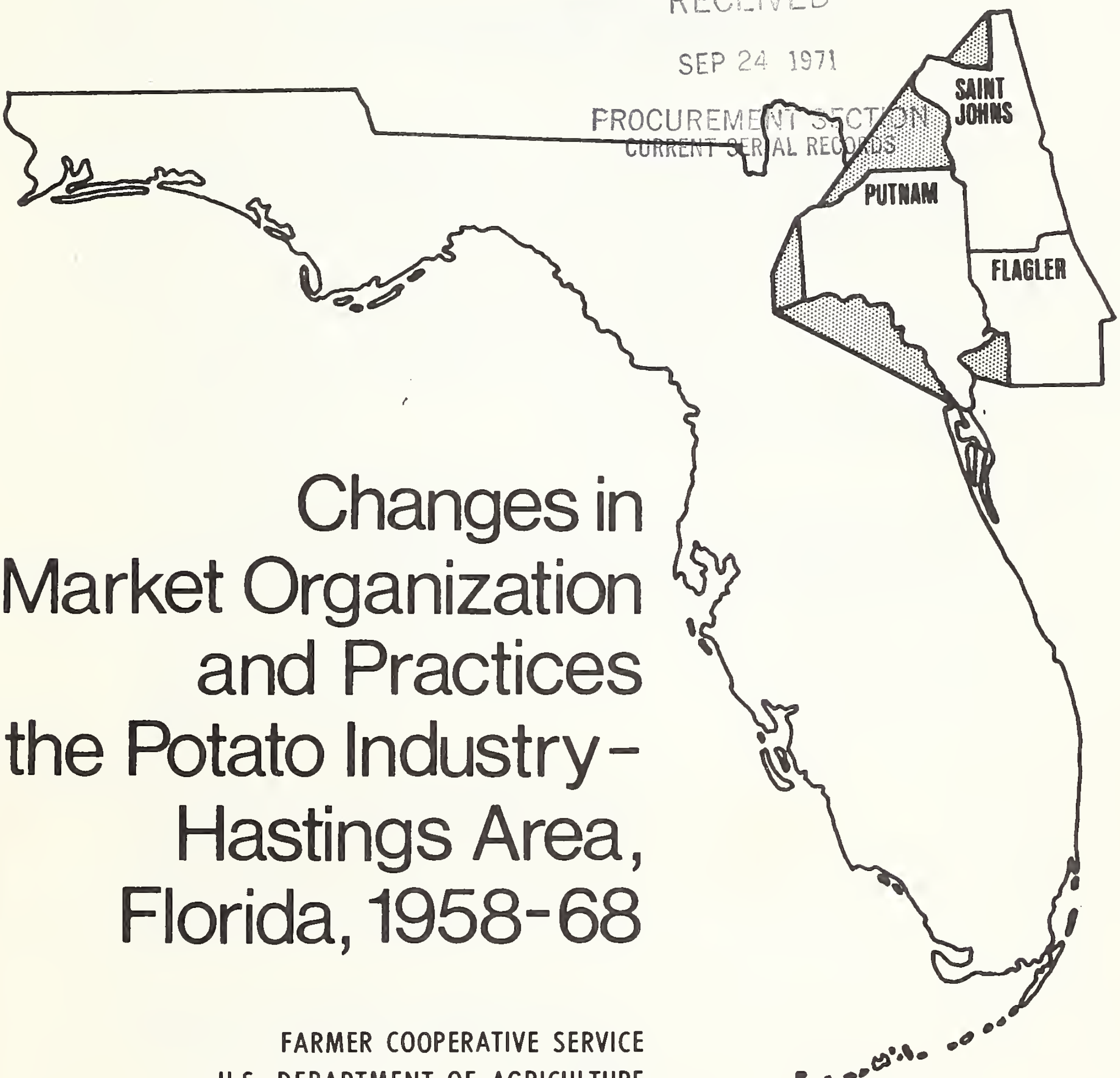
FCS RESEARCH REPORT NO. 15



Changes in Market Organization and Practices of the Potato Industry - Hastings Area, Florida, 1958-68

FARMER COOPERATIVE SERVICE
U.S. DEPARTMENT OF AGRICULTURE
IN COOPERATION WITH
INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES
FLORIDA AGRICULTURAL EXPERIMENT STATIONS
GAINESVILLE, FLORIDA

UNITED STATES DEPARTMENT OF AGRICULTURE
FARMER COOPERATIVE SERVICE
Washington, D.C. 20250

Farmer Cooperative Service conducts research, advises directly with cooperative leaders and others, promotes cooperative organization and development through other Federal and State agencies, publishes results of its research, and issues *News for Farmer Cooperatives* and other educational material.

This work is aimed (1) to help farmers get better prices for their products and reduce operating expenses, (2) to help rural and small-town residents use cooperatives to develop rural resources, (3) to help these cooperatives expand their services and operate more efficiently, and (4) to help all Americans understand the work of these cooperatives.

Work on this project was conducted by the University of Florida, Institute of Food and Agricultural Sciences, Department of Agriculture, Gainesville, under contract with the U.S. Department of Agriculture, Farmer Cooperative Service, New Services Division, Washington, D.C. 20250.

FCS Research Report 15 August 1970

ERRATA

Research Report No. 15, "Changes in Market Organization and Practices of the Potato Industry-Hastings Area, Florida, 1958-68"

Page iii - Paragraph 1, line 2
Reads "....Flager, Putnam, and St. Johns Counties.
Should read "....Flagler, Putnam, and St. Johns Counties.

Page 5 - Picture caption
Reads "...mashing and grading equipment.
Should read "...washing and grading equipment.

Page 31 - Paragraph 1, line 2
Reads "....the 1957/58 and 1967/67 marketing seasons,....
Should read "....the 1957/58 and 1967/68 marketing seasons,....

Paragraph 2, line 3
Reads "....Flager, Putnam, and St. Johns Counties.
Should read "...Flagler, Putnam, and St. Johns Counties.

CONTENTS

HIGHLIGHTS

Potato production is becoming more specialized in the Hastings area of Florida—Flager, Putnam, and St. Johns Counties. In the 1967/1968 season, an estimated 28,300 acres of potatoes were planted, of which 3 percent were not harvested. The estimated total volume of potatoes sold was 4,384,000 hundredweights, or an average of 160 hundredweights per acre.

Changes occurred between the 1957/58 and 1967/68 seasons in crop financing, contract production, marketing channels, and attitudes and practices of growers and handlers. This report compares industry data obtained for the 1967/68 season with data obtained 10 years earlier; evaluates attempts to improve marketing over the 10 years; and suggests further modifications in market organization and practices that might help all segments of the industry obtain improved results.

Financing is an important aspect of the industry. In the 1967/68 season, the proportion of growers obtaining loans varied from 100 percent for small farmers to 86 percent for large farmers. The average loan was $177 per planted acre. Production credit associations were the most important source of credit, accounting for about one-third of all credit extended. Marketing cooperatives were the second most important source. The Farmers Home Administration (FHA) extended a number of emergency loans to small farmers in 1968, but did not make any loans to large farmers that season. The proportion of loans made by various lending agencies varied between 1958 and 1968, largely because of the emergency loans made in 1968 by FHA. Marketing cooperatives experienced the largest relative decrease as a source of loans between the two seasons.

Growing potatoes under contract is widely practiced in the Hastings area. In the 1967/68 season, 139 growers—75 percent—had production contracts. Volume contracted was equal to 45 percent of total production on farms that had contracts, compared with 32 percent in the 1957/58 season. The majority of the contracts specified that the potatoes grade 85 percent or more U.S. No 1, size A. The contract price was a flat rate per hundredweight; the most usual price was $3.25 per hundredweight.

Three important changes occurred in contracting between the 1957/58 and 1967/68 seasons. The total number and proportion of farmers having contracts increased. Contract production as a percentage of total production on the individual farm increased. And a new type of contracting appeared—handlers subcontracting with growers for whom they sold. The terms of these contracts and grower-buyer contracts were similar. Subcontracts with growers were made on the basis of the number of bags of potatoes the grower wanted to supply.

Although there were three types of handlers in the area—growers, cooperatives, and other agents—85 percent of the growers patronized only one type of handler in the 1967/68 season. In that season, an estimated 32 percent of total potato sales was handled by grower-handlers, 24 percent by marketing cooperatives, and 45 percent by other agents. Percentages of sales for these groups in 1957/58 were 29, 33, and 38, respectively.

Between the two seasons, the proportion of potatoes bought by processors increased substantially. Also, the advent of the processor-supplier had a marked impact on the proportion of sales going to various type buyers. In the 1957/58 season, retailers accounted for 17 percent of sales, but only 2 percent in the 1967/68 season. Sales to wholesalers were 22 and 15 percent for the two periods, respectively. Sales to processors accounted for 38 percent of sales in 1957/58 and 37 percent in 1967/68. In the later period, however, sales to processor-suppliers accounted for 40 percent of total sales.

For all handlers in 1967/68, 23 percent of total sales went to the fresh and 77 percent to the processed market. The distribution for all handlers 10 years earlier was 38 and 62 percent, respectively.

Two marketing cooperatives—the Hastings Potato Growers Association and the Florida Planters, Inc.,—operate in the Hastings area. In 1968, 28 percent of all growers were members of the Hastings Potato Growers Association and 11 percent were members of Florida Planters. Almost half the growers thought membership in a marketing cooperative helped in selling their crop and about a fourth said it helped in financing the crop and enabled one to get supplies cheaper. About two-thirds thought the associations should increase their membership.

The North Florida Growers Exchange, an areawide cooperative that coordinates potato sales, operated in the Hastings area for the first time in the 1967/68 marketing season. Eighty-seven percent of the growers were members of the exchange. The exchange's main objective is to stabilize the daily price for area potatoes and provide growers and handlers more information about the market. Growers believed that the exchange had a favorable effect on the potato market during the early part of the production season. They thought it was ineffective during the later part of the season because too many potatoes not under the control of the exchange were put on the market.

Growers thought that the most critical problems facing the Hastings area potato industry were too many potatoes, low prices for potatoes in relation to production costs, and marketing.

Forty-nine percent of the growers in 1967/68 thought the volume of potatoes grown in the Hastings area should be decreased. However, 47 percent would not favor a regulation to control the volume of potatoes grown. With respect to a grade regulation, 37 percent said they would favor such a regulation. Eleven percent said a regulation was needed for the fresh market but not for the chip market.

Most growers in both the 1957/58 and 1967/68 seasons believed it desirable to have fewer sellers in the area. Growers thought that a large number of handlers created excessive competition in sales. They said that handlers have to cut prices to get a share of the market, and that with fewer handlers, it would be easier to maintain a firm price.

About 78 percent of the growers in 1967/68 and about 65 percent in 1957/58 thought the quantity of potatoes going to the fresh market, relative to the processed market, should be increased. In 1967/68, growers' suggestions for increasing fresh market sales included digging a more mature potato, growing a variety more suitable for the fresh market, and packing a better quality pack. Suggestions in 1957/58 included quality improvement, advertising, better sales organization, and a greater output of potatoes in consumer packages.

The combined influence of a number of factors has resulted in difficult marketing problems for the Hastings area. Three approaches that might help the situation are Federal marketing agreement and order programs, a central sales agency, and grower bargaining associations. Approaches such as these involve group action, and there are characteristics of the Hastings area that would need to be considered before implementing any program that would involve such group action.

Producers in the area are highly independent—especially large growers who do their own packing and selling—and they tend to consider group action only after seasons of low prices. Because growers tend to view their problems from a short-term consideration, benefits from any industry group action are not likely to accrue rapidly. In this respect, a deciding factor in successful group action would be growers and sellers' willingness to recognize and act in accordance with the long-run interests of the industry.

Also, buyers and sellers must realize that group action involves the surrender of a certain amount of freedom of operation; some would be forced to comply with regulations against their will and possibly to their individual disadvantage. A majority of buyers and sellers would need to conclude that their interests could best be served through working together for betterment of the industry.

CHANGES IN MARKET ORGANIZATION AND PRACTICES OF THE POTATO INDUSTRY— HASTINGS AREA, FLORIDA, 1958-68

By R. E. L. Greene*

The Hastings potato area consists of those portions of three adjoining counties—Flagler, Putnam, and St. Johns—in which potatoes are grown commercially. Normally about one-half the production in the area is in St. Johns County. The remainder is about equally divided between Flagler and Putnam Counties. Approximately 85 to 90 percent of the Florida spring crop acreage is located in the Hastings area.

Potato production in the area fluctuates widely from season to season depending on total acres harvested and yield per acre (table 1). Production in the 1967/68 marketing season was 4,384,000 hundredweights—75 percent above the 2,500,000 hundredweights produced in 1958/59. During 1959-68, production varied from 2,376,000 hundredweights in 1967 to 4,674,000 hundredweights in 1963. The value of potatoes marketed varied from a low of $7,484,000 in 1967 to a high of $18,529,000 in the 1965 season.

Table 1.—Acreage, yield, production, price per unit, and value of potatoes, Hastings area of Florida, 1958/59-1967/68[1]

Marketing year	Acres harvested	Yield per acre	Production	Price per cwt.	Total value
	Acres	*Cwt.*	*1,000 cwt.*	*Dollars*	*1,000 dollars*
1958/59	21,500	125	[2]2,500	3.08	7,700
1959/60	22,800	125	2,850	3.80	10,830
1960/61	21,000	190	3,990	2.09	8,339
1961/62	20,700	145	3,002	3.19	9,576
1962/63	24,600	190	4,674	2.38	11,124
1963/64	23,800	160	3,808	3.43	13,061
1964/65	27,800	155	4,309	4.30	18,529
1965/66	30,000	145	4,350	3.24	14,094
1966/67	21,600	110	2,376	3.15	7,484
1967/68	27,400	160	4,384	3.16	13,853

[1]Florida Agricultural Statistics, Vegetable Summary 1968, Fla. Crop and Livestock Rptg. Serv., Orlando, Fla.

[2]388,000 cwt. not harvested.

PURPOSE OF STUDY

The Hastings potato industry has experienced a wide range of economic problems and changes in status over the past two decades. These have included a marked change in production from one year to the next; an increase in the size of potato farms, with a decrease in the number of farms; an increase in capital requirements; a great increase in the volume of potatoes sold to processors; and unorganized competition at both the

*Agricultural Economist, Agricultural Economics Department, Florida Agricultural Experiment Station, Gainesville.

grower and shipping point levels. These factors, in conjunction with prevailing marketing methods and practices, have often resulted in prices below costs of production for some growers and selling margins below costs of distribution for some shippers.

Following the low returns of the 1956/57 and 1957/58 seasons, industry representatives requested that the Florida Agricultural Experiment Station initiate a study of factors associated with unsatisfactory returns. Study findings were reported in Florida Agricultural Experiment Station Bulletin 668, *Market Organization and Practices for Potatoes in the Hastings Area of Florida*, dated March 1964. That study identified selected characteristics of the industry and attitudes of industry members that have contributed to marketing difficulties. It also evaluated possibilities and probable effects of alternative group action on the part of the industry.

The primary objectives of the present report are: (1) to delineate and evaluate changes in the industry since the 1957/58 marketing season, (2) to summarize and evaluate attempts to improve marketing over the past decade, and (3) to suggest further modifications in market organization and practices that may help all segments of the industry obtain improved returns.

RESEARCH PROCEDURE

Data covering the 1967/68 marketing season were obtained from interviews with growers and handlers.[1] The grower universe included 185 farms that were stratified into three size groups: Small, less than 100 acres of potatoes; medium, 100 to 249 acres; and large, 250 acres or more.[2] Information was obtained from 16 small, 29 medium-size, and 21 large farms on production, financing, packing, and marketing, and on opinions regarding certain production and marketing practices.

Since a complete list of handlers was not available, a probability sample of them could not be obtained. A list of handlers was prepared, however, from information obtained from growers who reported the handler for their potatoes. Data from the seven largest handlers were summarized to show distribution of potato sales by grade and size, utilization for the fresh or processed market, and type of buyer.

A more detailed discussion of the research procedure is included in the appendix.

SELECTED FARM CHARACTERISTICS

This section discusses selected farm characteristics, acreage planted and harvested, and quantity of potatoes sold by farm size. Sample totals were expanded to represent all farms in the area.

NUMBER OF FARMS

Potato production in the Hastings area is becoming increasingly specialized and concentrated. While the number of production units has declined sharply, the average size of farm has increased (table 2).

The number of farms producing potatoes declined from 269 in 1957/58 to 185 in 1967/68. All of the decline was in the small size group. Farms reporting less than 100 acres of potatoes constituted 68 percent of the total number of farms in 1958, compared with 41 percent in 1968. On the other hand, farms with 250 acres or more represented only 9 percent of the total in 1958, compared with 20 percent in 1968.

In terms of planted acreage, 32 percent of the 1957/58 crop was grown on small farms, compared with 13 percent in 1967/68. Potato acreage on large farms increased from 35 to 48 percent of the total between the two periods.

[1] "Handler" is the term most commonly used in the Hastings area to designate persons who perform the sales function. The term "grower-handler" is used to designate producers who sell their own potatoes.

[2] To facilitate a comparison between years, the same size groups were used in 1967/68 as were used in 1957/58.

Two-row mechanical harvester operating in the field.

Table 2.—Number of potato growers and acreage planted, by size of farm, Hastings area of Florida, 1957/58 and 1967/68

Size of farm	Growers				Acres			
	1957/58		1967/68		1957/58		1967/68	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Small	183	68	75	41	8,467	32	3,742	13
Medium	61	23	73	39	8,749	33	11,064	39
Large	25	9	37	20	9,403	35	13,494	48
Total	269	100	185	100	26,619	100	28,300	100

ACRES OF POTATOES PLANTED AND HARVESTED

An estimated 28,300 acres of potatoes were planted in the crop year 1967/68 (table 3). Of this amount, 1,100 acres were planted to the red skin type. Three percent of all planted acres were not harvested. The percentage of acres not harvested varied only slightly by farm size.

VOLUME OF SALES

Growers sold an estimated 4,384,000 hundredweights of potatoes in the Hastings area in the 1967/68 season (table 4). Average sales per harvested acre were 160 hundredweights. Estimated sales per harvested acre were 161 hundredweights of white potatoes but only 144 hundredweights of red potatoes. Producers on medium-size farms had the lowest sales per acre.

Table 3.—Estimated acres of potatoes planted and harvested, by type of potato and size of farm, Hastings area of Florida, 1967/68[1]

Size of farm	White potatoes		Red potatoes		Both types	
	Planted	Harvested	Planted	Harvested	Planted	Harvested
	Acres	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*
Small	4,122	3,816	187	187	4,309	4,003
Medium	10,556	10,446	279	279	10,835	10,725
Large	12,522	12,038	634	634	13,156	12,672
Total	27,200	26,300	1,100	1,100	28,300	27,400

[1]Computed from app. table 6.

Table 4.—Estimated hundredweights of potatoes sold, by type of potato and size of farm, Hastings area of Florida, 1967/68[1]

Size of farm	White potatoes		Red potatoes		Both types	
	Total sales	Sales per acre	Total sales	Sales per acre	Total sales	Sales per acre
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Small	598,103	157	21,992	118	620,095	155
Medium	1,582,083	151	39,466	142	1,621,549	151
Large	2,045,527	170	96,829	153	2,142,356	169
Total or average	4,225,713	161	158,287	144	4,384,000	160

[1]Computed from app. table 7.

PRODUCTION FINANCING

The ability of growers to obtain financing is an important factor influencing the acres of potatoes planted from year to year. The high cash cost per acre of growing potatoes necessitates large amounts of capital. The total cost per acre of growing potatoes averages about $299, of which $242 is a cash cost.[3] Most growers regularly depend on loans for a part of their capital requirements.

The proportion of growers obtaining loans in 1967/68 varied from 100 percent for those on small farms to 86 percent for those on large farms (table 5). The total amount of credit used was $5,001,906, or an average of $177 per planted acre (table 6). Loans varied from $221 an acre on small farms to $146 an acre on large farms.

In 1967/68, growers obtained loans from production credit associations (PCA's), marketing cooperatives, banks, the Farmers Home Administration, individuals, and others (table 7). PCA's were the most important source of credit, accounting for about one-third of all credit extended. Marketing cooperatives were the second most important source. Commercial banks, FHA, and others were of about equal importance. Commercial banks accounted for only 7 percent of the loans to growers on small farms, but 29 percent to growers on large farms. Cooperatives made 36 percent of the loans to small farmers but only 14 percent to large farmers.

Table 5.—Estimated number and percentage of growers obtaining loans for potato production, by size of farm, Hastings area of Florida, 1967/68[1]

Size of farm	Growers obtaining loans	
	Number	*Percent*
Small	75	100
Medium . . .	71	97
Large	32	86
Total or average	178	96

[1]Computed from app. table 8.

Table 6.—Estimated amount of credit used for potato production, by size of farm, Hastings area of Florida, 1967/68

Size of farm	Amount of money borrowed	
	Total[1]	Per acre[2]
	Dollars	*Dollars*
Small	950,288	221
Medium	2,133,218	197
Large	1,918,400	146
Total or average	5,001,906	177

[1]Computed from app. table 9.

[2]Calculated on basis of estimated acreage planted.

FHA extended a number of loans in the 1967/68 season. Because of the very poor potato crop in 1966/67, many growers could not obtain credit elsewhere. FHA loans were more important on small farms, accounting for about one-third of the credit extended. No FHA loans were extended to large farms.

Since credit source can influence certain production and marketing decisions, borrowers were asked to specify any production or marketing condition attached to their loan in 1967/68. Almost all growers borrowing from a PCA were required to specify the individual or

[3]Brooke, D. L. *Costs and Returns from Vegetable Crops in Florida.* Fla. Agr. Expt. Sta., Dept. Agr. Econ. Mimeo Rpt. EC 69-4, Feb. 1969.

Unloading potatoes from bulk body into elevator that carries them to mashing and grading equipment.

Table 7.—Credit used in potato production, by source of loan and size of farm, Hastings area of Florida, 1967/68[1]

Size of farm	Source of loan: PCA	Co-op	Bank	FHA	Individual	Other	All loans
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Small	232,155	340,025	65,660	312,448	0	0	950,288
Medium	1,027,845	403,200	83,160	395,590	72,223	151,200	2,133,218
Large	387,200	272,800	554,400	0	140,800	563,200	1,918,400
Total	1,647,200	1,016,025	703,220	708,038	213,023	714,400	5,001,906

[1]Computed from app. table 9.

agency that would sell their potatoes. They consistently noted that the PCA did not require that potatoes be sold to a particular handler. Growers borrowing from banks said there were no production or marketing conditions attached to their loans, although a few bankers did require that the grower specify who would sell the potatoes. Growers borrowing from farm marketing cooperatives agreed to let the association sell their potatoes. Generally, growers borrowing from individuals agreed to let the individual sell their crop. FHA did not attach any conditions to its loans other than having the grower indicate who would sell his potatoes.

The credit situation in 1967/68 differed considerably from that in 1957/58. In 1957/58, only 79 percent of the growers borrowed money for production purposes, compared with 96 percent in 1967/68. The average size loan was $233 per acre in 1957/58.

The proportion of loans by sources varied for the two periods (table 8). Marketing cooperatives experienced the largest relative decrease as a source of credit. They extended 37 percent of the total credit in 1957/58 but only 20 percent in 1967/68. Banks and "other" were relatively more important in 1967/68 than they were 10 years earlier. In 1957/58, banks accounted for only 2 percent of the loans on small farms and 29 percent on large farms. Cooperatives accounted for 45 percent of the loans on small farms and 14 percent on large farms.

The credit situation in 1967/68 was probably abnormal in at least two respects. First, FHA made a number of emergency loans because of the poor 1966/67 season. Second, also because of the poor season, many farmers were unable to pay off their loans and were limited in the amount of credit they could obtain in 1967/68. This no doubt partly explains why the amount loaned per acre in 1967/68 was about $56 less than the amount loaned in 1957/58.

Table 8.—Percentage distribution of credit used in potato production, by source of loan and size of farm, Hastings area of Florida, 1957/58 and 1967/68

Size of farm and season	Source of loan						All loans
	PCA	Co-op	Bank	FHA	Individ-ual	Other	
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Small:							
1957/58	36	45	2	0	7	10	100
1967/68	24	36	7	33	0	0	100
Medium:							
1957/58	39	38	9	0	5	9	100
1967/68	48	19	4	19	3	7	100
Large:							
1957/58	29	14	29	0	0	28	100
1967/68	20	14	29	0	7	30	100
All farms:							
1957/58	36	37	10	0	5	12	100
1967/68	33	20	14	14	4	15	100

USE OF CONTRACTS

A contract is defined as an oral or written agreement stating that the grower will produce and deliver a specified volume of potatoes to a given buyer.

CONTRACTING BY GROWERS

Potatoes were first grown under contract in the Hastings area during the 1954/55 season, when eight producers had contracts. By the 1957/58 season, the number of contract growers had increased to 65, or 24 percent of all growers in the area.

In the 1967/68 season, an estimated 139 growers—or 75 percent of the total number—grew potatoes under contract (table 9). The contracts called for delivery of 1,690,859 hundredweights of potatoes, which represented 39 percent of the area's total production. This compares with 10 percent in the 1957/58 season. The percentage of growers contracting potatoes increased with size of farm.

Contracts were normally made on the basis of a stated number of 100-pound bags per acre. Operators of small farms contracted for an average of 49 bags per acre, operators of medium farms for 63 bags, and operators of large farms, for 78 bags (table 10).

On those farms that had contracts in 1967/68, the amount contracted was 45 percent of their total production of potatoes, compared with 32 percent in 1957/58.

Table 9.—Use of potato production contracts, by size of farm, Hastings area of Florida, 1967/68[1]

Size of farm	Contract growers		Volume contracted	
	Number	*Percent*	*Hundredweight*	*Percent*
Small	47	63	142,810	23
Medium	60	82	599,886	37
Large	32	86	948,163	44
Total or average	139	75	1,690,859	39

[1] Computed from app. table 10.

Table 10.—Potato bags contracted per acre and relation of contract volume to total volume sold by contract growers, by size of farm, Hastings area of Florida, 1967/68[1]

Size of farm	Bags contracted per acre	Volume contracted	Volume contracted as percentage of contract growers' total sales
	Cwt.	*Cwt.*	*Percent*
Small	49	142,810	30
Medium	63	599,886	41
Large	78	948,163	48
Total or average . . .	71	1,690,859	45

[1]Excludes 1 farm that contracted on the basis of the number of acres.

Two important changes thus occurred in contracting at the grower level between 1957/58 and 1967/68. The total number and proportion of farm operators having contracts increased. And contract production as a percentage of total production on the individual farm increased.

Contract Specifications

Growers were asked to provide information on product and packaging specifications included in their 1967/68 contracts.

Grade and size.—About one-third of the contracts specified that the potatoes be U.S. No. 1, size A. Two-thirds specified that the contract potatoes be 85 percent, or more, U.S. No. 1, size A (table 11). Some growers whose contracts specified a U.S. No. 1 potato said their contractor allowed them to deliver a percentage grade without penalty.

The use of a percentage grade as a standard of acceptance is a distinct change in contracting between 1957/58 and 1967/68. Only 13 percent of the contract growers interviewed in 1957/58 said their contracts specified a percentage grade.

The shift to a percentage grade has lowered the quality of potatoes packed in the Hastings area and has discouraged packing potatoes for the fresh market, which requires a higher quality potato.

Price.—All prices were a flat rate per hundredweight. The most usual price was $3.25 per hundredweight. Other prices were $3.00, $3.05, $3.10, $3.15, and $3.20 per hundredweight. The variation in price was due mainly to whether the grower reported a "net price" after commission was deducted or whether the grower gave a gross price. Potatoes loaded in bulk were usually priced about 15 cents per hundredweight less than potatoes packed in 100-pound bags.

The method of pricing potatoes in 1967/68 differed from that used in 1957/58. All prices in 1967/68 were a

Table 11.—Selected potato contract specifications, by size of farm, Hastings area of Florida, 1967/68

Specification	Size of farm			All farms
	Small	Medium	Large	
	Number	*Number*	*Number*	*Number*
Grade and size:				
U.S. No. 1, Size A	13	16	16	45
85 pct. or more U.S. No. 1,Size A	13	49	32	94
Dollars per hundredweight:				
U.S. No. 1, Size A—				
$3.00	3	0	0	3
$3.10	0	3	0	3
$3.15	0	3	0	3
$3.20	0	0	7	7
$3.25	11	11	7	29
Percentage U.S. No. 1—				
$3.00	3	8	2	13
$3.05	0	3	0	3
$3.10	0	3	0	3
$3.12	0	0	3	3
$3.15	0	8	8	16
$3.20	0	3	0	3
$3.25	10	24	19	53

Table 12.—Growers' opinions of potato contract features, by size of farm, Hastings area of Florida, 1967/68

Opinion	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Features liked:					
Assured outlet for specific volume	3	8	16	27	20
Assured market	3	3	2	8	6
Can load in bulk	0	3	3	6	4
Can pack more potatoes on contract	0	3	0	3	2
Miscellaneous	0	13	11	24	17
None	21	34	16	71	51
Total	27	64	48	139	100
Features disliked:					
Low price	9	16	8	33	24
Contract price tends to set maximum market price	5	14	8	27	19
Time of delivery may force digging immature potatoes	2	5	3	10	7
Contract price works hardship in years of high prices	0	5	5	10	7
Miscellaneous	9	8	5	22	16
None	2	16	19	37	27
Total	27	64	48	139	100

flat rate per hundredweight, whereas in 1957/58 a sliding scale price was most often used. The most frequent sliding scale price in 1958 was $2.50-$3.50 per hundredweight, which meant the minimum price the farmer would receive for his potatoes would be $2.50 and the maximum price $3.50 per hundredweight. He would receive the going market price on the day of shipment if it were more than $2.50 but less than $3.50 per hundredweight.

The sliding scale was not a popular method of pricing potatoes because growers believed that contractors attempted to drive the price down to the lower level to buy potatoes at as low a price as possible.

Other characteristics.—Except for potatoes loaded in bulk, all potatoes were packed in new bags furnished by the grower. All contracts were entered into before the potatoes were planted. No change was made in contract provisions after the contracts were signed.

Opinions About Contract Growing

Although three-fourths of the growers in the Hastings area had production contracts in the 1967/68 season, many did not view contracting as a desirable practice. For example, when asked about features of the contract they particularly liked, 71 growers—51 percent—said there were no particular features they liked (table 12).

Although contracting increased between the 1957/58 and 1967/68 seasons, growers' attitudes toward contracting became less favorable. All contract growers in 1957/58 listed some feature about the contract that they particularly liked—only 49 percent did so in 1967/68. Many growers are apparently contracting a part of their production at the present time because they are afraid they would be unable to sell their crop otherwise.

When asked whether a contract encourages, discourages, or has no effect on a contractor's willingness to buy potatoes in addition to those specified in the contract, 69 percent of the growers said "encourages," 4 percent said "discourages," and 27 percent said it had "no effect" (table 13). Growers who said the contract had no effect believed that buyers contracted for all the potatoes they needed and therefore did not have to buy potatoes above the quantity contracted.

When asked for a comparison of volume contracted in the 1967/68 season with volume contracted in the 1966/67 season, 39 percent said it was the same, 30 percent said it had increased, and 25 percent said it had

Table 13.—Growers' opinions on effect of contract on buyer's willingness to buy additional potatoes, by size of farm, Hastings area of Florida, 1967/68

Opinion	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Encourages	24	40	32	96	69
Discourages	3	0	3	6	4
No effect	0	24	13	37	27
Total	27	64	48	139	100

decreased (table 14). Increased contracting was associated with increased potato acreage.

The average period growers had produced potatoes under contract was 7.1 years (table 15). This varied from 5.7 years for operators of small farms to 8.9 years for operators of large farms.

When asked whether they expected to contract their potatoes in the 1968/69 season, 79 percent said they did, and 16 percent said they did not. The number of growers expecting to contract in 1968/69 was slightly higher than the number contracting in 1967/68.

SUBCONTRACTING BY HANDLERS

A feature of contracting prevalent in 1967/68 but not in 1957/58 was the holding of contracts by handlers who subcontracted with growers for whom they sold. Each of the seven handlers included in the study had

Table 14.—Volume of potatoes contracted between 1967/68 and 1966/67, by size of farm, Hastings area of Florida

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Volume contracted in 1967/68 compared with 1966/67:					
Was the same	11	30	13	54	39
Increased	5	16	21	42	30
Decreased	11	13	10	34	25
Not ascertained	0	5	4	9	6
Total	27	64	48	139	100

Table 15.—Miscellaneous questions about potato contracting, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Years potatoes grown under contract	5.7	6.6	8.9	7.1	---
Contract expectations, 1968/69 season:					
Expect to contract	51	63	32	146	79
Do not expect to contract	19	8	3	30	16
Not growing potatoes	0	2	2	4	2
Not ascertained	5	0	0	5	3
Total	75	73	37	185	100

such contracts. Features of the grower-handler contracts were the same as those in grower-buyer contracts. The potatoes had to be 85 percent, or more, U.S. No. 1, size A. Five handlers received $3.25 and two handlers received $3.20 per hundredweight for contract potatoes. Contracts were signed before the crop was planted and no changes were made after they were signed.

Each handler said all growers for whom he sold potatoes were offered subcontracts. Volume to be contracted was usually on the basis of the number of bags the grower wanted to supply. In some cases, time of delivery was mutually agreed upon at the time the contract was signed. In other cases, time of delivery was at the discretion of the handler.

Handlers gave about the same advantages of marketing potatoes under contract as growers did. Two said that with a contract, buyers would purchase more potatoes than called for in the contract; three said it ensured a market for part of the crop; one said it lightened the load on f.o.b. sales, and one said that contract sales helped move the crop.

In listing disadvantages of contracting, four handlers said the contract price tended to set a maximum market price; two said you lose money when the market price increases; and one said you were in bad shape in case of a disaster.

Subcontracting by handlers reduces buyers' contracting costs. The handler, rather than the buyer, deals with the individual grower.

In summary, selling potatoes under contract is a widely accepted practice in the Hastings area. Credit agencies encourage the practice because it gives them some security for their loans. Individual growers and handlers often contract from year to year even though they are not completely satisfied with the contract provisions. A contract does assure them a market for their potatoes. To be judged satisfactory, the contract should be one that works to the mutual advantage of all parties concerned.

SALES

The growing importance of the processing market has resulted in substantial changes in the distribution of the area's crop. This section of the report discusses some of the more important changes that will serve as background information for the final section, "Improving Market Organization and Practices."

TYPES OF HANDLERS

One hundred fifty-seven growers—85 percent of all growers—patronized only one type of handler (table 16). Cooperatives sold potatoes for most of the growers. Twenty-two growers sold their own potatoes. An additional 22 sold a part of the crop without an intermediary agent.

The importance of various types of handlers varied by farm size. Over 60 percent of the small farmers patronized cooperatives exclusively. No small farm operator sold all of his own crop.

Medium-size farmers most frequently used "other" agents. Fourteen percent acted as their own agent in selling the entire crop and 11 percent sold a part of their own potatoes.

Nearly one-third of all large growers acted as their own sales agent in selling the entire crop. An additional 24 percent sold a part of their own potatoes.

Since the total number of growers in the Hastings area decreased between the 1957/58 and 1967/68 seasons, the number of growers patronizing specific types of handlers also decreased. However, there was little relative change in the proportion of sales represented by each type of handler. In 1957/58, 84 percent of all growers used one type of handler exclusively. Ten percent sold all their own potatoes and an additional 8 percent sold a part of their crop. In 1967/68, 22 of the 185 growers—12 percent—sold their own potatoes and an additional 12 percent sold a part of their potatoes.

In 1957/58, 36 percent of the growers sold through cooperatives exclusively and 38 percent sold through "other" agents. In 1967/68, the percentages were 37 and 36, respectively.

From 1957/58 to 1967/68, the number of small farms decreased from 180 to 75, the number of medium-size farms increased from 61 to 73, and the number of large farms increased from 25 to 37. Even though the relative number of growers patronizing each type of handler

Table 16.—Types of handlers patronized by potato growers, by size of farm, Hastings area of Florida, 1967/68[1]

Type of handler	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
All sales made by:					
Grower-handler	0	10	12	22	14
Cooperative	47	20	2	69	44
Other[2]	19	35	12	66	42
Total	66	65	26	157	100
All sales made by combination of:					
Grower-handler and cooperative	0	5	2	7	25
Grower-handler and other	0	3	7	10	36
Grower-handler, cooperative, and other	5	0	0	5	18
Cooperative and other	4	0	2	6	21
Total	9	8	11	28	100
Grand total	75	73	37	185	100

[1]Computed from app. table 11.
[2]Includes corporations, brokers, and private individuals.

remained about the same, the market structure was modified to the extent that each handler dealt with fewer but larger growers.

VOLUME OF SALES

An estimated 32 percent of the total volume of potatoes sold were sold by grower-handlers, 24 percent by cooperatives, and 45 percent by "other" agents (table 17).

Sales to various type handlers differed greatly by farm size group. Less than 1 percent of the total sales of small farms was by grower-handlers, compared with 51 percent for the large-size group. Cooperatives handled more than three-fourths of the sales of small farms but were relatively unimportant in handling the crop of large farmers. Twenty-two percent of the total sales of small farms were handled by "other" agents, compared with 50 percent for medium-size farms, and 48 percent for large farms.

The relative importance of various types of handlers showed some change between 1957/58 and 1967/68. The largest change was for cooperatives and the smallest

Table 17.—Distribution of potato sales, by size of farm and type of handler, Hastings area of Florida, 1967/68[1]

Size of farm	Type of handler			All handlers
	Grower	Cooperative	Other[2]	
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*
Small	864	485,804	133,427	620,095
Medium	292,935	523,741	804,873	1,621,549
Large	1,086,413	32,428	1,023,515	2,142,356
Total	1,380,212	1,041,973	1,961,815	4,384,000
	Percent	*Percent*	*Percent*	*Percent*
Small	([3])	78	22	100
Medium	18	32	50	100
Large	51	1	48	100
Total or average	32	24	45	100

[1]Computed from app. table 12.
[2]Includes corporations, brokers, and private individuals.
[3]Less than 0.5 percent.

was for grower-handlers. Cooperatives handled 33 percent of the total volume in 1957/58 but only 24 percent in 1967/68. For the two periods, percentages of total sales by "other" agents were 38 and 45, and by grower-handlers, 29 and 32, respectively.

Sales by Type of Buyer

Buyers were classified into six types: retailer, wholesaler, local buying broker, processor, processor-supplier, and other (table 18).

Retailers are engaged directly in selling potatoes to consumers in fresh form. Wholesalers purchase potatoes for resale to other than the ultimate consumer. Local buying brokers are buyers located in the area who purchase potatoes for resale. Processors and processor-suppliers purchase potatoes for further processing before selling them to retailers, wholesalers, or consumers. A processor purchases potatoes for his own company, whereas a processor-supplier sells his potatoes to a processor for processing. "Other" includes those buyers who could not be classified under the foregoing types.

In 1967/68, processors were the most important outlet for grower-handlers, accounting for 53 percent of their total sales. Grower-handlers sold a greater proportion of their crop directly to processors than did cooperative or "other" handlers.

Cooperatives sold the greatest proportion of their volume to processor-suppliers. "Other" handlers emphasized sales to processors and processor-suppliers.

The increasing importance of processing between 1957/58 and 1967/68 was reflected in a marked shift in the proportion of sales going to various type buyers (table 19). In 1957/58, retailers accounted for 17 percent of sales but only 2 percent in 1967/68. Sales to wholesalers were 22 and 15 percent for the two periods, respectively. Sales to processors accounted for 38 percent of sales in 1957/58 and 37 percent in 1967/68. In the later period, however, sales to processor-suppliers accounted for 40 percent of total sales.

Data in table 19 show that grower-handlers are relying more heavily on the processed market as an outlet for their potatoes than are either cooperatives or other agents. Of the three types of handlers, cooperatives are depending least on the processed market. Cooperatives are selling more to processor-suppliers, and grower-handlers are selling more of their potatoes directly to processors. "Other" agents are dividing their sales about equally among processors and processor-suppliers.

Sales by Type of Market

Potatoes may be purchased for consumption either in fresh form or in processed form such as chips, flakes, or frozen products. Potato growers thus commonly think of two outlets—the fresh market and the processed market.

For all handlers, 23 percent of 1967/68's total sales were to the fresh market and 77 percent to the processed market (table 20). The distribution for all handlers in 1957/58 was 38 percent to the fresh market and 62 percent to the processed market. The percentage distribution to the processed market by type of handler in 1957/58 was 69 for grower-handlers, 53 for cooperatives, and 65 for other agents. In 1967/68, the percentages were 86, 65, and 75, respectively.

Table 18.—Potato sales, by type of handler and buyer, Hastings area of Florida, 1967/68

Type of buyer	Type of handler: Grower	Type of handler: Cooperative[1]	Type of handler: Other[2]	All handlers	
	Cwt.	Cwt.	Cwt.	Cwt.	Percent
Retailer	0	61,112	16,142	77,254	2
Wholesaler	195,639	137,941	125,408	458,988	15
Local buying broker	0	65,485	49,495	114,980	4
Processor	732,150	84,862	306,700	1,123,712	37
Processor-supplier	452,423	478,573	307,590	1,238,586	40
Other	0	44,834	11,165	55,999	2
Total	1,380,212	872,807	816,500	3,069,519	100

[1]Based on sales taken from cooperative records for 1968.

[2]Based on sales taken from records of other agents included in seller sample. Includes sales of corporations, brokers, and private individuals.

The shift toward a greater use of Hastings area potatoes for processing has definite implications for members of the potato industry. More emphasis is being placed on factors affecting the chipping quality of the potatoes and less on appearance and external qualities. The "chipper pack" has nearly replaced the Federal grade standards for potatoes. Growers are dealing more and more with processors and processor-suppliers which has resulted in an increased use of contracts. Less effort is made to obtain fresh market sales.

GRADE AND SIZE DISTRIBUTION

Hastings area potatoes are classified by packers as U.S. No. 1, size A and size B; Percentage U.S. No. 1, size A; Utilities; and Creamers.

Requirements for U.S. No. 1, size A and B, are those specified in U.S. Grade Standards for Potatoes. The Percentage U.S. No. 1, size A is commonly known as a "chipper pack" in the Hastings area. It contains potatoes which do not meet the requirements for U.S. No. 1 grade. The proportion of the crop meeting U.S. No. 1 grade requirement varies among handlers.

The Utility grade is unclassified under U.S. Grade Standards for Potatoes. The range in Utility quality among packers appears to be rather wide. The Creamer grade classification is also unclassified under U.S. Grade Standards for Potatoes. Creamers are exceptionally small potatoes. They are generally canned whole or are used in certain prepared foods such as stews and soup.

Data in this section include only sales of the seven handlers since grade and size classifications were not obtained for grower sales. U.S. No. 1, size A and

Table 19.—Percentage distribution of potato sales, by type of buyer, Hastings area of Florida, 1957/58 and 1967/68

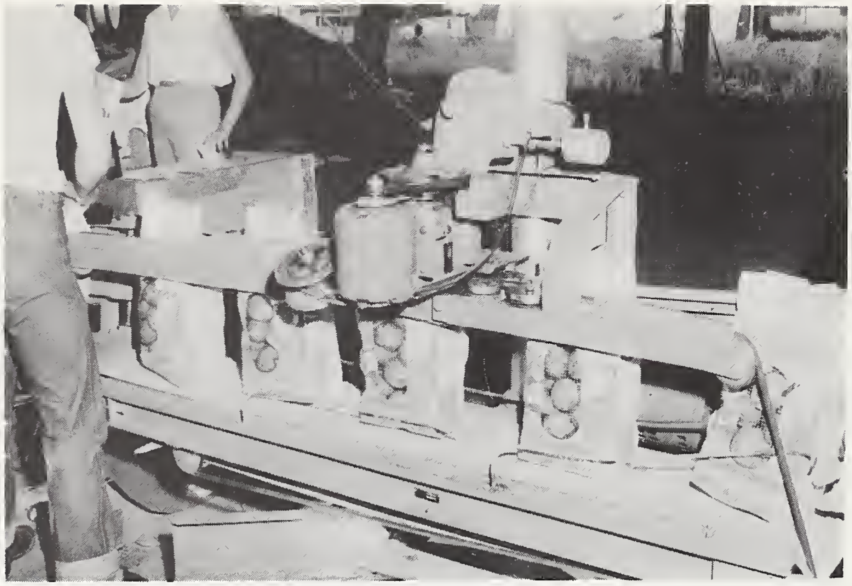
Type of buyer	Type of handler						All handlers	
	Grower		Cooperative		Other[1]			
	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Retailer	11	0	8	7	19	2	17	2
Wholesaler	19	14	23	16	22	15	22	15
Local buying broker	0	0	0	7	0	6	0	4
Processor	55	53	34	10	26	38	38	37
Processor-supplier	0	33	0	55	0	38	0	40
Other	9	0	35	5	33	1	21	2
Total	[2]94	100	100	100	100	100	[3]98	100

[1] Includes corporations, brokers, and private individuals.
[2] 6 percent sold to truckers.
[3] 2 percent sold to truckers.

Table 20.—Estimated total potato sales, by type of handler and market, Hastings area of Florida, 1967/68

Type of market	Type of handler			All handlers
	Grower	Cooperative	Other[1]	
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*
Fresh	195,639	309,372	202,210	707,221
Processed	1,184,573	563,435	614,290	2,362,298
Total	1,380,212	872,807	816,500	3,069,519
	Pct.	*Pct.*	*Pct.*	*Pct.*
Fresh	14	35	25	23
Processed	86	65	75	77
Total	100	100	100	100

[1] Includes corporations, brokers, and private individuals.



Closing 10-pound bags with automatic equipment

Percentage U.S. No. 1, size A were grouped together since many of the sales invoices did not distinguish between the two grades. These are designated as size A in the following discussion.

Sales by Type of Buyer

Size A potatoes comprised 93 percent of all sales (table 21). The largest proportion of size A potatoes was purchased by processor-suppliers. The largest proportion of the size B and Utility potatoes was handled by wholesalers. Creamers were largely purchased by "other" buyers.

The shift toward processing over the past decade resulted in a substantial reduction in the proportion of size A potatoes shipped to retailers, wholesalers, and local buying brokers (table 22). Retailers became more important buyers of size B potatoes, and wholesalers' purchases of Utilities increased from 31 to 66 percent.

Sales by Type of Market

In 1967/68, 27 percent of the size A potatoes were sold for consumption in fresh form and 73 percent for processing purposes (table 23). Slightly over one-half the size B potatoes and 89 percent of the Utility grade went to the fresh market. For all grades, 29 percent were sold to the fresh and 71 percent to the processed market.

In 1957/58, one-half of all size A, 46 percent of all size B, and 22 percent of all Utility grade went to the fresh market. All creamers were processed. In total, 46 percent of the crop was sold for fresh consumption and 54 percent for processing purposes.

Table 21.—Volume of potato sales, by grade or size of potato and by type of buyer, six handlers, Hastings area of Florida, 1967/68[1]

Type of buyer	Grade or size: Size A	Size B	Utility	Creamer	All grades and sizes
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Retailer	67,090	10,134	0	30	77,254
Wholesaler	231,135	23,676	8,538	0	263,349
Local buying broker	101,230	9,367	2,840	1,543	114,980
Processor	374,285	12,565	0	4,712	391,562
Processor-supplier	759,780	17,303	1,525	7,555	786,163
Other	39,555	6,320	70	10,054	55,999
Total	1,573,075	79,365	12,973	23,894	1,689,307

[1] Type of buyer not specified by 1 handler.

Table 22.—Percentage distribution of potato sales volume, by grade or size of potato and by type of buyer, Hastings area of Florida, 1957/58 and 1967/68

Type of buyer	Grade or size								All grades and sizes	
	Size A		Size B		Utility		Creamer			
	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68
	Percent		*Percent*		*Percent*		*Percent*		*Percent*	
Retailer	21	4	9	13	8	0	0	([1])	18	5
Wholesaler . . .	25	15	34	30	31	66	9	0	25	15
Local buying broker	21	6	19	11	33	22	10	6	22	7
Processor	28	24	36	16	27	0	81	20	30	23
Processor-supplier	0	48	0	22	0	12	0	32	0	47
Other	5	3	2	8	1	[1]	0	42	5	3
Total	100	100	100	100	100	100	100	100	100	100

[1]Less than 0.5 percent.

Table 23.—Percentage distribution of potato sales, by grade or size of potato and by type of market, Hastings area of Florida, 1957/58 and 1967/68

Type of market	Grade or size								All grades and sizes	
	Size A		Size B		Utility		Creamer			
	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68	1957/58	1967/68
	Percent		*Percent*		*Percent*		*Percent*		*Percent*	
Fresh	50	27	46	56	22	89	0	42	46	29
Processed	50	73	54	44	78	11	100	58	54	71
Total	100	100	100	100	100	100	100	100	100	100

COOPERATIVE MARKETING

Two marketing cooperatives operate in the Hastings area. The older is the Hastings Potato Growers Association and the other is Florida Planters, Inc. In addition to selling potatoes, both sell cabbage and handle farm supplies.

Twenty-eight percent of all potato growers in the Hastings area were members of these two associations in 1968. In both associations, membership was about equally divided between the small- and medium-size farm groups. Only 10 percent of the members were large farmers.

When asked what were the major advantages of belonging to a marketing cooperative, 43 percent of the members said it helped in selling the crop, 24 percent said it helped in obtaining financing, and 22 percent said you could get supplies cheaper (table 24).

When asked what suggestions they had for improving the operation of the association, 73 percent had no suggestions.

Growers were asked if membership in the association should be increased, remain about the same, or decreased. Thirty-four grower-members—65 percent—replied that the number of members should be increased and 35 percent said membership should remain about the same (table 25). Nearly two-thirds of the members believed that increasing membership would result in a stronger sales outlet and improved market control.

Members seemed to be satisfied with the operations of the two associations: the majority failed to give any suggestions for improving the operation of their associations and thought the memberships should be increased. If growers had been dissatisfied, more would have had

Table 24.—Opinions of Members of Hastings Potato Growers Association and Florida Planters, Inc., by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm: Small	Size of farm: Medium	Size of farm: Large	All farms	
	Number	*Number*	*Number*	*Number*	*Percent*
What do you believe are the major advantages of being a member?					
Help in selling crop	16	16	0	32	43
Help in financing crop	8	8	2	18	24
Get supplies cheaper	4	12	0	16	22
Other	2	2	4	8	11
Total[1]	30	38	6	74	100
What suggestion do you have for improving the operation of the association?					
Better supervision of packinghouses	2	0	0	2	4
More annual membership meetings	2	0	0	2	4
Treat small growers fairly in time of reduced harvest	2	0	0	2	4
Leave operation up to board of directors	0	4	0	4	7
Better cooperation from all members	0	2	0	2	4
Have better salesmen	0	0	2	2	4
None given	19	16	3	38	73
Total	25	22	5	52	100

[1]Some growers gave more than 1 response.

Table 25.—Growers' opinions on change in cooperative membership, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm: Small	Size of farm: Medium	Size of farm: Large	All farms	
	Number	*Number*	*Number*	*Number*	*Percent*
In your opinion, should the association membership be increased, remain the same, or decreased?					
Increased	16	14	4	34	65
Remain the same	10	6	2	18	35
Decreased	0	0	0	0	0
Total	26	20	6	52	100
Reasons for increased membership:					
Have a stronger sales outlet and better market control	10	8	4	22	65
Make financing easier	2	2	0	4	12
None given	4	4	0	8	23
Total	16	14	4	34	100
Reasons for membership remaining the same:					
Have enough members for present sales and packing facilities	8	4	2	14	78
Growers cannot meet financial requirements	0	2	0	2	11
Do not need more volume to sell during April, May, and June	2	0	0	2	11
Total	10	6	2	18	100

Potatoes placed in temporary bins at packing house.

suggestions for improving their association. Also, they would not have wanted to see other growers become members.

The associations have a difficult job from the standpoint of sales. They have to move the crop over about a 6- to 8-week period, with the bulk of the sales within a 2-week period. At the peak period, the organizations may have more potatoes than can be sold at a satisfactory price, which may have a depressing effect on the market. The managers of the associations need to work out with their growers plans for coordinating harvesting practices with marketing requirements at times of peak sales.

NORTH FLORIDA GROWERS EXCHANGE

One factor said to be contributing to unstable marketing conditions in the Hastings area is the large number of handlers. One approach to the problem of undesirable handler competition is an areawide cooperative, the North Florida Growers Exchange, of which a majority of area growers and grower-handlers are members. The association contracts with one or more handlers to sell all members' potatoes.

The exchange was set up and began operating in the Hastings area during the 1967/68 season. In that season, it charged a membership fee based on a sliding scale of $10 for 50 acres or less, $25 for 51-100 acres, and $50 for more than 100 acres. Members also paid an assessment of 1 cent per 100-pound bag of potatoes sold. All membership fees were refunded at the end of the season.

In the 1968/69 season, the exchange operated only on the assessment of 1 cent per 100-pound bag of potatoes sold.

The exchange had one fieldman in 1967/68. His duties were to collect information on acreage of potatoes being grown in the Hastings area and competing areas. During the marketing season, he kept a record of volume of potatoes harvested and volume to be harvested. He supplied this information, along with information on conditions in competing areas, to a marketing committee that had responsibility for establishing the price to be asked for potatoes each day. Anyone could find out the asking price by dialing the exchange answering service.

Through its contracts with handlers, the exchange acts as a coordinator of sales rather than actually handling the physical product. The grower or handler prepares the potatoes for sale. Handlers designated as selling agents for the exchange sell at the price established by the marketing committee. Handlers may sell to any customer regardless of whether the potatoes be for the fresh or process market. Potatoes being grown on contract by exchange members go to the contractor at the contract price.

MEMBERSHIP AND REASONS FOR JOINING

Eighty-seven percent of all Hastings area potato growers were members of the exchange during the 1967/68 season (table 26). They gave a variety of rea-

Table 26.—Membership of North Florida Growers Exchange and members' reasons for joining, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Member of North Florida Growers Exchange:					
Yes	75	58	28	161	87
No	0	15	9	24	13
Total	75	73	37	185	100
Reasons for joining:					
Thought exchange would help stabilize marketing conditions	38	50	25	113	70
Thought exchange would help area	0	5	2	7	5
Thought it would help if everybody could get together	9	0	1	10	6
Other	28	3	0	31	19
Total	75	58	28	161	100

sons for joining. The majority—70 percent—thought the exchange would help stabilize the market price.

OPINIONS OF MEMBERS

Members were asked about the exchange's objectives, the effect of the exchange on the Hastings potato industry, how the operations of the exchange could be improved, and whether they planned to renew their membership.

Objectives of the Exchange

The majority of exchange members—72 percent—said the exchange's objectives were to stabilize the price of potatoes on a given day and provide growers with more information about the market (table 27).

Effect on Hastings Potato Industry

Eighty-six percent of the members said the exchange had a favorable effect on the Hastings potato industry during the 1967/68 season. They believed that during the early part of the season price stayed up longer than it would have without the exchange. Practically all members agreed that the exchange was not effective during the later part of the season because too many potatoes not under the control of the exchange were put on the market for the exchange to be effective.

Improving Operations

When asked what suggestions they had for improving the operations of the exchange, 45 percent of the members said to get more growers and more acreage in the exchange and 20 percent had no suggestions.

Renewing Membership

Of the 161 growers who were members of the exchange in 1967/68, 75 percent said they planned to renew their membership for the 1968/69 season. One-fifth said they did not plan to renew their membership and five percent said they would not grow potatoes.

OPINIONS OF NONMEMBERS

Of the 24 growers who were not members of the exchange, 38 percent said they were discouraged from joining by the buyers who handled their potatoes. An additional 21 percent believed that the exchange lacked proper leadership and had an unworkable program.

Forty-five percent believed that the exchange had a favorable effect on the Hastings potato industry.

Only two nonmembers said they would join the exchange in the 1968/69 season. The members who said they would not join gave about the same reasons for not joining as they gave for not joining in 1967/68.

Table 27.–Members' opinions as to objectives of North Florida Growers Exchange, by size of farm, Hastings area of Florida, 1967/68

Question and Response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
What do you consider to be the main objective of the exchange?					
To stabilize daily prices and provide growers more information about the market	52	45	19	116	72
To sell potato crop in a more orderly manner	5	3	4	12	8
To get a better price for potatoes	5	5	1	11	7
To keep buyer from beating price of potatoes down	9	0	0	9	5
Other	4	5	4	13	8
Total	75	58	28	161	100

OPINIONS OF HANDLERS

Each of the seven handlers was a selling agent of the North Florida Growers Exchange. The agents' reasons for working with the exchange varied. One said in the hope of stabilizing the f.o.b. price; one said to try to get price stabilization for potatocs and keep members more informed about prices; one said to try to get cooperation of growers to get a better price; one said he worked with the exchange because many of his growers were members of the exchange; one said to try to get more money for the potatoes by getting a firm price on a given day; one said the exchange supplied valuable price information to sellers; and one said to see if organization by growers would help to establish a stable market price.

Most of these agents agreed that the objective of the exchange was to establish a stable f.o.b. price on a given day. They thought this was accomplished by developing improved working relationships among sellers and by getting more accurate information about the market. Sellers thought these factors would enable them to get a higher price for their growers.

All handlers agreed that the exchange had a favorable effect on the market situation. The market price held up longer than it would have otherwise. They also agreed that the exchange was more effective during the early part of the season than during the later part.

OPINIONS AND ATTITUDES OF GROWERS AND SHIPPERS RELATIVE TO MARKET ORGANIZATION AND PRACTICES

Opinions and attitudes of individual participants in an industry influence its direction and the extent of change within the industry. Information on opinions and attitudes is needed to properly ascertain the basis of current conditions and to evaluate future alternative courses of action. The need for such information becomes more acute when group action is considered as one technique for helping solve industry problems.

PROBLEMS CONFRONTING THE HASTINGS POTATO INDUSTRY

To learn what growers considered to be problems confronting the Hastings potato industry, they were asked: (a) What is the most critical problem facing the potato industry in the Hastings area, (b) what is the second most critical problem; and (3) what other problems do you consider important?

In response to the first question, slightly over one-fifth of the growers said price was two low in relation to the cost of growing potatoes (table 28). One-fifth replied that there were too many potatoes grown. Another problem mentioned frequently was marketing.

There was less agreement on the second most critical problem than on the most critical. Unavailability of dependable labor was mentioned most frequently. Too many potatoes and farmers' unwillingness to work together were next in importance. Too many handlers and prices too low in relation to cost of growing were other problems listed.

The seven handlers each mentioned a separate problem confronting the Hastings potato industry. These were: a lack of demand for table stock potatoes; too many potatoes grown; marketing, or trying to get what the potatoes were worth; too many salesmen, particularly grower salesmen; quality of potatoes produced, or too much catering to chip companies that do not demand a high grade; labor; and too many acres planted.

Five handlers listed a second problem. These were: need a wider area of distribution; sprout inhibitors on stored potatoes create more competition for new potatoes; labor; not enough coordination in selling; and competition in the market.

In the 1957/58 study, when Hastings growers were also questioned about problems confronting the potato industry, 40 percent replied that the most critical one was too many potatoes. Other problems, listed in order of importance, were too many handlers, poor-quality potatoes, lack of competiton in buying, and price too low. There was less agreement on the second most critical problem, but the four most frequently mentioned were: too many handlers, poor-quality potatoes, poor market organization, and too many potatoes.

Overproduction and too many handlers were problems listed frequently in both studies. Price was listed more often as a problem in 1967/68 than in 1957/58. Over the 10-year period, the price of contract potatoes advanced only about 25 cents per hundredweight. The cost of growing potatoes advanced more than price and growers are feeling a real cost-price squeeze.

Table 28.—Problems facing the Hastings potato industry as seen by growers, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
What is the most critical problem facing the potato industry in the Hastings area?					
Price too low in relation to cost of growing	14	23	3	40	21
Too many potatoes	10	10	16	36	20
Marketing	14	10	9	33	18
Contract price tends to set maximum market price	5	8	0	13	7
Growers not able to work together	9	0	4	13	7
Too many handlers	0	10	0	10	5
Other	14	12	5	31	17
None given	9	0	0	9	5
Total	75	73	37	185	100
What is the second most critical problem?					
Labor too hard to get—not dependable	9	6	17	32	26
Too many potatoes	9	6	0	15	12
Farmers will not work together	5	7	0	12	10
Too many handlers	0	6	6	12	10
Price too low in relation to cost of growing	2	6	0	8	7
Other	9	11	22	42	35
Total	34	42	45	121	100

NUMBER OF HANDLERS

Growers were asked their opinions regarding fewer handlers in the Hastings area. Their replies are summarized in table 29. Fifty-seven percent thought fewer handlers would be desirable and 23 percent, highly desirable. When asked why they replied as they did, 50 percent of those replying highly desirable and 51 percent of those responding desirable said a large number of sellers leads to price cutting.

Growers' opinions suggest that a large number of handlers create excessive competition in sales. Some handlers cut prices to get a share of the market. It would be easier for a smaller number of handlers to maintain a firm market price.

Six handlers said it would be desirable to have fewer sellers and one said it would be neither desirable nor undesirable. Handlers shared growers' views that fewer sellers would give handlers more control over the market. This was indicated by such answers as control of sales would be in fewer hands and could coordinate sales easier, fewer salesmen would give better control over the market, and fewer sellers can work together and work for a more uniform price. Handlers also believed a large number of salesmen was conducive to price cutting as they competed for a share of the market.

Growers in 1957/58 also believed it desirable to have fewer handlers in the Hastings area. When asked if a smaller number would be highly desirable, desirable, or not desirable, 63 percent replied highly desirable, 23 percent desirable, and 4 percent not desirable. Ten percent had no opinion. The practice of price cutting by handlers was believed to be largely responsible for market price declines. Some operators of small farms thought the increase in number of handlers had resulted in some flooding of the market and consequent drops in price.

QUANTITY OF POTATOES GOING TO FRESH MARKET

Some local leaders believe the Hastings potato industry should attempt to recapture some fresh market sales. In

Table 29.—Growers' opinions regarding fewer handlers, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm: Small	Medium	Large	All farms	
	Number	*Number*	*Number*	*Number*	*Percent*
In your opinion, fewer sellers in the Hastings area would be:					
Highly desirable	20	18	4	42	23
Desirable	42	43	21	106	57
Neither desirable nor undesirable	0	8	10	18	10
Undesirable	5	0	0	5	3
Highly undesirable	0	2	0	2	1
Don't know	8	2	2	12	6
Total	75	73	37	185	100
Reason for highly desirable:					
Large number of sellers cut price to get a share of the market	11	10	0	21	50
Could control market better	9	6	4	19	45
Too many people are interested in only what they can get out of potatoes	0	2	0	2	5
Total	20	18	4	42	100
Reason for desirable:					
Large number of sellers cut price to get a share of the market	14	30	10	54	51
Hard to get a large number of sellers to agree on a stable price	5	10	7	22	21
Other	23	3	4	30	28
Total	42	43	21	106	100

addition, they believe both fresh and processed markets should be tapped more effectively to move the volume of potatoes now being produced.

When growers were questioned about the quantity of potatoes going to the fresh market relative to the processed market, 78 percent said fresh market sales should be increased, 4 percent said they should be greatly increased, 15 percent neither increased nor decreased, and 3 percent replied "don't know" (table 30).

When asked what they thought should be done to increase fresh market sales, 29 percent said "dig a more mature potato," 24 percent said "grow a variety more suitable for the fresh market," and 19 percent said "pack a better quality pack."

When asked how many potatoes they would be willing to pack for the fresh market in 1968/69 under price-cost relationships that existed in 1967/68, growers' answers varied from none to 75 percent or more of the crop.

Table 30.—Growers' opinions regarding proportion of the potato crop going to the fresh market, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Do you think the proportion of the Hastings area crop going to the fresh market should be:					
Greatly increased	0	5	3	8	4
Increased	65	55	25	145	78
Neither increased nor decreased	5	13	9	27	15
Decreased	0	0	0	0	0
Greatly decreased	0	0	0	0	0
Don't know	5	0	0	5	3
Total	75	73	37	185	100
What do you think should be done to increase fresh market sales relative to sales for processing?					
Dig a more mature potato	17	34	19	70	29
Grow a variety more suitable for fresh market	11	36	11	58	24
Have a better quality pack	6	28	11	45	19
Put up consumer packs	8	3	3	14	6
More advertising and promotion	3	5	3	11	5
Have a better grade of potatoes	8	0	0	8	3
Raise quality of potatoes grown	0	3	6	9	4
Don't know	0	0	6	6	2
Other	9	3	8	20	8
Total[1]	62	112	67	241	100
How many potatoes would you be willing to pack for fresh market in 1968/69 under price-cost relationship that existed last season?					
None	14	10	9	33	22
Less than 15 percent	0	3	0	3	2
15–29 percent	18	15	2	35	23
30–44 percent	5	3	2	10	6
45–59 percent	5	15	9	29	19
60–74 percent	5	0	0	5	3
75 percent or more	9	10	5	24	16
Will not grow potatoes	5	2	1	8	5
Not ascertained	4	2	0	6	4
Total[2]	65	60	28	153	100

[1]Some growers gave more than 1 response.
[2]Includes only those farms reporting greatly increased and increased.

Of the seven handlers, one said the proportion of potatoes going to the fresh market should be "greatly increased" and six said "increased." Steps listed by handlers that should be taken to increase fresh market sales were about the same as those listed by growers. Most frequently mentioned were pack in consumer-size containers, put up a better quality pack, and get a variety more suited for the fresh market. Other suggestions were harvest a more mature potato, advertise, and push fresh market sales.

When handlers were asked what proportion of their sales they would be willing to pack for the fresh market, one said 25 percent; two said 30 percent; two, 40 percent; and two, 50 percent.

Although the proportion of sales going to the processed market in 1957/58 was less than in 1967/68, growers' opinions relative to increasing fresh market sales were about the same as in 1967/68. When growers were questioned in 1958 regarding the quantity of potatoes going to the fresh market relative to the processed market, 65 percent said the quantity should be increased, 14 percent said it should remain about the same, 8 percent said it should be decreased, and 13 percent had not come to a decision on the question.

Growers who thought the proportion of the crop going to the fresh market should increase or remain about the same were asked what action they believed was necessary to expand fresh market sales relative to sales for processing. Answers given in 1967/68 were different from those given in 1957/58. The most frequent suggestions were for quality improvement (36 percent) and advertising (28 percent). Nine percent thought a better sales organization and 6 percent, a greater output of potatoes in consumer packages would increase sales to the fresh market. Sixteen growers did not know of any action that might increase fresh market sales.

VOLUME AND GRADE REGULATIONS

When growers were asked their opinions about the volume of potatoes grown in the Hastings area in 1967/68 compared with production in a typical season, nearly one-half said potato production should be decreased, and 31 percent said it should be greatly decreased (table 31). These growers believed that acreage should be cut to bring supply in line with demand and that the market was oversupplied.

Four handlers said the volume of potatoes grown in the Hastings area should be decreased, two said greatly decreased, and one said neither decreased or increased. Those who said decreased or greatly decreased thought this was necessary to bring supplies in line with demand.

Table 31.—Growers' opinions on the volume of potatoes grown, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
Compared with a typical season, do you think the volume of potatoes grown in the Hastings area should be:					
Greatly increased	0	0	0	0	0
Increased	0	0	0	0	0
Neither increased nor decreased	19	10	7	36	19
Decreased	28	48	14	90	49
Greatly decreased	28	13	16	57	31
Don't know	0	2	0	2	1
Total	75	73	37	185	100
Reasons for decreased or greatly decreased:					
Should cut acreage to bring supply in line with demand	14	38	11	63	43
Market oversupplied	33	5	16	54	37
Should cut acreage to reduce supply	0	13	0	13	9
Other	9	5	3	17	11
Total	56	61	30	147	100

Table 32.—Growers' opinions regarding a program to influence volume of potatoes grown, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
What would you think of a program designed to influence the volume of potatoes grown in the Hastings area?					
Undesirable	33	33	21	87	47
Desirable	14	25	14	53	29
All right if compulsory	9	3	0	12	6
Depends on how program was set up	5	0	2	7	4
Probably would help	0	5	0	5	3
Other	14	7	0	21	11
Total	75	73	37	185	100
If such a program was undertaken, would you be willing to cooperate?					
Yes	33	43	18	94	51
No	33	30	19	82	44
Don't know	5	0	0	5	3
Would if farming	4	0	0	4	2
Total	75	73	37	185	100

Growers in 1957/58 also believed that the volume of potatoes grown should be decreased. Eighty-one percent said production should be decreased. The remainder had not formed an opinion or thought production should remain at the current level.

Growers were asked, "What would you think of a program designed to influence the volume of potatoes grown in the Hastings area?" Forty-seven percent said they would not want a Government control program and 29 percent responded that a Government control program would be desirable (table 32). Fifty-one percent said they would cooperate if such a program were undertaken and 44 percent said they would not.

Growers were asked, "What would you think of a regulation to control grade of potatoes sold?" Thirty-seven percent favored such a regulation but 21 percent did not (table 33).

Table 33.—Growers' opinions regarding a regulation to control grade of potatoes sold, by size of farm, Hastings area of Florida, 1967/68

Question and response	Size of farm			All farms	
	Small	Medium	Large		
	Number	*Number*	*Number*	*Number*	*Percent*
What would you think of a regulation to control grade of potatoes sold from Hastings area?					
Favor a regulation	19	33	16	68	37
Would not favor a regulation	14	7	18	39	21
Regulation needed for the fresh market, not for the chip market	0	18	2	20	11
Present grade adequate, especially for the chip trade	9	5	1	15	8
Grade varies too much from year to year	9	0	0	9	5
Other	24	10	0	34	18
Total	75	73	37	185	100

Four of the seven handlers said it would be undesirable to have a regulation on grade. One handler said it would work a particular hardship on some growers in some years; one said it would be difficult to make grade in poor growing seasons; one said it would cost growers more money than it would make for them, and one said no regulation was needed to control grade. One seller said a regulation would be desirable because it would eliminate price confusion as to grade.

Growers were not asked in 1957/58 what they thought of a regulation to control the grade of potatoes sold. They were questioned on desirability of having some standard regulating the maturity of potatoes sold. Growers' opinions were about equally divided on whether there was a need to regulate maturity. Forty-six percent replied desirable, 49 percent replied undesirable, and 5 percent had no opinion.

The opinions and attitudes concerning market organization and practices indicate that members of the Hastings potato industry believe they have problems. However, growers and shippers have varying ideas as to the nature of the problems. In many cases, current problems are not new—they are similar or identical to problems that existed 10 years ago.

For growers, the most important problem is too many potatoes. They believe that production should be decreased to bring supply in line with demand. This is a problem that individual growers have very little control over unless other growers take similar action. To get similar action usually requires some type of Government control program. About half the growers said they would not favor such a program. On the other hand, about half said they would be willing to cooperate if such a program were undertaken.

One important change in potato sales in the Hastings area has been the increase in sales to the processed market relative to the fresh market. Most potatoes sold for processing move on a percentage grade which has lowered the quality of potatoes packed in the area. Potatoes for processing are also dug at a more immature stage than are potatoes for the fresh market. Growers believe that a more mature potato would have to be dug and a better quality potato packed if fresh sales were to be increased. However, less than 40 percent of the growers said they favored a regulation on grade. Growers believe that present grade standards are sufficient for processors; and since a majority of their potatoes moved to processors, they did not favor a regulation.

IMPROVING MARKET ORGANIZATION AND PRACTICES

As pointed out, the major problems facing the potato industry as seen by growers were: (a) too many potatoes, (b) price too low in relation to costs of production, and (c) marketing.

It will be difficult for growers to solve these problems through individual action because of the intense competition existing on the selling side of the market. An individual grower will not find it profitable to reduce output or hold low-quality potatoes off the market since his action alone will not alter prices: there is no assurance that other growers will reduce output.

To achieve orderly marketing will most likely require group action. Competition for the sales of a perishable product is intense, especially in a short marketing season. Some handlers are likely to cut prices more than the supply demand situation justifies in seasons of heavy supplies. To meet competition, other handlers may find it necessary to follow suit to move their potatoes. It appears that more concerted group action will be necessary to solve or mitigate the problems facing the industry since buyers of Hastings area potatoes are undoubtedly in a much stronger bargaining position than sellers are.

Various programs have been used by other agricultural producers to solve similar problems. Three of the most common approaches have been Federal marketing agreements and orders, central sales agencies, and grower bargaining associations.

This section appraises each approach in terms of (a) what might be accomplished, (b) requirements on the part of growers and sellers for successful operation, and (c) characteristics of the Hastings area that might affect success.

FEDERAL MARKET AGREEMENT AND ORDER PROGRAM

The Agricultural Marketing Act of 1937 gave the Secretary of Agriculture authority to enter into voluntary marketing agreements and issue marketing orders. Florida producers considered a marketing agreement and order in November 1959. The proposal covered white potatoes grown east and south of the Suwannee River. It was promoted largely by producers and handler representatives from the Hastings area.

Following a public hearing, a referendum was conducted among producers. The agreement failed to pass by a very small margin, so an order was not issued by the Secretary of Agriculture. Rejection by growers at that time does not necessarily mean a similar proposal should not be considered.

Possible Accomplishments

A marketing order allows regulation of marketing in a number of ways including regulation of quality, regulation of quantity, standardization of containers or packs, research and development projects, prevention of unfair trade practices, price posting, and issuance of market information. The following discussion deals with (a) quality regulation, (b) quantity regulation, (c) diversion of surpluses, and (d) pack regulations.

Quality regulation.—Quality regulation is frequently used to prevent inferior grades, sizes, and qualities from being shipped to market. Such regulation would be expected to improve buyer confidence in Florida potatoes. It is assumed that if low-quality potatoes were restricted from the market, consumers would buy a larger quantity of better grade potatoes at a given price or the same quantity at a higher price.

In actual practice, it may be difficult to remove low-quality potatoes from the market. Production of such potatoes may be concentrated in a particular area. A blanket restriction against shipment of low-quality potatoes may impose undue hardships on growers holding the majority of these potatoes. However, such cases are usually dealt with by suspension or exemptions that tend to minimize what might otherwise be fatal opposition to the order. Suspensions or exemptions, if used too often, defeat the purpose of regulating quality, and a large share of the low-quality potatoes may still find their way to market.

Provisions for quality regulations were included in the proposed agreement and order rejected by the Florida white potato growers in early 1960.

Quantity regulation.—A market order and agreement may be used to regulate the quantity of a product shipped to market during a specified period. The regulation usually involves allocating the total quantity to be marketed among all handlers. It may be useful in lengthening the marketing period to avoid gluts and resulting low prices for producers of nonperishable commodities.

Since potatoes in the Hastings area are highly perishable, however, quantity regulation might cause serious loss from spoilage. This might account for its absence in the proposed market agreement and order rejected by Florida producers.

Diversion of surpluses.—Marketing orders may provide for disposing of surpluses or diverting them to secondary market outlets. Each handler is required to participate on a percentage basis. This type of regulation was not a part of the proposed agreement and order for Florida potatoes.

Pack regulations.—Marketing orders may provide for fixing the size, capacity, weight, dimension, and pack of the container. They permit more standardization of the product reaching the market and thus bring about a greater degree of buyer confidence. Pack regulation, combined with compulsory inspection imposed by the marketing order, means that buyers can be relatively sure of the quantity, size, and weight of packages of potatoes they purchase.

Such a regulation should benefit handlers since it would remove some of the confusion arising from the wide variety of pack and sale of uninspected potatoes. Pack regulation was included in the proposed agreement and order for Florida white potatoes.

In addition to providing for direct types of regulation, Federal orders also permit commodity groups to establish research and development projects designed to assist, improve, or promote the market distribution and consumption of the product. Funds collected under such provisions may be used to cover expenses. In this way, funds for research on marketing problems might be obtained from industry participants. The proposed agreement and order covering Florida white potatoes included such a provision.

A Federal marketing agreement and order would most likely contribute to the Hastings area's marketing situation in an indirect way. It could result in sufficient funds and the type of planning and coordination necessary to develop more adequate market information. Quality and pack regulations should lead to a more standardized product attractively packed that, in turn, should increase buyer confidence in Hastings potatoes. This would be an advantage to both buyers and sellers and should lead to a substantial increase in sales to the fresh market.

Requirements for Successful Operation

For a marketing order to be issued, it is necessary that either two-thirds of the producers vote in favor of the proposed order or two-thirds of the total production of the commodity be accounted for by the people voting favorably.

Benefits from a proposed order would not be likely to accrue rapidly. Growers tend to view their problems from a short-term consideration. The major requirements for the successful operation of an order would be the willingness of growers and sellers to recognize and act in accordance with the long-run interest of the industry. There would be little hope of successful operation unless the longrun view were taken.

Buyers and sellers must realize that participation would involve surrendering a certain amount of freedom of operation. Some buyers and sellers would be forced to comply with regulations against their will and possibly to their individual disadvantage. Promoting the interest of the group does not imply that the interest of each individual would be served. Before a marketing order could operate successfully, a majority of producers and handlers would need to conclude that their interests could best be served through the medium of a marketing order. They would need to believe they could select administrative committee members and management capable of operating the order in an efficient and equitable manner.

Factors That Might Affect Success

Producers in the Hastings area are highly independent. This is especially true of large independent producers who do their own packing and selling. Hastings growers generally have been in potato production for a number of years. They have witnessed good and bad seasons, but over the years potato production has been profitable. They therefore tend to avoid any type of group action.

Historically, growers in the Hastings area have considered group action only after a series of low prices. When they considered the marketing order and agreement in 1959, it was following low price years in both 1958 and 1959.

In the 1967/68 season, over three-fourths of the potatoes produced in the Hastings area were sold for processing. Most of these potatoes moved as a Percentage U.S. No. 1, size A grade. As indicated earlier, less than 40 percent of the growers said they would favor a regulation on the grade of potatoes. Thus a majority of the growers are not likely to look with favor on a program requiring compulsory grading.

There are certain characteristics of the Hastings area that would make administration of a marketing agreement and order difficult. The area is small geographically, but production conditions normally vary over the area during a given season. Plantings in the Federal Point and Bunnell areas are earlier than in certain other parts of the area. Potatoes in these areas are normally the first harvested and reach the market when prices are usually relatively high. Quality of potatoes may also vary considerably between different sections in a given season.

The shortness of the marketing season would probably be a handicap in administering an order. Administration might not be flexible enough to be very effective during a short marketing season. It probably would take too long to get regulations changed. The need for a change might arise suddenly, yet it might require a week to complete the change and make it effective. However, in other orders in the State changes have often been made effective in 48 hours or less.

Determining the type and extent of regulation needed would pose a difficult problem for an administrative committee. The supply situation for new potatoes is affected by competing areas in which harvesting normally begins while the Hastings crop is moving to market. Overlapping marketing seasons and other factors could result in a rapidly changing and highly uncertain supply that would be difficult if not impossible to determine by an administrative committee.

AREAWIDE COOPERATIVE WITH ONE OR MORE CENTRAL SALES AGENCIES

As mentioned earlier, a frequent complaint concerning potato marketing in the Hastings area is that there are too many handlers. Many of the handlers are individual growers who usually have their own packinghouses, two are cooperatives, and others are private or corporate firms. Handlers strongly compete with each other in negotiating with buyers and often are thought to create a depressing effect on prices.

The North Florida Growers Exchange, discussed in an earlier section of this report, is one approach to the problem of handler competition. The concept of such an areawide association is a variation of the sales agency idea. The difference is one of operational organization. The individual grower contracts with the areawide cooperative to handle his potatoes. Instead of all sales being made by one central sales agency, the areawide cooperative contracts with one or more sales agents to sell the potatoes of its members.

Possible Accomplishments

Through an areawide cooperative, growers can carry out most of the actions permitted by a Federal marketing agreement and order program. The association can adopt regulations on quality shipped as well as pack specifications. Inspection can be imposed as a condition of sales. Funds can be collected for market research and development. Producers will reap whatever benefits there might be from participation in group action in the same manner as under a Federal marketing order. Certain other goals might be reached that are not possible under a Federal order.

The North Florida Growers Exchange has not adopted many of the above regulations as conditions of sales. However, its articles of incorporation and bylaws make it possible to accomplish most of the purposes and regulations that might be desired.

The exchange offers a way for the industry to attain more equitable bargaining power with large buyers. In recent years, buyers have become fewer, larger, and better organized. The competitive disadvantage of growers can largely be overcome through the use and support of a properly functioning areawide cooperative exchange.

An areawide association can be more flexible than individual handlers in meeting all demands of the market. Operations can be such that they will give buyers exactly what they want in terms of quality, container size, type of pack, and schedule of delivery.

Through an areawide cooperative, growers and handlers can adopt such advertising and promotional programs as they desire. With the approval of the membership, the association can deduct money for financing such activities. Although an advertising program has not been pushed by the North Florida Growers Exchange, such a program might be highly desirable if an effort is made to sell more potatoes for table stock.

If an areawide cooperative is successful in marketing potatoes, it might expand its operations to bargain for its members in contracting with contractors and with farm supply sources. The North Florida Growers Exchange is beginning to work for more uniform contract terms and prices.

Requirements for Successful Operation

If the North Florida Growers Exchange is going to effectively sell its members' potatoes through one or more sales agencies, a large proportion of the growers must belong to and support the organization. Sixty-nine percent of the growers in the Hastings area were members of the exchange in the 1967/68 marketing season and 62 percent in the 1968/69 season. Growers agree that the exchange operated with a fair degree of success each season. For a really successful operation, at least 85 percent of the area's production would need to be represented by the exchange. Unless growers are willing to assume the ultimate responsibility for the success or failure of the exchange and unless they participate to the fullest extent, the exchange can never reach its potential as a service agency. As in any type of effective group action, growers need to recognize the responsibility of the minority to consent to the will of the majority.

Factors That Might Affect Success

The exchange offers a means of reducing the number of handlers or getting the handlers to work together and thus promote a more stable market situation.

Many handlers in the Hastings area operate large farms and have their own packinghouses. They have been less inclined than other producers to participate in any type of group action. The possibility of large volume producers contracting with the exchange to handle their own sales should increase the possibility of obtaining their cooperation. However, such producers probably believe it would be to their advantage to continue selling their own potatoes. Because they have been selling their own potatoes for a number of years, they have developed good market contacts and outlets.

Some buyers in the Hastings area purchase their potatoes directly from growers. They believe they have been fair with the grower and have given him a good deal. Some buyers have encouraged growers not to join the exchange. This limits the amount of cooperation that can be obtained.

The exchange demonstrated its usefulness during the past two marketing seasons even though it had fewer members than desired. As growers gain more experience in working together and perceive the advantage of closer cooperation, more nonmember growers may become members of the exchange.

GROWER BARGAINING ASSOCIATION

Producers have exhibited considerable interest in grower bargaining associations in recent years. Such organizations represent farmers in negotiations with processors on prices, contract specifications, or other terms of sale. These cooperatives generally do not handle the physical processing and movement of a commodity.

Bargaining associations may serve as the selling agent for their members. In such cases, there is usually a three-way contract specifying the requirements on the part of the grower, the association, and the processor. Other bargaining associations who do not serve as selling agents limit their activities to negotiating with processors.

Possible Accomplishments

Over three-fourths of the Hastings potato crop goes to processors, primarily potato chip manufacturers. About 35 percent of the volume moving to processors was acquired on a contract basis in the 1967/68 season. Contract terms in 1968 were fairly uniform between growers and various contract agencies, but growers believed that the contract price was too low. Generally, growers who contracted had about 45 percent of their total output on contract. A bargaining association might be helpful in dealing with contractors.

If most growers in the area would support a bargaining association, several things might be accomplished. Through negotiating as a group, producers' bargaining power would be strengthened. As a result, growers might be able to move the same total volume to contractors at slightly higher prices than could be obtained under present conditions.

A direct increase in the price per unit of potatoes sold to contractors might be of less importance than some other influences that might be created through group bargaining. Through group action, growers might obtain adoption of more uniform contract terms. Negotiation on such items as grade and grading, time of harvest and delivery, and method of payment could be initiated. Growers could negotiate desired changes in the type of contract being used. Together with contractors they could develop a contract that would be to the mutual advantage of both parties and introduce more stability into the marketing system. A better understanding between growers and contractors would be expected to develop as they learned more of each other's problems.

A bargaining association should make possible a reduction in certain procurement costs. Contractors should find it more convenient and economical to do their bargaining with a single agency rather than with a number of individual growers. Individual contacts involved in the contract signup with growers could be eliminated. Growers' understanding of factors influencing the marketing of their product would be expected to improve as they participated in group discussions and in the decision-making process of marketing.

Requirements for Successful Operation

A bargaining association's main source of strength is the combined volume of its member-growers. The greater the proportion of total volume controlled, the greater the bargaining power of the association.

To be effective, growers must do a good job of assembling, analyzing, and preparing data to be used in negotiations with contractors. This would be necessary to establish and maintain the respect and cooperation of contractors in their dealing with the association. Even though the marketing season is short, it would be necessary to employ a small, highly efficient staff on a year-round basis to keep up with economic conditions in the industry and to be adequately prepared to negotiate with contractors at the appropriate time.

Growers will need to be concerned with the long-range welfare of the industry. Because of their increased bargaining power, growers should not yield to the temptation in the short run to extract prices for potatoes higher than that justified by supply and demand conditions. Such action would be a stimulus for increased production which might not be in the longrun interest of the grower. Growers would have to be willing to live up to their contracts. Only as the result of such support would the association be able to speak clearly and authoritatively for its members.

Factors That Might Affect Success

Growers in the Hastings area want to keep control of the industry in their own hands. Such control would be an important factor working for the successful operation of a bargaining association. Although it is doubtful whether the large independent growers would be willing to go along with any proposal that required surrendering an appreciable amount of their independence, operators of both large and small farms should benefit from the improved bargaining position they might acquire. Also, a strong bargaining association would likely forestall the need for Federal or State regulations for the area.

There are several factors that may limit the effectiveness of a bargaining association. Many growers and handlers channel a part of their supply to both the fresh and processed markets. In addition, the bulk of the processor's demand is for the same size potato that is in strongest demand by fresh market buyers.

If processors refused to negotiate with a grower bargaining association, the fresh market could not absorb the present production at prices acceptable to growers. Thus, it probably would be difficult for a bargaining association to obtain substantial economic concessions from processors.

Assuming that a grower bargaining association could negotiate successfully with contractors, there would be nothing to prevent processors from growing their own potatoes. However, it is believed that contract conditions could be stabilized to the advantage of all parties without encouraging processors to expand their own production activity in the area.

JOINT GROWER-GOVERNMENT PROGRAM

Both an areawide cooperative with one or more central sales agencies and a grower bargaining association have built in problems of voluntary membership. A joint grower-Government activity consisting of a marketing agreement and order program and a strong grower group might therefore be a better means of achieving total market responsibility. If adopted, a marketing agreement and order would require all handlers in the industry to abide by the regulation specified in the order. The grower cooperative could handle the selling of the crop and establish the price its various selling agents asked for the potatoes.

To accomplish the above goal would require the cooperation of most potato growers in the Hastings area. Either two-thirds of the producers voting must favor a proposed order or two-thirds of the total production of the commodity must be represented by the people voting favorably. For an areawide cooperative to operate effectively, it needs to handle 85 percent or more of the total production in the area.

The vehicle for a successful agreement and order program is present—the exchange. It could sponsor a Federal marketing agreement and order and use its influence to get it adopted. The exchange could also try to increase its membership so as to control a larger proportion of the potatoes marketed.

APPENDIX

In delineating and evaluating changes in the Hastings area potato industry between the 1957/58 and 1967/67 marketing seasons, the following methods of study and analysis were used.

GROWER SAMPLE

The names, addresses, and estimated 1967/68 potato acreage for all known growers in the Hastings area—Flager, Putnam, and St. Johns Counties—were obtained from the North Florida Growers Exchange. The records provided such information for 185 growers.

Acres of potatoes per grower were extremely skewed, with 40 percent growing less than 100 acres and 20 percent growing 250 acres or more (app. table 1).

The grower population was stratified into three size groups: (a) Small, less than 100 acres; (b) medium, 100-249 acres; and (c) large, 250 acres or more.

A disproportionate sampling rate was used in allocating the sample among the three size groups (app. table 2). A systematic random process was used to select sample and alternate growers from each size group. The number of growers in each size group was arrayed by counties so that county representation in the sample would be proportionate to the total number of growers in each of the three counties. Records were obtained from 16 small, 29 medium, and 21 large farms.

HANDLER SAMPLE

A probability sample of handlers could not be obtained since a complete list of them was not available.

Appendix table 1.—Distribution of potato growers and acreage, by size of farm, Hastings area of Florida, 1967/68

Size of farm	Growers		Acres planted		
	Number	*Percent*	*Number*	*Percent*	*Range*
Small	75	41	3,742	13	5- 95
Medium	73	39	11,064	39	100-242
Large	37	20	13,494	48	250-710
Total	185	100	28,300	100	5-710

Appendix table 2.—Sample allocation and related information for potato producers, by size of farm, Hastings area of Florida, 1967/68

Item	Size of farm			All farms
	Small	Medium	Large	
	Number	*Number*	*Number*	*Number*
Number of growers:				
Total	75	73	37	185
In sample	16	29	21	66
Sample fraction	.213	.397	.568	.357
	Acres	*Acres*	*Acres*	*Acres*
Number of acres:				
Total	3,742	11,064	13,494	28,300
In sample	993	4,649	8,081	13,723
Average number of acres per grower:				
All growers	49.9	151.6	364.7	153.0
In sample	62.1	160.3	384.8	165.4

Appendix table 3.—Number of handlers involved in disposing of the 1967/68 potato sample growers' crop and number of growers using each handler, Hastings area of Florida, 1967/68

Handler number	Number of growers using handler[1]	Handler number	Number of growers using handler[1]
	Number		*Number*
1	15	18	2
2	11	19	1
3	7	20	1
4	5	21	1
5	4	22	1
6	4	23	1
7	3	24	1
8	2	25	1
9	2	26	1
10	2	27	1
11	2	28	1
12	2	29	1
13	2	30	1
14	2	31	1
15	2	32	1
16	2	33	1
17	2	34	1
		Total[2]	87

[1]Some growers used more than 1 handler.
[2]Excludes 11 growers who sold their own potatoes.

The difficulty of contacting some handlers would have presented a major problem if a complete list had been acquired, as some were not operating in the area at the time of the study.

A list of handlers was prepared from information obtained from growers who reported the handler for their potatoes (app. table 3). The handler sample included only the first seven listed. Sales of these handlers plus sales made by individual growers accounted for about 73 percent of all Hastings area sales in 1967/68 (app. table 4).

Appendix table 4.—Distribution of potato sales by specified handlers, Hastings area of Florida, 1967/68

Handler	Volume of potatoes sold	Percentage of total
	Cwt.	*Percent*
Grower-handler[1]	1,380,212	32
Seven sample handlers	1,806,438	41
Other handlers[2]	1,197,350	27
Total Hastings area sales[3]	4,384,000	100

[1]Estimated total sales computed by expanding grower probability sample totals.
[2]Total sales for other handlers computed as the residual of total Hastings area sales after deducting grower-handler sales and 7 sample handlers sales.
[3]Total area sales for 1967/68 as reported in Florida Agricultural Statistics, Vegetable Summary 1968, Florida Crop and Livestock Reporting Service, Orlando, Fla.

METHOD OF OBTAINING DATA

Data were obtained from growers and handlers by personal interview and from pertinent records. Opinions and attitudes of handlers were given by firm owners or managers. Data on distribution of sales by grade and size were taken directly from a sample of sales invoices. Buyers listed on invoices were classified by the firms' owners or managers as retailers, processors, processor-suppliers, wholesale receivers, local buying brokers, and "others." The invoices also indicated whether the purchase was for the fresh or processed market.

METHOD OF ANALYSIS

Data from the grower sample were analyzed to show differences, by size group, in production, financing, contracting, marketing, and opinions. Weights were calculated for each group and used to expand sample results to population estimates.

Group weights are the reciprocals of the sampling fractions for the respective size groups. These were 0.213 for small, 0.397 for medium, and 0.568 for large farms. The reciprocals of these fractions yield 4.69, 2.52, and 1.76 as group weights for small, medium-size, and large farms, respectively. Thus a population total may be estimated by $W_1 S + W_2 M + W_3 L$ where W_1, W_2, and W_3 denote appropriate group weights and S, M, and L denote group totals for small, medium-size, and large farms, respectively.

Data from the handlers were analyzed to show distribution of sales by grade and size, utilization for the fresh or processed market, and type of buyer. The seven handlers did not constitute a probability sample, which placed a limitation on expanding the sample data to estimates for the population. However, this is not a serious limitation in view of the large proportion of the total area sales accounted for by these handlers.

Appendix table 5.—Selected characteristics of commercial potato operations, by size of farm, 66 growers, Hastings area of Florida, 1967/68

Item	Unit	Size of farm			All
		Small	Medium	Large	farms
Growers in sample	Number	16	29	21	66
Average age of growers	Year	49	49	48	49
Average years of experience in growing potatoes in the Hastings area	do.	22	21	23	22
Cash crops other than potatoes in the 1967/68 season:					
Cabbage:					
Growers producing	Number	6	12	11	29
Total acres planted	Acre	309	715	1,370	2,394
Acres planted per farm	do.	52	60	125	86
Total acres followed by potatoes	do.	28	93	250	371
Other:					
Growers producing	Number	0	2	2	4
Total acres planted	Acre	0	29	140	169
Acres followed by potatoes	do.	0	0	0	0

Appendix table 6.—Acres of potatoes planted and harvested, by type of potato and size of farm, 66 growers, Hastings area of Florida, 1967/68

Size of farm	White potatoes		Red potatoes		Both types	
	Planted	Harvested	Planted	Harvested	Planted	Harvested
	Acres	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*
Small	950	864	43	43	993	907
Medium	4,529	4,403	120	120	4,649	4,523
Large	7,692	7,263	389	389	8,081	7,652
Total	13,171	12,530	552	552	13,723	13,082

Appendix table 7.—Total potato sales and average sales per acre harvested, by type of potato and size of farm, Hastings area of Florida, 1967/68

Size of farm	White potatoes		Red potatoes		Both types	
	Total sales	Sales per acre	Total sales	Sales per acre	Total sales	Sales per acre
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Small	138,428	160	5,090	118	143,518	158
Medium	681,474	155	17,000	142	698,474	154
Large	1,261,575	174	59,719	153	1,321,294	173
Total or average	2,081,477	166	81,809	148	2,163,286	165

Appendix table 8.—Number of sample growers obtaining production loans, by size of farm and source of loan, Hastings area of Florida, 1967/68

Source of loan	Size of farm			All farms
	Small	Medium	Large	
	Number	*Number*	*Number*	*Number*
Production Credit Association	4	12	4	20
Bank	1	1	4	6
Marketing cooperative	4	4	1	9
Individual	0	0	0	0
Farmers Home Administration	6	4	0	10
Other	0	3	3	6
Combination of:				
Cooperative and bank	1	0	0	1
Individual and Production Credit Association	0	1	0	1
Individual and other	0	0	1	1
Cooperative and other	0	0	1	1
Farmers Home Administration and individual	0	1	0	1
Farmers Home Administration and bank	0	1	0	1
Bank and other	0	0	3	3
Bank, individual, and other	0	0	1	1
Not ascertained	0	1	0	1
Total	16	28	18	62

Appendix table 9.—Production credit used by sample growers, by size of farm and source of loan, Hastings area of Florida, 1967/68

Source of loan	Size of farm			All farms
	Small	Medium	Large	
	Dollars	*Dollars*	*Dollars*	*Dollars*
Production Credit Association	49,500	407,875	220,000	677,375
Marketing cooperative	72,500	160,000	155,000	387,500
Commercial bank	14,000	33,000	315,000	362,000
Farmers Home Administration	66,620	156,980	0	223,600
Individual	0	28,660	80,000	108,660
Other	0	60,000	320,000	380,000
Total	202,620	846,515	1,090,000	2,139,135

Appendix table 10.—Number of contracts held by sample growers and selected contract specification, by size of farm, Hastings area of Florida, 1967/68

Item	Size of farm			All farms
	Small	Medium	Large	
	Number	*Number*	*Number*	*Number*
Growers holding contracts	10	24	18	52
Bags contracted	30,450	238,050	[1] 508,800	[2] 777,300
Contract specification:				
Quality of potatoes --				
U.S. No. 1, Size A	5	6	6	17
85 percent U.S. No. 1, Size A or better	5	18	12	35
Dollars per hundredweight:				
U.S. No. 1, Size A --				
3.00	1	0	0	1
3.10	0	1	0	1
3.15	0	1	0	1
3.20	0	0	3	3
3.25	4	4	3	11
Percentage U.S. No. 1 --				
3.00	1	3	1	5
3.05	0	1	0	1
3.10	0	1	0	1
3.12	0	0	1	1
3.15	0	3	3	6
3.20	0	1	0	1
3.25	4	9	7	20

[1] 17 growers.
[2] 51 growers.

Appendix table 11.—Distribution of sample growers, by size of farm and type of handler, Hastings area of Florida, 1967/68

Type of handler	Size of farm			All farms
	Small	Medium	Large	
	Number	*Number*	*Number*	*Number*
Grower-handler	0	4	7	11
Marketing cooperative	10	8	1	19
Other agents	4	14	7	25
Combination of:				
Grower-handler and cooperative	0	2	1	3
Grower-handler and other agents	0	1	4	5
Grower-handler, other agents, and cooperative	1	0	0	1
Cooperative and other agents	1	0	1	2
Total	16	29	21	66

Appendix table 12.—Distribution of sales, by size of farm and type of handler, Hastings area of Florida, 1967/68

Type of handler	Size of farm			All farms
	Small	Medium	Large	
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*
Grower-handler	200	126,180	670,043	796,423
Marketing cooperative	112,437	225,599	20,000	358,036
Other agents	30,881	346,695	631,251	1,008,827
Total	143,518	698,474	1,321,294	2,163,286

☆ U. S. GOVERNMENT PRINTING OFFICE : 1970— 434-914/FLS-4

OTHER PUBLICATIONS AVAILABLE

Marketing Virginia White Potatoes: Buyers' Preferences and Practices, Marketing Research Report 682, Harold K. Jolley and Frank W. Bell.

Economic Aspects of Marketing Florida Avocados, Marketing Research Report 614, Clyde B. Markeson.

Economic Considerations in Marketing Sweetpotatoes from the Eastern Shore of Virginia, Clyde B. Markeson, Frank W. Bell, and Leo F. Zimmerman.

Coordinated Marketing Programs of Selected Fruit and Vegetable Cooperatives, Marketing Research Report 826, Richard S. Berberich.

Cooperative Marketing of Potatoes in Selected Areas of the United States, Service Report 108, Gilbert W. Biggs.

A copy of each of these publications may be obtained upon request while a supply is available from:

Farmer Cooperative Service
U.S. Department of Agriculture
Washington, D.C. 20250