
September.....	43,750	22.0	15,232	28,518
October.....	35,948	18.1	10,028	25,920
November.....	28,975	14.6	12,776	16,199
December.....	11,765	5.9	12,650	* 885
January.....	5,600	2.8	20,260	* 14,660
February.....	10,435	5.3	3,106	7,329
March.....	5,877	3.0	5,300	577
April.....	7,300	3.7	6,191	1,109
May.....	7,000	3.5	.....	7,000
June.....	5,000	2.5	.....	5,000
Total.....	198,538	100.0	90,855	107,683

## DULUTH, MINN.

July.....	34	.....	114	* 80
August.....	98,563	13.0	40,000	58,563
September.....	243,776	32.1	180,694	63,082
October.....	199,311	26.3	120,754	78,557
November.....	119,868	15.8	120,112	* 244
December.....	31,352	4.1	128,761	* 97,409
January.....	12,683	1.7	5,574	7,109
February.....	21,885	2.9	9,613	12,272
March.....	11,360	1.5	30	11,330
April.....	2,515	.3	27,715	* 25,200
May.....	12,517	1.7	88,096	* 75,579
June.....	4,900	.6	3,482	1,418
Total.....	758,764	100.0	724,945	33,819

INDIANAPOLIS, IND.<sup>1</sup>

July.....	.....	.....	15,000	* 15,000
August.....	.....	.....	.....	.....
September.....	1,000	1.8	.....	1,000
October.....	2,000	3.5	8,000	* 6,000
November.....	2,000	3.5	.....	2,000
December.....	3,000	5.2	64,000	* 61,000
January.....	3,600	6.3	.....	3,600
February.....	3,600	6.3	.....	3,600
March.....	4,800	8.4	.....	4,800
April.....	.....	.....	.....	.....
May.....	1,200	2.1	.....	1,200
June.....	36,000	62.9	1,200	34,800
Total.....	57,200	100.0	88,200	<sup>1</sup> 31,000

## KANSAS CITY, MO.

July.....	17,600	21.9	12,100	5,500
August.....	34,100	42.5	37,400	* 3,300
September.....	2,200	2.7	3,300	* 1,100
October.....	4,400	5.5	2,200	2,200
November.....	2,200	2.7	3,300	* 1,100
December.....	2,200	2.7	1,100	1,100
January.....	3,300	4.1	.....	3,300
February.....	5,500	6.9	2,200	3,300
March.....	2,200	2.8	1,100	1,100
April.....	2,200	2.8	2,200	.....
May.....	2,200	2.7	.....	2,200
June.....	2,200	2.7	2,200	.....
Total.....	80,300	100.0	67,100	13,200

\* Excess of shipments over receipts.

<sup>1</sup> Returns apparently incomplete.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**RYE—Continued.**

**LOUISVILLE, KY.**

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	10,450	1.2	6,990	3,460
August.....	27,800	3.3	9,880	17,920
September.....	20,650	2.5	6,735	13,915
October.....	118,530	14.0	9,832	108,698
November.....	118,455	14.0	38,230	80,225
December.....	91,700	10.8	52,330	39,370
January.....	78,905	9.3	63,985	14,920
February.....	139,565	16.5	55,735	83,830
March.....	111,700	13.2	70,650	41,050
April.....	74,550	8.8	50,620	23,930
May.....	33,740	4.0	15,670	18,070
June.....	20,000	2.4	.....	20,000
Total.....	846,045	100.0	380,657	465,388

**MINNEAPOLIS, MINN.**

July.....	63,800	2.6	7,900	55,900
August.....	391,940	16.0	123,240	268,700
September.....	348,910	14.2	156,160	192,750
October.....	450,360	18.3	74,590	375,770
November.....	384,920	15.7	83,640	301,280
December.....	211,050	8.6	132,630	78,420
January.....	134,500	5.5	79,490	55,010
February.....	100,790	4.1	82,660	18,130
March.....	124,540	5.1	50,130	74,410
April.....	75,100	3.1	47,580	27,520
May.....	81,570	3.3	45,530	36,040
June.....	87,050	3.5	61,460	25,590
Total.....	2,454,530	100.0	945,010	1,509,520

**MILWAUKEE, WIS.**

July.....	20,400	0.8	4,080	16,320
August.....	196,860	7.6	24,380	172,480
September.....	419,220	16.2	239,011	180,209
October.....	399,840	15.5	269,432	130,408
November.....	279,480	10.8	206,545	72,935
December.....	232,560	9.0	205,506	27,054
January.....	311,680	12.1	239,990	71,690
February.....	238,700	9.2	259,516	* 20,816
March.....	203,500	7.9	165,353	38,147
April.....	124,300	4.8	179,120	* 54,820
May.....	66,000	2.6	48,860	17,140
June.....	89,100	3.5	31,482	57,618
Total.....	2,581,640	100.0	1,873,275	708,365

**NEW YORK, N. Y.**

July.....	3,450	1.4	.....	.....
August.....	2,300	1.0	.....	.....
September.....	57,500	24.3	.....	.....
October.....	56,120	23.7	.....	.....
November.....	22,170	9.3	.....	.....
December.....	19,550	8.2	.....	.....
January.....	2,300	1.0	.....	.....
February.....	21,850	9.2	.....	.....
March.....	25,300	10.7	.....	.....
April.....	9,200	3.9	.....	.....
May.....	1,150	.5	.....	.....
June.....	16,100	6.8	.....	.....
Total.....	236,990	100.0	.....	.....

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## RYE—Continued.

## OMAHA, NEBR.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Bushels.	Per cent.	Bushels.	Bushels.
July.....	1,100	1.8	2,000	* 900
August.....	5,500	8.8	5,000	500
September.....	8,800	14.0	1,000	7,800
October.....	12,100	19.3	2,000	10,100
November.....	13,200	21.0	1,000	12,200
December.....	8,800	14.0	.....	8,800
January.....	3,300	5.3	3,000	300
February.....	2,200	3.5	1,000	1,200
March.....	.....	.....	.....	.....
April.....	2,200	3.5	1,000	1,200
May.....	2,200	3.5	1,000	1,200
June.....	3,300	5.3	5,000	* 1,700
Total.....	62,700	100.0	22,000	40,700

## PEORIA, ILL.

July.....	3,300	1.2	.....	3,300
August.....	29,700	10.5	10,256	19,444
September.....	22,000	7.8	12,440	9,560
October.....	22,000	7.8	7,600	14,400
November.....	15,700	6.6	9,700	9,000
December.....	47,300	16.7	9,700	37,600
January.....	22,000	7.8	19,600	2,400
February.....	29,970	10.6	13,592	16,378
March.....	28,800	10.2	13,164	15,636
April.....	8,400	3.0	6,400	2,000
May.....	30,000	10.6	12,299	17,701
June.....	20,400	7.2	8,200	12,200
Total.....	282,570	100.0	122,951	159,619

## ST. LOUIS, MO.

July.....	31,023	20.1	10,920	20,103
August.....	46,254	30.0	16,370	29,884
September.....	18,862	12.3	12,590	6,272
October.....	19,800	12.9	6,530	13,270
November.....	11,054	7.2	3,150	7,904
December.....	7,700	5.0	6,790	910
January.....	1,100	.7	2,430	* 1,330
February.....	3,300	2.1	6,300	* 3,000
March.....	5,500	3.6	8,860	* 3,360
April.....	4,490	2.9	2,600	1,890
May.....	459	.3	.....	459
June.....	4,400	2.9	900	3,500
Total.....	153,942	100.0	77,440	76,502

## SAN FRANCISCO, CAL.

July.....	.....	.....	.....	.....
August.....	4,366	12.8	.....	4,366
September.....	5,625	16.5	.....	5,625
October.....	2,454	7.2	.....	2,454
November.....	7,812	23.0	.....	7,812
December.....	661	1.9	.....	661
January.....	6,464	19.0	.....	6,464
February.....	1,929	5.7	.....	1,929
March.....	607	1.8	.....	607
April.....	2,071	6.1	.....	2,071
May.....	491	1.5	125	376
June.....	1,545	4.5	.....	1,545
Total.....	34,025	100.0	125	33,900

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**RYE**—Continued.

**TOLEDO, OHIO.**

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	3,000	10.7	1,100	1,900
August.....	5,000	17.9	1,900	3,100
September.....	2,000	7.1	.....	2,000
October.....	1,000	3.6	1,500	* 500
November.....	2,000	7.2	1,200	800
December.....	.....	.....	.....	.....
January.....	.....	.....	500	* 500
February.....	2,000	7.1	1,200	800
March.....	10,000	35.6	400	9,600
April.....	.....	.....	900	* 900
May.....	2,000	7.2	.....	2,000
June.....	1,000	3.6	.....	1,000
Total.....	28,000	100.0	8,700	19,300

**WICHITA, KANS.**

July.....				
August.....	2,000	100.0	2,000	
September.....				
October.....				
November.....				
December.....				
January.....				
February.....				
March.....				
April.....				
May.....				
June.....				
Total.....	2,000	100.0	2,000	

**SHEEP.**

**BALTIMORE, MD.**

	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	58,382	14.0		
August.....	85,748	20.6		
September.....	46,947	11.3		
October.....	44,588	10.7		
November.....	40,825	9.8		
December.....	26,648	6.4		
January.....	17,727	4.3		
February.....	12,825	3.1		
March.....	14,327	3.4		
April.....	12,584	3.0		
May.....	16,397	3.9		
June.....	39,545	9.5		
Total.....	416,543	100.0		

**BOSTON, MASS.**

July (4 weeks).....	36,929	7.2		
August (4 weeks).....	38,319	7.5		
September (5 weeks).....	55,267	10.8		
October (4 weeks).....	66,012	12.9		
November (4 weeks).....	75,383	14.8		
December (5 weeks).....	56,320	11.0		
January (4 weeks).....	31,336	6.1		
February (4 weeks).....	33,937	6.6		
March (5 weeks).....	26,595	5.2		
April (4 weeks).....	19,531	3.8		
May (4 weeks).....	25,706	5.0		
June (5 weeks).....	46,800	9.1		
Total.....	512,135	100.0		

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912.—Continued.

## SHEEP—Continued.

## CHICAGO, ILL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	446,210	7.4	37,926	408,284
August.....	494,795	8.3	93,361	401,434
September.....	652,627	10.9	283,485	369,142
October.....	886,213	14.8	377,073	509,140
November.....	610,577	10.2	153,962	456,615
December.....	492,135	8.2	67,961	424,174
January.....	564,518	9.4	73,228	491,290
February.....	427,077	7.1	89,274	337,803
March.....	390,309	6.5	93,790	296,519
April.....	348,721	5.8	69,861	278,860
May.....	321,523	5.4	29,586	291,937
June.....	361,174	6.0	17,094	344,080
Total.....	5,995,879	100.0	1,386,601	4,609,278

## CINCINNATI, OHIO.

July.....	149,003	29.8	115,463	33,540
August.....	147,989	29.6	123,777	24,212
September.....	43,471	8.7	22,525	20,946
October.....	22,889	4.6	9,653	13,236
November.....	15,708	3.1	4,832	10,876
December.....	13,794	2.8	3,380	10,414
January.....	8,567	1.7	2,620	5,947
February.....	5,532	1.1	280	5,252
March.....	4,259	.9	865	3,394
April.....	4,377	.9	289	4,088
May.....	13,913	2.8	5,321	8,592
June.....	70,167	14.0	60,857	9,310
Total.....	499,669	100.0	349,862	149,807

## CLEVELAND, OHIO.

July.....	25,220	5.3	7,790	17,430
August.....	26,747	5.6	10,999	15,748
September.....	24,623	5.2	10,511	14,112
October.....	56,691	12.0	25,478	31,213
November.....	45,870	9.9	24,800	21,070
December.....	42,642	9.0	21,662	20,980
January.....	45,965	9.7	21,619	24,346
February.....	42,236	8.9	26,810	15,426
March.....	39,612	8.3	23,914	15,698
April.....	38,329	8.1	1,239	37,090
May.....	40,149	8.5	9,164	30,985
June.....	45,106	9.5	16,143	28,963
Total.....	473,190	100.0	200,129	273,061

## DENVER, COLO.

July.....	16,354	2.7	5,556	10,798
August.....	26,504	4.4	9,581	16,923
September.....	80,872	13.4	74,904	5,968
October.....	156,327	25.9	114,223	42,104
November.....	157,022	26.0	165,329	*8,307
December.....	84,488	14.0	79,494	4,994
January.....	24,913	4.1	13,686	11,227
February.....	17,422	2.9	6,266	11,156
March.....	14,395	2.4	2,849	11,546
April.....	13,147	2.2	7,009	6,138
May.....	5,486	.9	1,680	3,806
June.....	6,245	1.1	3,133	3,112
Total.....	603,175	100.0	483,710	119,465

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## SHEEP—Continued.

## FORT WORTH, TEX.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	15,992	5.6	4,083	11,909
August.....	15,765	5.5	3,830	11,935
September.....	11,431	4.0	4,131	7,300
October.....	23,154	8.1	3,242	19,912
November.....	8,611	3.0	3,172	5,439
December.....	9,056	3.1	2,886	6,170
January.....	7,795	2.7	581	7,214
February.....	7,945	2.5	652	6,393
March.....	11,522	4.0	3,468	8,054
April.....	46,875	16.3	14,057	32,818
May.....	95,091	33.2	52,893	42,198
June.....	34,497	12.0	16,097	18,400
Total.....	286,834	100.0	109,092	177,742

## INDIANAPOLIS, IND.

July.....	19,616	12.3	9,851	9,765
August.....	24,194	15.1	16,817	7,377
September.....	16,346	10.2	9,148	7,198
October.....	19,470	12.2	11,838	7,632
November.....	11,809	7.4	4,522	7,287
December.....	10,999	6.9	5,168	5,831
January.....	11,764	7.4	4,621	7,143
February.....	7,030	4.4	1,979	5,051
March.....	6,545	4.1	2,464	4,081
April.....	5,331	3.3	1,443	3,888
May.....	13,965	8.7	6,203	7,762
June.....	12,749	8.0	6,693	6,056
Total.....	159,818	100.0	80,747	79,071

## KANSAS CITY, MO.

July.....	105,741	4.9	16,505	89,236
August.....	158,095	7.3	39,837	118,258
September.....	242,403	11.1	111,312	131,091
October.....	325,986	15.0	170,866	155,120
November.....	156,757	7.2	70,166	86,591
December.....	130,520	6.0	29,973	100,547
January.....	201,907	9.3	36,026	165,881
February.....	166,220	7.6	18,151	148,069
March.....	179,598	8.3	35,240	144,358
April.....	188,147	8.7	35,324	152,823
May.....	181,079	8.3	46,958	134,121
June.....	138,119	6.3	29,781	108,338
Total.....	2,174,572	100.0	640,139	1,534,433

## LOUISVILLE, KY.

July.....	178,622	41.1	176,773	1,849
August.....	64,569	14.8	67,176	* 2,607
September.....	12,980	3.0	8,827	4,153
October.....	6,123	1.4	3,565	2,558
November.....	2,082	.5	874	1,208
December.....	921	.2	58	863
January.....	1,017	.2	195	822
February.....	556	.1	.....	556
March.....	562	.1	.....	562
April.....	2,000	.5	560	1,440
May.....	8,742	2.0	5,650	3,092
June.....	156,836	36.1	149,585	7,251
Total.....	435,010	100.0	413,263	21,747

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## SHEEP—Continued.

MILWAUKEE, WIS.<sup>1</sup>

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July .....	4,474	7.8	617	3,857
August .....	5,328	9.3	700	4,628
September .....	5,924	10.3	1,521	4,403
October .....	7,684	13.4	3,574	4,110
November .....	7,118	12.4	3,713	3,405
December .....	2,954	5.1	189	2,765
January .....	3,383	5.9	234	3,149
February .....	4,224	7.3	1,330	2,894
March .....	3,551	6.2	534	3,017
April .....	2,944	5.1	.....	2,944
May .....	3,226	5.6	322	2,904
June .....	6,672	11.6	2,230	4,442
Total .....	57,482	100.0	14,964	42,518

## NEW YORK, N. Y.

Month.	Quantity.	Relative monthly.	Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
July (4 weeks) .....	219,316	9.4	.....	.....
August (4 weeks) .....	217,946	9.3	.....	.....
September (5 weeks) .....	229,740	9.9	.....	.....
October (4 weeks) .....	194,737	8.3	.....	.....
November (4 weeks) .....	224,669	9.6	.....	.....
December (5 weeks) .....	231,013	9.9	.....	.....
January (4 weeks) .....	183,079	7.9	.....	.....
February (4 weeks) .....	157,640	6.8	.....	.....
March (5 weeks) .....	178,883	7.7	.....	.....
April (4 weeks) .....	138,873	6.0	.....	.....
May (4 weeks) .....	124,851	5.4	.....	.....
June (5 weeks) .....	228,318	9.8	.....	.....
Total .....	2,329,065	100.0	.....	.....

## OMAHA, NEBR.

Month.	Quantity.	Relative monthly.	Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
July .....	118,318	3.8	27,574	90,744
August .....	334,315	10.8	180,002	154,313
September .....	615,926	19.8	450,273	165,653
October .....	716,492	23.1	521,182	195,310
November .....	294,411	9.5	192,621	101,790
December .....	127,058	4.1	26,444	100,614
January .....	169,969	5.5	19,937	150,032
February .....	162,470	5.2	26,479	135,991
March .....	235,718	7.6	93,080	142,638
April .....	179,333	5.8	87,324	92,009
May .....	89,302	2.9	17,833	71,469
June .....	60,179	1.9	12,542	47,637
Total .....	3,103,491	100.0	1,655,291	1,448,200

## PEORIA, ILL.

Month.	Quantity.	Relative monthly.	Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
July .....	330	7.4	330	.....
August .....	550	12.5	110	440
September .....	660	15.2	660	.....
October .....	1,440	32.6	1,980	*540
November .....	330	7.4	220	110
December .....	440	9.9	550	*110
January .....	.....	.....	330	*330
February .....	.....	.....	330	*330
March .....	.....	.....	.....	.....
April .....	220	5.0	220	.....
May .....	330	7.5	.....	330
June .....	110	2.5	110	.....
Total .....	4,410	100.0	4,840	*430

<sup>1</sup> Month in year ended June 30, 1911.

\* Excess of shipments over receipts; returns apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## SHEEP—Continued.

## PHILADELPHIA, PA.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Number.</i>	<i>Per cent.</i>	<i>Number.</i>	<i>Number.</i>
July.....	58,892	9.3		
August.....	53,051	8.4		
September (5 weeks).....	59,815	9.5		
October.....	49,997	7.9		
November.....	52,974	8.4		
December (5 weeks).....	53,201	8.4		
January.....	48,744	7.7		
February.....	43,225	6.8		
March (5 weeks).....	62,513	9.9		
April.....	43,370	6.9		
May.....	43,455	6.9		
June (5 weeks).....	62,744	9.9		
Total.....	631,981	100.0		

## PORTLAND, OREG.

July.....	28,614	10.6	26,822	1,792
August.....	33,006	12.2	34,182	* 1,176
September.....	29,654	11.0	30,347	* 693
October.....	28,213	10.5	26,956	1,257
November.....	25,366	9.4	24,915	451
December.....	12,383	4.6	12,852	* 469
January.....	15,492	5.7	16,171	* 679
February.....	21,332	7.9	20,828	504
March.....	16,422	6.1	16,313	109
April.....	13,006	4.8	14,255	* 1,249
May.....	26,079	9.7		26,079
June.....	20,252	7.5	20,916	* 664
Total.....	269,819	100.0	244,557	25,262

## ST. JOSEPH, MO.

July.....	32,154	4.5	1,995	30,189
August.....	65,653	9.1	16,111	49,542
September.....	94,522	13.1	43,517	51,005
October.....	96,057	13.3	39,250	56,807
November.....	34,268	4.8	11,922	22,346
December.....	44,870	6.2	5,751	39,119
January.....	64,630	9.0	9,703	54,927
February.....	63,578	8.8	13,092	50,486
March.....	83,169	11.6	20,784	62,385
April.....	62,592	8.7	4,415	58,177
May.....	39,415	5.5	4,538	34,877
June.....	38,623	5.4	6,267	32,356
Total.....	719,561	100.0	177,345	542,216

## ST. LOUIS, MO.

July.....	142,377	14.6	19,680	122,697
August.....	99,367	10.2	10,473	88,894
September.....	62,356	6.4	10,983	51,373
October.....	74,666	7.6	11,588	63,078
November.....	60,203	6.2	6,161	54,042
December.....	61,824	6.2	3,960	57,864
January.....	81,314	8.3	2,747	78,567
February.....	96,630	9.9	4,569	92,061
March.....	54,275	5.6	5,122	49,153
April.....	55,260	5.7	2,629	52,631
May.....	69,304	7.1	9,725	59,579
June.....	119,630	12.2	16,982	102,648
Total.....	977,206	100.0	104,619	872,587

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## SHEEP—Continued.

ST. PAUL, MINN.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	Number.	Per cent.	Number.	Number.
July.....	23,424	3.1	13,130	10,294
August.....	47,942	6.5	32,425	15,517
September.....	102,181	13.8	82,610	19,571
October.....	275,609	37.1	232,000	43,609
November.....	132,152	17.8	114,190	17,962
December.....	27,716	3.7	12,032	15,684
January.....	36,761	5.0	20,561	16,200
February.....	27,967	3.8	19,838	8,129
March.....	35,040	4.7	23,865	11,175
April.....	12,125	1.6	6,570	5,555
May.....	10,007	1.3	2,643	7,364
June.....	12,072	1.6	3,945	8,127
Total.....	742,996	100.0	563,809	179,187

## SIOUX CITY, IOWA.

July.....	7,220	3.4	1,049	6,171
August.....	14,501	6.7	6,202	8,299
September.....	23,763	11.0	9,407	14,356
October.....	40,190	18.6	14,215	25,975
November.....	46,325	21.5	22,325	24,000
December.....	19,805	9.1	2,895	16,910
January.....	23,170	10.8	721	22,449
February.....	16,345	7.6	1,001	15,344
March.....	11,308	5.3	6	11,302
April.....	4,498	2.1	364	4,134
May.....	4,883	2.3	154	4,729
June.....	3,383	1.6	.....	3,383
Total.....	215,391	100.0	58,339	157,052

## WICHITA, KANS.

July.....	435	0.4	276	159
August.....	226	.2	149	77
September.....	3,313	3.0	2,779	534
October.....	3,185	2.9	1,258	1,927
November.....	17,537	16.0	10,275	7,262
December.....	7,621	7.0	3,591	4,030
January.....	11,967	10.9	3,482	8,485
February.....	4,043	3.7	1,371	2,672
March.....	538	.5	.....	538
April.....	11,647	10.6	9,648	1,999
May.....	32,022	29.2	27,333	4,689
June.....	17,030	15.6	13,970	3,060
Total.....	109,564	100.0	74,132	35,432

## STRAW.

BOSTON, MASS.

	Cars.	Per cent.	Cars.	Cars.
July.....	36	7.2	.....	.....
August.....	21	4.2	.....	.....
September.....	49	9.8	.....	.....
October.....	51	10.2	.....	.....
November.....	47	9.4	.....	.....
December.....	37	7.4	.....	.....
January.....	35	7.0	.....	.....
February.....	86	17.2	.....	.....
March.....	33	6.6	.....	.....
April.....	31	6.2	.....	.....
May.....	26	5.2	.....	.....
June.....	48	9.6	.....	.....
Total.....	500	100.0	.....	.....



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## STRAW—Continued.

SAN FRANCISCO, CAL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Short tons.</i>	<i>Per cent.</i>	<i>Short tons.</i>	<i>Short tons.</i>
July.....	86	6.5	.....	.....
August.....	130	9.9	.....	.....
September.....	99	7.5	.....	.....
October.....	60	4.5	.....	.....
November.....	163	12.3	.....	.....
December.....	80	6.1	.....	.....
January.....	150	11.4	.....	.....
February.....	126	9.5	.....	.....
March.....	138	10.5	.....	.....
April.....	105	8.0	.....	.....
May.....	78	5.9	.....	.....
June.....	105	7.9	.....	.....
Total.....	1,320	100.0	.....	.....

## TIMOTHY SEED.

CHICAGO, ILL.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	87,000	0.4	3,200	83,800
August.....	4,450,500	20.3	2,451,700	1,998,800
September.....	5,829,300	26.7	5,038,200	791,100
October.....	4,011,200	18.3	2,034,500	1,976,700
November.....	2,649,000	12.1	2,051,400	597,600
December.....	1,120,300	5.1	687,800	432,500
January.....	791,700	3.6	481,900	309,800
February.....	878,800	4.0	957,500	* 78,700
March.....	868,000	4.0	1,355,500	* 487,500
April.....	557,300	2.5	760,900	* 203,600
May.....	387,500	1.8	359,809	27,691
June.....	242,200	1.2	53,800	188,400
Total.....	21,872,800	100.0	16,236,209	5,636,591

## CINCINNATI, OHIO.

	<i>Bags.</i>	<i>Per cent.</i>	<i>Bags.</i>	<i>Bags.</i>
July.....	274	0.8	181	93
August.....	7,543	21.5	1,392	6,151
September.....	11,418	32.6	6,371	5,047
October.....	4,174	11.9	2,579	1,595
November.....	2,436	7.0	249	2,187
December.....	1,778	5.1	626	1,152
January.....	1,524	4.4	781	743
February.....	697	2.0	1,886	* 1,189
March.....	1,293	3.7	2,088	* 795
April.....	2,986	8.5	2,553	433
May.....	878	2.5	2,024	* 1,146
June.....	1	(1)	107	* 106
Total.....	35,002	100.0	20,837	14,165

\* Excess of shipments over receipts.

1 Less than 0.05 per cent.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## TOBACCO.

CINCINNATI, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Hogsheads.</i>	<i>Per cent.</i>	<i>Hogsheads.</i>	<i>Hogsheads.</i>
July.....	5,047	6.5	4,893	154
August.....	6,728	8.6	4,316	2,412
September.....	6,698	8.6	3,592	3,106
October.....	2,586	3.3	2,641	* 55
November.....	3,120	4.0	3,373	* 253
December.....	6,571	8.4	5,537	1,034
January.....	5,695	7.3	8,496	* 2,801
February.....	8,368	10.8	9,051	* 683
March.....	13,235	17.0	11,636	1,599
April.....	10,379	13.3	9,437	942
May.....	4,729	6.1	6,139	* 1,410
June.....	4,751	6.1	6,124	* 1,373
Total.....	77,907	100.0	75,235	2,672

CINCINNATI, OHIO.

	<i>Cases.</i>	<i>Per cent.</i>	<i>Cases.</i>	<i>Cases.</i>
July.....	1,596	2.7	1,910	* 314
August.....	1,689	2.9	484	1,205
September.....	3,706	6.3	2,316	1,390
October.....	4,379	7.5	3,619	760
November.....	2,467	4.2	1,492	975
December.....	4,165	7.1	2,833	1,332
January.....	3,598	6.2	2,721	877
February.....	5,433	9.3	4,021	1,412
March.....	7,579	13.0	6,892	687
April.....	9,386	16.0	5,366	4,020
May.....	7,480	12.8	5,422	2,058
June.....	7,000	12.0	4,211	2,789
Total.....	58,478	100.0	41,287	17,191

LOUISVILLE, KY.

	<i>Hogsheads.</i>	<i>Per cent.</i>	<i>Hogsheads.</i>	<i>Hogsheads.</i>
July.....	7,416	4.9	6,255	1,131
August.....	7,084	4.7	5,201	1,883
September.....	6,015	4.0	7,229	* 1,214
October.....	6,713	4.4	6,797	* 84
November.....	5,658	3.8	7,361	* 1,703
December.....	11,477	7.6	10,218	1,259
January.....	23,377	15.5	11,051	12,326
February.....	27,472	18.2	14,243	13,229
March.....	24,593	16.3	16,065	8,528
April.....	10,202	6.8	14,011	* 3,809
May.....	8,851	5.9	12,224	* 3,373
June.....	11,998	7.9	10,478	1,520
Total.....	150,856	100.0	121,163	29,693

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## TOBACCO—Continued.

ST. LOUIS, MO.

Month.	Receipts, domestic, all sources.		Relative monthly.	Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.				
	<i>Hogsheads.</i>	<i>Packages.</i>		<i>Hogsheads.</i>	<i>Hogsheads.</i>
July.....	2,313	740			
August.....	1,591	911		30	
September.....	885	737		860	
October.....	3,165	715		3,310	
November.....	5,003	920		1,170	
December.....	4,277	735		90	
January.....	4,360	1,270		65	
February.....	6,831	1,630		370	
March.....	6,652	2,795		675	
April.....	4,353	1,765		1,285	
May.....	2,626	969		425	
June.....	1,246	1,763		40	
Total.....	43,302	14,950		8,320	

## WALNUTS.

SAN FRANCISCO, CAL.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....				
August.....	405	2.8		
September.....	15	.1		
October.....	4,110	24.5		
November.....	8,809	52.4		
December.....	867	5.2		
January.....	535	3.2		
February.....	160	.9		
March.....	250	1.5		
April.....	1,170	7.0		
May.....	158	.9		
June.....	255	1.5		
Total.....	16,794	100.0		

## WATERMELONS.

BOSTON, MASS.

	<i>Cars.</i>	<i>Per cent.</i>	<i>Cars.</i>	<i>Cars.</i>
July.....	300	46.2		
August.....	190	29.3		
September.....	6	.9		
October.....				
November.....				
December.....				
January.....				
February.....				
March.....				
April.....				
May.....				
June.....	153	23.6		
Total.....	649	100.0		

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WATERMELONS—Continued.

CINCINNATI, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Cars.</i>	<i>Per cent.</i>	<i>Cars.</i>	<i>Cars.</i>
July.....	1,936	72.6	1,776	100
August.....	682	25.6	540	142
September.....	43	1.6	29	14
October.....	3	.1	1	2
November.....	2	.1	2	.....
December.....	.....	.....	.....	.....
January.....	.....	.....	.....	.....
February.....	.....	.....	.....	.....
March.....	.....	.....	.....	.....
April.....	.....	.....	.....	.....
May.....	.....	.....	.....	.....
June.....	.....	.....	.....	.....
Total.....	2,666	100.0	2,348	318

## WHEAT.

BALTIMORE, MD.

	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	2,919,794	24.1	.....	.....
August.....	2,075,466	17.1	.....	.....
September.....	1,184,887	9.8	.....	.....
October.....	856,244	7.1	.....	.....
November.....	1,306,469	10.8	.....	.....
December.....	559,918	4.6	.....	.....
January.....	453,812	3.7	.....	.....
February.....	130,471	1.1	.....	.....
March.....	128,661	1.0	.....	.....
April.....	77,719	.6	.....	.....
May.....	1,499,067	12.4	.....	.....
June.....	930,652	7.7	.....	.....
Total.....	12,123,160	100.0	.....	.....

## BOSTON, MASS.

July.....	586,380	4.9	.....	.....
August.....	1,179,065	9.8	.....	.....
September.....	1,015,591	8.5	.....	.....
October.....	976,537	8.2	.....	.....
November.....	1,574,120	13.1	.....	.....
December.....	1,309,597	10.9	.....	.....
January.....	181,569	1.5	.....	.....
February.....	619,083	5.2	.....	.....
March.....	789,502	6.6	.....	.....
April.....	927,285	7.7	.....	.....
May.....	1,563,032	13.0	.....	.....
June.....	1,264,046	10.6	.....	.....
Total.....	11,985,807	100.0	.....	.....

## CHICAGO, ILL.

July.....	12,898,600	35.4	2,541,900	10,356,700
August.....	8,850,500	24.3	7,251,900	1,598,600
September.....	2,977,800	8.2	3,225,600	* 247,800
October.....	2,067,900	5.7	2,332,800	* 264,900
November.....	1,593,100	4.4	1,789,500	* 196,400
December.....	1,086,100	3.0	1,319,600	* 233,500
January.....	562,900	1.5	1,089,900	* 527,000
February.....	1,359,200	3.7	709,900	649,300
March.....	1,421,300	3.9	1,143,000	278,300
April.....	970,000	2.7	1,767,450	* 797,450
May.....	2,099,400	5.8	3,704,200	* 1,604,800
June.....	506,300	1.4	2,127,200	* 1,620,900
Total.....	36,393,100	100.0	29,002,950	7,390,150

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WHEAT—Continued.

CINCINNATI, OHIO.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	468,162	16.6	197,546	270,616
August.....	245,120	8.7	227,736	17,384
September.....	323,430	11.5	132,843	190,587
October.....	334,000	11.8	83,736	250,264
November.....	201,180	7.1	54,850	146,330
December.....	138,452	4.9	151,062	* 12,610
January.....	160,384	5.7	172,163	* 11,779
February.....	247,012	8.7	211,796	35,216
March.....	175,046	6.2	236,062	* 61,016
April.....	227,348	8.0	213,318	14,030
May.....	158,462	5.6	121,457	37,005
June.....	145,726	5.2	129,000	16,726
Total.....	2,824,322	100.0	1,931,569	892,753

## CLEVELAND, OHIO.

July.....	153,746	11.6	13,861	139,885
August.....	221,641	16.7	14,104	207,477
September.....	73,246	5.5	22,762	50,484
October.....	146,437	11.0	19,178	127,259
November.....	112,192	8.5	132,608	* 20,416
December.....	28,480	2.1	21,469	7,011
January.....	45,960	3.5	28,468	17,492
February.....	30,718	2.3	26,646	4,072
March.....	47,912	3.6	27,724	20,188
April.....	22,092	1.7	38,407	* 16,315
May.....	141,602	10.7	41,685	99,917
June.....	302,919	22.8	52,246	250,673
Total.....	1,326,945	100.0	439,218	887,727

## DETROIT, MICH.

July.....	313,112	11.1	9,412	303,700
August.....	389,882	13.8	36,520	353,362
September.....	389,942	13.8	65,027	324,915
October.....	518,370	18.3	66,414	451,955
November.....	198,687	7.0	17,117	181,570
December.....	284,086	10.0	18,812	265,274
January.....	97,738	3.4	15,927	81,811
February.....	298,422	10.5	43,597	254,825
March.....	70,384	2.5	51,068	19,316
April.....	40,548	1.4	71,503	* 30,955
May.....	120,000	4.2	8,000	112,000
June.....	113,000	4.0	5,000	108,000
Total.....	2,834,180	100.0	408,397	2,425,783

## DULUTH, MINN.

July.....	1,035,354	3.4	2,538,541	* 1,503,187
August.....	1,149,017	3.7	973,466	175,551
September.....	6,621,230	21.6	3,164,068	3,457,162
October.....	9,320,579	30.4	4,481,488	4,839,091
November.....	5,716,182	18.7	5,876,442	* 160,260
December.....	2,227,030	7.3	2,088,370	138,660
January.....	663,608	2.2	142,635	520,973
February.....	567,582	1.9	73,295	494,287
March.....	772,133	2.5	123,413	648,720
April.....	794,424	2.6	183,040	611,384
May.....	717,693	2.4	4,562,569	* 3,844,876
June.....	1,022,090	3.3	1,363,580	* 341,490
Total.....	30,606,922	100.0	25,570,907	5,036,015

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WHEAT—Continued.

## INDIANAPOLIS, IND.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	806,000	16.2	227,000	579,000
August.....	599,000	12.1	216,000	383,000
September.....	458,000	9.2	269,000	189,000
October.....	348,000	7.0	193,000	155,000
November.....	467,000	9.4	167,000	300,000
December.....	312,000	6.3	215,000	97,000
January.....	402,000	8.1	250,800	151,200
February.....	420,000	8.5	223,200	196,800
March.....	398,400	8.0	225,600	172,800
April.....	222,000	4.5	237,600	* 15,600
May.....	177,600	3.6	212,000	* 34,400
June.....	355,200	7.1	207,600	147,600
Total.....	4,965,200	100.0	2,643,800	2,321,400

## KANSAS CITY, MO.

July.....	6,603,600	28.0	1,435,200	5,168,400
August.....	3,832,800	16.2	1,987,200	1,845,600
September.....	3,196,800	13.5	2,445,600	751,200
October.....	2,714,400	11.5	1,596,000	1,118,400
November.....	1,215,600	5.2	1,315,200	* 99,600
December.....	519,600	3.5	770,400	49,200
January.....	1,069,200	4.5	1,149,600	* 80,400
* February.....	1,660,800	7.0	1,316,400	344,400
March.....	357,600	1.5	1,834,400	* 1,476,800
April.....	836,400	3.5	1,490,400	* 654,000
May.....	882,000	3.7	1,303,200	* 421,200
June.....	436,800	1.9	826,800	* 390,000
Total.....	23,625,600	100.0	17,470,400	6,155,200

## LITTLE ROCK, ARK.

July.....	101,000	71.1	.....	101,000
August.....	15,000	10.6	5,000	10,000
September.....	4,000	2.8	6,000	* 2,000
October.....	1,000	.7	29,000	* 28,000
November.....	11,000	7.8	11,000	.....
December.....	1,000	.7	16,000	* 15,000
January.....	5,000	3.5	23,000	* 18,000
February.....	2,000	1.4	10,000	* 8,000
March.....	.....	.....	18,000	* 18,000
April.....	.....	.....	.....	.....
May.....	2,000	1.4	.....	2,000
June.....	.....	.....	.....	.....
Total.....	142,000	100.0	118,000	24,000

## LOUISVILLE, KY.

July.....	1,006,955	18.9	12,600	994,355
August.....	533,990	10.0	42,180	491,810
September.....	462,465	8.7	31,585	430,880
October.....	655,860	12.3	30,335	625,525
November.....	370,485	7.0	15,995	354,490
December.....	275,314	5.2	12,095	263,219
January.....	349,765	6.6	365	349,400
February.....	374,400	7.0	18,265	356,135
March.....	294,765	5.5	15,915	278,850
April.....	344,630	6.5	13,165	331,465
May.....	560,085	10.5	3,127	556,958
June.....	95,950	1.8	800	95,150
Total.....	5,324,664	100.0	196,427	5,128,237

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

**WHEAT—Continued.**  
**MILWAUKEE, WIS.**

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	436,180	5.1	141,640	294,540
August.....	1,406,250	16.5	157,847	1,248,403
September.....	1,509,370	17.8	731,176	778,194
October.....	957,110	11.3	572,710	384,400
November.....	940,160	11.1	415,270	524,890
December.....	509,630	6.0	463,076	46,554
January.....	344,400	4.0	76,442	267,958
February.....	642,850	7.6	76,566	566,284
March.....	508,100	6.0	103,500	404,600
April.....	221,950	2.6	342,350	*120,400
May.....	518,650	6.1	298,712	219,938
June.....	502,640	5.9	31,550	471,090
Total.....	8,497,290	100.0	3,410,839	5,086,451

**MINNEAPOLIS, MINN.**

July.....	5,218,600	5.4	2,312,340	2,906,260
August.....	6,662,000	6.9	2,342,230	4,319,770
September.....	13,810,480	14.2	2,096,680	11,713,800
October.....	13,726,750	14.2	2,011,070	11,715,680
November.....	12,723,950	13.1	2,111,900	10,612,050
December.....	11,176,330	11.5	2,159,610	9,016,720
January.....	8,101,510	8.4	1,591,630	6,509,880
February.....	7,522,440	7.8	1,819,110	5,703,330*
March.....	6,894,160	7.1	2,045,720	4,848,440
April.....	3,995,200	4.1	2,678,080	1,317,120
May.....	3,686,160	3.8	2,138,930	1,547,230
June.....	3,372,310	3.5	2,236,640	1,135,670
Total.....	96,889,890	100.0	25,543,940	71,345,950

**NEWPORT NEWS, VA.**

July.....	55,609	24.5	.....	55,609
August.....	57,583	25.4	.....	57,583
September.....	80,164	35.3	.....	80,164
October.....	6,828	3.0	.....	6,828
November.....	1,635	.7	.....	1,635
December.....	1,128	.5	.....	1,128
January.....	2,436	1.1	.....	2,436
February.....	11,476	5.0	.....	11,476
March.....	4,670	2.1	.....	4,670
April.....	3,416	1.5	.....	3,416
May.....	2,000	.9	.....	2,000
June.....	.....	.....	.....	.....
Total.....	226,945	100.0	.....	226,945

**NEW ORLEANS, LA.**

July.....	189,000	28.3	60,590	128,410
August.....	183,000	27.4	280,000	197,000
September.....	95,000	14.2	32,013	62,987
October.....	4,000	.6	123,169	119,169
November.....	20,000	3.0	2,011	17,989
December.....	16,000	2.4	33,799	17,799
January.....	47,000	7.1	21,680	25,320
February.....	19,000	2.9	58,625	39,625
March.....	31,000	4.6	69,926	38,926
April.....	32,000	4.8	49,336	17,336
May.....	5,000	.8	1,000	4,000
June.....	26,000	3.9	84,982	58,982
Total.....	667,000	100.0	817,131	150,131

\* Excess of shipments over receipts.

1 Excess of shipments over receipts; returns apparently incomplete.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WHEAT—Continued.

## NEW YORK, N. Y.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....	2,519,400	6.8		
August.....	4,361,500	11.7		
September.....	2,242,200	6.0		
October.....	4,814,100	12.9		
November.....	4,586,200	12.3		
December.....	2,899,200	7.8		
January.....	530,400	1.4		
February.....	853,000	2.3		
March.....	1,834,800	4.9		
April.....	2,906,800	7.8		
May.....	6,799,200	18.3		
June.....	2,904,300	7.8		
Total.....	37,251,100	100.0		

## OMAHA, NEBR.

July.....	2,203,200	17.5	613,000	1,590,200
August.....	1,640,400	13.0	1,110,000	530,400
September.....	1,689,600	13.4	1,243,000	446,600
October.....	1,438,800	11.4	1,260,000	178,800
November.....	801,600	6.3	638,000	163,600
December.....	710,400	5.6	527,100	183,300
January.....	824,400	6.5	604,000	220,400
February.....	818,400	6.5	613,000	205,400
March.....	518,400	4.1	448,000	70,400
April.....	676,800	5.4	438,000	238,800
May.....	996,000	7.9	1,060,800	* 64,800
June.....	303,600	2.4	308,400	* 4,800
Total.....	12,621,600	100.0	8,863,300	3,758,300

## PEORIA, ILL.

July.....	388,263	25.7	293,480	94,783
August.....	273,703	18.1	246,413	27,290
September.....	115,000	7.6	87,883	27,117
October.....	88,000	5.8	55,668	32,332
November.....	87,000	5.8	40,000	47,000
December.....	65,333	4.3	53,000	12,333
January.....	48,035	3.2	38,358	9,677
February.....	71,000	4.7	59,000	12,000
March.....	65,000	4.3	73,000	* 8,000
April.....	82,800	5.5	75,127	7,673
May.....	123,000	8.2	57,000	66,000
June.....	102,388	6.8	22,000	80,388
Total.....	1,509,522	100.0	1,100,929	408,593

## PHILADELPHIA, P. A.

July.....	1,371,533	7.7		
August.....	2,004,294	11.2		
September.....	716,054	4.0		
October.....	1,635,452	9.1		
November.....	2,193,958	12.3		
December.....	2,620,392	14.6		
January.....	1,064,792	6.0		
February.....	346,932	1.9		
March.....	397,872	2.2		
April.....	783,210	4.4		
May.....	3,513,361	19.6		
June.....	1,255,720	7.0		
Total.....	17,903,570	100.0		

\* Excess of shipments over receipts.



Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WHEAT—Continued.

## PORTLAND, OREG. (BY WATER).

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding ex- ports.	Net receipts.
	Quantity.	Relative monthly.		
	Bushels.	Per cent.	Bushels.	Bushels.
July.....			185,931	
August.....			241,140	
September.....			167,242	
October.....			278,793	
November.....			282,725	
December.....			195,317	
January.....			159,833	
February.....			168,033	
March.....			162,662	
April.....			260,251	
May.....			608,154	
June.....			271,994	
Total.....			2,982,075	

## ST. LOUIS, MO.

July.....	4,658,262	31.0	1,058,470	3,599,792
August.....	1,752,319	11.0	1,422,660	329,659
September.....	1,286,837	8.6	1,165,230	121,607
October.....	1,402,700	9.3	1,081,150	321,550
November.....	937,917	6.2	916,520	21,397
December.....	764,136	5.1	1,119,520	*355,384
January.....	856,900	5.7	1,045,890	*188,990
February.....	951,600	6.3	1,401,840	*450,240
March.....	616,953	4.1	1,102,400	*485,447
April.....	539,356	3.6	1,121,860	*582,504
May.....	780,456	5.2	855,420	*74,964
June.....	498,379	3.3	498,940	*561
Total.....	15,045,815	100.0	12,789,900	2,255,915

## SAN FRANCISCO, CAL.

July.....	231,141	3.9	377	230,764
August.....	300,366	5.1	26,856	273,510
September.....	538,513	9.1	231,179	307,334
October.....	734,403	12.4	112,071	622,332
November.....	746,736	12.6	129,098	617,638
December.....	458,572	7.7	306	458,266
January.....	440,517	7.4	11,982	428,535
February.....	362,752	6.1	241	362,511
March.....	381,890	6.4	8	381,882
April.....	528,290	8.9	437	527,853
May.....	796,557	13.4	11,983	784,574
June.....	413,755	7.0	467	413,288
Total.....	5,933,492	100.0	525,005	5,408,487

## SEATTLE, WASH.

July.....			43,018	
August.....			38,236	
September.....			70,613	
October.....			86,980	
November.....			70,786	
December.....			67,919	
January.....			21,533	
February.....			38,628	
March.....			20,201	
April.....			41,943	
May.....			72,990	
June.....			93,580	
Total.....			666,427	

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WHEAT—Continued.

## TACOMA, WASH.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>
July.....			49,989	
August.....			11,565	
September.....			108,699	
October.....			94,105	
November.....			96,433	
December.....			72,082	
January.....			534,989	
February.....			76,008	
March.....			101,200	
April.....			314,332	
May.....			185,476	
June.....			114,977	
Total.....			1,759,555	

## TOLEDO, OHIO.

July.....	2,690,000	36.3	584,500	2,105,500
August.....	1,306,000	17.7	1,127,700	178,300
September.....	685,000	9.2	405,200	279,800
October.....	428,000	5.8	119,300	308,700
November.....	358,000	4.9	169,400	188,600
December.....	148,000	2.0	190,000	*12,000
January.....	230,000	3.1	105,500	124,500
February.....	291,000	3.9	94,900	196,100
March.....	194,000	2.6	123,600	70,400
April.....	74,000	1.0	312,100	*238,100
May.....	822,300	11.1	594,700	227,600
June.....	180,000	2.4	242,500	*62,500
Total.....	7,406,300	100.0	4,039,400	3,366,900

## WICHITA, KANS.

July.....	1,449,600	18.9	889,500	562,100
August.....	1,195,700	15.6	601,700	594,000
September.....	1,051,600	13.7	391,600	660,000
October.....	944,900	12.4	624,800	320,100
November.....	476,300	6.2	170,500	305,800
December.....	345,200	4.5	90,000	255,200
January.....	390,000	5.1	165,000	225,000
February.....	533,000	7.0	210,000	323,000
March.....	213,000	2.8	95,000	118,000
April.....	312,800	4.1	187,900	124,900
May.....	480,000	6.2	260,400	219,600
June.....	270,000	3.5	90,000	180,000
Total.....	7,660,100	100.0	3,773,700	3,886,400

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 2912.—Continued.

## WOOL.

BOSTON, MASS.<sup>1</sup>

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destina- tions, in- cluding exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	55,807,093	17.3	14,159,999	41,647,094
August.....	49,441,092	15.4	18,579,613	30,861,479
September.....	20,598,348	6.4	18,600,924	1,997,424
October.....	16,041,085	5.0	19,559,063	* 3,517,978
November.....	16,249,460	5.1	19,533,845	* 3,284,385
December.....	16,068,908	5.0	21,101,694	* 5,032,786
January.....	16,714,496	5.2	28,670,614	* 11,956,118
February.....	21,333,061	6.6	23,778,625	* 2,445,564
March.....	26,722,480	8.3	17,073,998	9,648,482
April.....	22,329,265	6.9	19,131,253	3,198,012
May.....	28,786,677	8.9	29,773,967	* 987,290
June.....	31,867,829	9.9	22,927,278	8,940,551
Total.....	321,959,794	100.0	252,890,873	69,068,921

## CHICAGO, ILL.

July.....	21,198,000	31.0	31,459,100	* 10,261,100
August.....	17,199,800	25.2	19,249,600	* 2,049,800
September.....	4,202,100	6.1	8,701,600	* 4,499,500
October.....	1,497,100	2.2	7,302,700	* 5,805,600
November.....	1,400,500	2.0	5,744,500	* 4,344,000
December.....	1,569,300	2.3	6,251,800	* 4,682,500
January.....	929,500	1.4	4,811,900	* 3,882,400
February.....	1,179,400	1.7	4,765,300	* 3,585,900
March.....	314,300	.5	3,205,200	* 2,890,900
April.....	1,456,700	2.1	4,240,900	* 2,784,200
May.....	3,644,800	5.3	6,615,600	* 2,970,800
June.....	13,793,000	20.2	18,690,500	* 4,897,500
Total.....	68,384,500	100.0	121,038,700	* 52,654,200

## CINCINNATI, OHIO.

	<i>Bags.</i>	<i>Per cent.</i>	<i>Bags.</i>	<i>Bags.</i>
July.....	9,294	13.2	7,018	2,276
August.....	6,651	9.5	5,637	1,014
September.....	4,227	6.0	4,688	* 461
October.....	2,842	4.0	4,002	* 1,160
November.....	2,873	4.1	2,131	742
December.....	4,879	7.0	5,675	* 796
January.....	3,071	4.4	1,131	1,940
February.....	2,416	3.4	3,389	* 973
March.....	6,227	8.9	5,662	565
April.....	4,456	6.3	5,747	* 1,291
May.....	4,619	6.6	24,528	* 19,909
June.....	18,684	26.6	17,089	1,595
Total.....	70,239	100.0	86,697	* 16,458

## INDIANAPOLIS, IND.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....			90,000	
August.....	30,000			
September.....			30,000	
October.....				
November.....				
December.....				
January.....			150,000	
February.....				
March.....				
April.....				
May.....			90,000	
June.....				
Total.....	30,000		360,000	

<sup>1</sup> Receipts and shipments at Boston include both foreign and domestic wool.

\* Excess of shipments over receipts.

Monthly receipts and shipments of farm products at trade centers, as shown in commercial reports, for the year ending June 30, 1912—Continued.

## WOOL—Continued.

## LOUISVILLE, KY.

Month.	Receipts, domestic, all sources.		Shipments, domestic, all destinations, including exports.	Net receipts.
	Quantity.	Relative monthly.		
	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	188,830	3.1	647,635	* 478,808
August.....	292,440	5.4	637,180	* 344,740
September.....	179,465	3.3	715,487	* 536,082
October.....	131,410	2.5	510,352	* 378,942
November.....	276,375	5.1	340,577	* 64,202
December.....	660,295	12.2	232,845	427,450
January.....	430,630	8.0	453,802	* 23,172
February.....	404,080	7.5	353,937	50,143
March.....	177,895	3.3	139,370	38,525
April.....	102,525	1.9	102,603	* 78
May.....	1,550,100	28.7	116,362	1,433,738
June.....	1,026,530	19.0	935,830	90,700
Total.....	5,400,515	100.0	5,185,980	214,535

## PORTLAND, OREG. (BY WATER).

	<i>Bales.</i>	<i>Per cent.</i>	<i>Bales.</i>	<i>Bales.</i>
July.....			1,213	
August.....			1,104	
September.....			289	
October.....			497	
November.....			75	
December.....			349	
January.....			113	
February.....	120		59	
March.....	213		37	
April.....	6		383	
May.....	81		1,398	
June.....	62		1,241	
Total.....	482		6,668	

## ST. LOUIS, MO.

	<i>Pounds.</i>	<i>Per cent.</i>	<i>Pounds.</i>	<i>Pounds.</i>
July.....	6,033,160	25.1	3,176,400	2,856,760
August.....	2,355,120	9.8	4,320,300	* 1,965,180
September.....	1,398,930	5.8	2,402,200	* 1,003,270
October.....	342,100	1.4	2,188,300	* 1,846,200
November.....	586,290	2.5	3,423,800	* 2,837,510
December.....	452,590	1.9	2,676,100	* 2,223,510
January.....	249,250	1.0	3,953,300	* 3,704,050
February.....	254,410	1.1	3,127,700	* 2,873,290
March.....	152,770	.6	1,501,700	* 1,348,930
April.....	1,079,220	4.5	2,518,200	* 1,438,980
May.....	5,146,230	21.5	2,865,600	2,280,630
June.....	5,948,160	24.8	3,103,400	2,844,760
Total.....	23,998,230	100.0	35,257,000	*11,258,770

## SAN FRANCISCO, CAL.

	<i>Sacks.</i>	<i>Per cent.</i>	<i>Sacks.</i>	<i>Sacks.</i>
July.....	2,818	4.8		
August.....	3,101	5.3		
September.....	2,369	4.0		
October.....	3,711	6.3		
November.....	6,268	10.7		
December.....	2,768	4.7		
January.....	5,327	9.1		
February.....	4,282	7.3		
March.....	4,738	8.0		
April.....	4,805	8.2		
May.....	7,961	13.5		
June.....	10,640	18.1		
Total.....	58,788	100.0		

\* Excess of shipments over receipts.

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