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FARM BUSINESS NOTES

Prepared by the Divisions of Agricultural Economics and Agricultural Extension
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UNIVERSITY FARM, ST. PAUL

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Developments in the Cold Storage Locker Industry

A. A. DOWELL, D. C. DVORACEK, and R. E. OLSON

Cold storage locker plants have brought about the first significant change in farm slaughtering, processing, and storing of meat during modern times. Down through the years these operations were commonly performed on the farm by the farmer and his family. But with the growth of the locker industry an increasing proportion of the slaughtering, processing, and storing of meat has been moved from the farm and the home to the local cold storage locker plant.

The number of lockers in Minnesota has increased greatly since the first plant was opened at Waseca in 1935. By the end of that year, there were four plants in the state and by the end of 1936 there were 12 (figure 1). After 1936 the number increased rapidly and there were 383 plants at the close of 1941.

Expansion took place more slowly during the war because of the shortage of materials but proceeded at a rapid rate after hostilities ceased. By June 30, 1948, there were 644 locker plants in operation. Although there was no indication that the ultimate peak had been reached at that time, there was some evidence of a decline in the rate of expansion.

About three-fourths of the locker plants are located in the southern half of the state, where the number per county varies from 2 to 21 (figure 2). Most of the remaining plants are in the northwestern part of the state.

Approximately 75 per cent of the plants are privately owned and 25 per cent are cooperatively owned (figure 2). Of the privately owned plants, about three-fourths are owned by individuals and the other one-fourth by partnerships and corporations.

Indications are that about one-half of the locker plants in Minnesota are operated in connection with meat markets or grocery stores. About one-sixth are operated in connection with dairy plants, such as creameries and cheese factories, and one-tenth in connection with other businesses. Slightly less than one-fourth are operated as separate or independent businesses.

University Farm Radio Programs

HIGHLIGHTS IN HOMEMAKING

10:45 a.m.

UNIVERSITY FARM HOUR—12:30 p.m.

Station KUOM—770 on the dial

About 28 per cent of the plants of the state have less than 200 locker boxes each. An additional 44 per cent have from 200 to 399 lockers each, 16 per cent have from 400 to 599, 7 per cent from 600 to 799, and less than 5 per cent 800 or more. The number of locker boxes per plant varies from 36 to 1900, with an average of 336. There were 216,769 locker boxes in the 644

plants in operation at mid-year 1948.

On the basis of information supplied by locker patrons in 1948, it appears that about two-thirds of the patrons live on farms and one-third in towns. This is a much higher proportion of town patrons than there were during

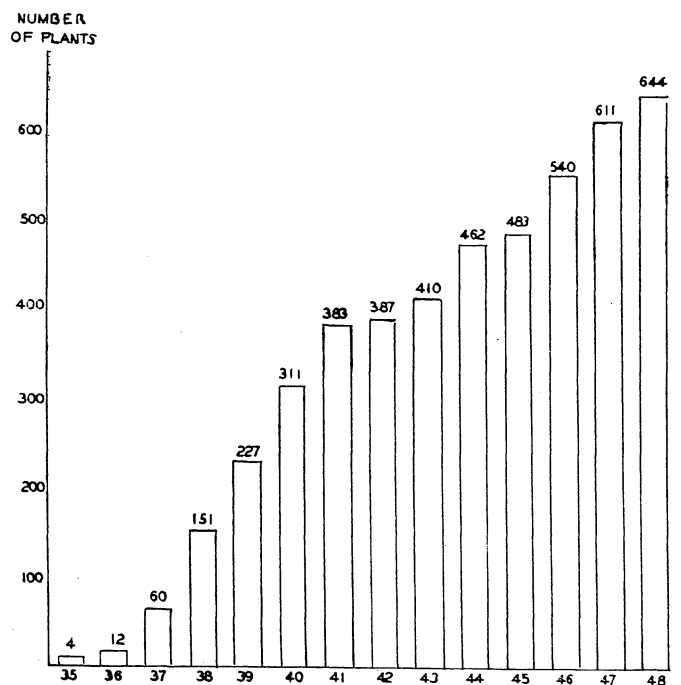


Fig. 1. Number of cold storage locker plants in operation, 1935-48.

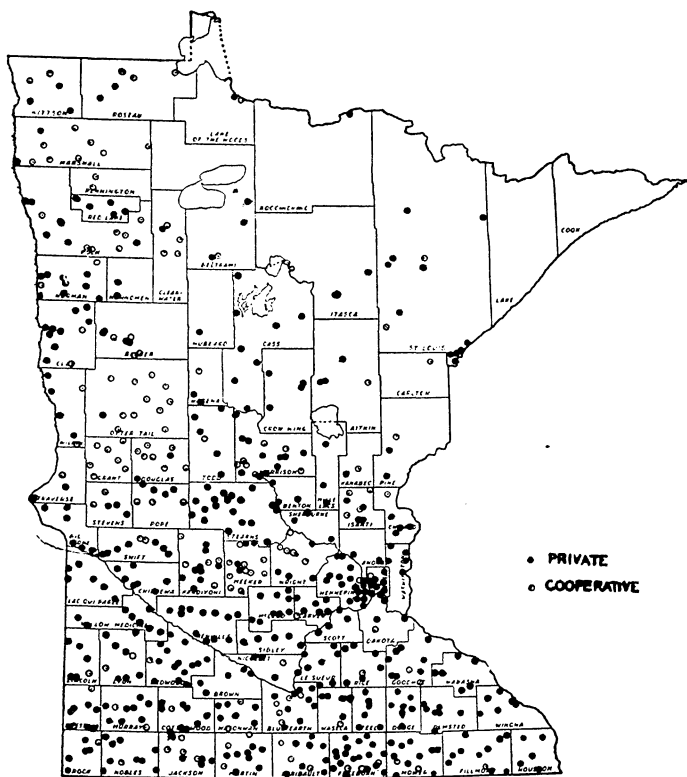


Fig. 2. Location of private and cooperative locker plants.

Table 1. Charges for Services Offered by Locker Plants in Minnesota, 1947

Kind of service	Service charges		
	Range	Average	Most frequent
	dollars		
Locker rental (per year):			
Drawer type	8.00-15.50	12.50	12.00
Door type	6.00-14.50	10.43	10.00
Slaughtering livestock (per head):			
Cattle	1.50- 6.00	2.41	2.00
Calves	0.50- 3.50	1.58	1.50
Hogs	1.25- 3.75	1.76	1.50
Sheep and Lambs	0.50- 2.50	1.26	1.50
	cents		
Processing meat and meat products (per pound):			
Chilling, cutting, wrapping, and freezing	1.00- 3.00	2.13	2.00
Freezing only	0.50- 2.50	1.30	1.00
Curing only	2.00- 6.00	3.50	3.00
Smoking only	1.00- 3.00	2.13	2.00
Curing and smoking	4.00- 7.25	5.52	5.00
Grinding only	1.00- 4.00	1.51	1.00
Grinding and making sausage	1.50-20.00*	7.48	
Rendering lard	2.25- 4.50	3.33	3.00
Processing poultry (per bird):			
Dressing and drawing chickens	10.00-35.00	18.13	15.00
Dressing and drawing turkeys	25.00-75.00	43.57	35.00
Wrapping and freezing chickens	5.00-25.00	9.36	5.00†
Wrapping and freezing turkeys	10.00-25.00	18.33	25.00
Processing fish (per pound):			
Wrapping and freezing	1.00- 5.00	2.70	2.00
Processing fruits and vegetables:			
Freezing only (per pint)	1.00- 4.00	2.40	2.00
Freezing only (per quart)	2.00- 7.00	3.68	3.00

* Charges varied greatly due to differences in kind of sausage.

† Almost as many plants charged 10 cents as 5 cents.

the early period of the industry's development. Only about 17 per cent of the patrons of locker plants in this state were town patrons in 1939.

Farm patrons rented an average of 1.33 lockers each. On the assumption that all available lockers were rented, and that two-thirds of all patrons were farmers, it appears that over 111,500 farmers, or the equivalent of 59 per cent of all farm operators of the state were renting lockers in June, 1948.

Since the cash costs of the locker service are greater than the costs incurred when animals are slaughtered and the meat processed on the farm, it is obvious that the interest of farmers in locker plants is not due chiefly to cash savings. Farmers are attracted to the locker plants largely because they make available the equivalent of fresh meat throughout the year and because they eliminate the work of processing and curing meat in the home. Many farmers believe that these advantages outweigh the added costs.

The greater relative increase in town patrons during recent years may have been due in part to cash savings but probably was due also to the shortage of meat during and after the war.

Charges for services by locker plants in Minnesota during 1947 are shown in table 1. The data were obtained by means of personal visits to each of a random sample of 60 locker plants in the state. The first column gives the range in charges among plants from the lowest to the highest, the second column gives the average charge for all plants, and the last column shows the most frequent charge.

In the case of farmers who supply their own animals, the cash cost per pound of meat stored is determined by the charges for slaughtering, processing, and storing and by the amount stored per locker. Since the locker rental is on an annual basis, the greater the volume per locker the lower the storage cost per pound.

The estimated amounts of various food products stored during 1947 in the 644 locker plants in the state are shown in the first column of table 2. The indicated amounts of the different kinds of meat would be roughly equivalent to the product from 80,900 head of 900-pound cattle, 303,000 head of 240-pound hogs, and 2,700 head of 95-pound lambs. Pork is the most important item, followed closely by beef, including veal. These together make up nearly 94 per cent by weight of all products stored.

Table 2. Kind and Amount of Food Stored in Locker Plants, Minnesota, 1947

Kind of food	Amount stored			
	Total for all plants	Average per plant	Average per locker box	Average per locker patron
	pounds			
Beef and veal	40,765,932	63,301	174.4	232.2
Pork	49,401,252	76,713	211.3	270.5
Lamb and mutton	127,908	199	.5	.7
Poultry	1,594,544	2,476	6.8	8.7
Fish and game	1,692,432	2,628	7.2	9.3
Fruits and vegetables	2,244,340	3,485	9.6	12.3
Total	95,826,408	148,802	409.8	533.7

Two and one-half per cent of the total consists of fruits and vegetables, a little less than 2 per cent each of poultry, and fish and game, and only a little over one-tenth of 1 per cent of lamb and mutton.

The average amounts of the various food products stored per locker plant, per locker box, and per patron are also shown in table 2. By relating the amounts of the different products stored to the locker rental charge (table 1) one can determine the cost of storage per pound.

Most of the pork, beef, veal, and lamb and mutton that is processed and stored in locker plants in this state is obtained from locally slaughtered animals. Only about 12 per cent of the beef and veal, 11 per cent of the relatively small amount of lamb and mutton, and 1 per cent of the pork are obtained from packing plants.

Of the animals slaughtered locally, the locker plants slaughtered two-thirds of the cattle, slightly more than two-thirds of the hogs and lambs, and slightly over one-half of the veal calves. Most of the rest of the animals were slaughtered by farmers.

Nearly three-fourths of the locker plants supply slaughtering service and most of the slaughtering of animals for these plants is performed by the plants. This indicates a tendency for farmers to shift the work of slaughtering to the locker plants wherever possible.

Use of Home Freezers in Minnesota

R. E. OLSON and D. C. DVORACEK

Increasing use of home freezers by individual families has aroused considerable interest in this relatively new type of food storage. A few freezers have been in use in Minnesota for a decade, but the majority have been acquired since the war. According to information supplied by 224 farm and 42 town owners of home freezers, about 50 per cent have owned their freezers less than one year and 84 per cent less than three years.

One-fourth of the farm families and over one-third of the town families who own home freezers also rent lockers. The capacity of home freezers averages 15 cubic feet for farmers and 11 cubic feet for town residents, the most usual sizes being 15 cubic feet for farmers and 8 cubic feet for town users (table 1). Considering both the home freezers and the lockers rented, the average total cold storage capacity is over 16 cubic feet per farm family and over 13 cubic feet per town family.

Most home freezer owners indicated that their freezer was of adequate size. Only 17 per cent of the farm fami-

Table 2. Kind and Amount of Food Stored and Percent Purchased by Farm and Town Owners of Home Freezers, Minnesota, 1948*

Kind of food	Amount in pounds				Per cent purchased	
	Per family		Per capita		Farm	Town
	Farm	Town	Farm	Town		
Beef and veal	307.5	204.4	65.4	53.8	29.7†	82.3†
Pork	252.5	109.8	53.7	28.9	8.7†	85.8†
Lamb and mutton	2.1	3.7	.5	1.0	46.2†	100.0†
Poultry	61.5	69.3	13.1	18.2	15.4	59.7
Turkeys	5.2	15.0	1.1	3.9	63.3	99.0
Fish and game	18.9	34.0	4.0	9.0	30.1	32.8
Total meat	647.7	436.2	137.8	114.8	20.5	76.5
Fruits and vegetables	89.0	85.4	19.0	22.4	18.8	12.2
Prepared food	20.1	24.4	4.3	6.4	\$	\$
Ice cream	52.1	29.5	11.0	7.8	\$	\$
Total food	808.9	575.5	172.1	151.4	46.2	85.8

* Includes food stored in locker plants by those who also rented a locker.

† Includes dressed meat purchased but not live animals purchased.

§ Not available.

lies and 26 per cent of the town families consider their freezers too small. No one reported owning a home freezer too large for his needs.

Farm families store more food per person per year than town families (table 2). Farmers also store more of all meats combined (but less lamb and mutton, poultry, turkeys, fish, and game) per capita than town residents. Farmers store relatively more pork and less beef. Town freezer owners store more fruits, vegetables, and prepared foods per capita.

Town families who use home freezers purchase a larger proportion of all foods stored except fruits and vegetables than farm families. Farmers purchase only about 20 per cent of all meat stored compared with 76 per cent purchased by town residents.

Users of home freezers are to a great extent dependent on nearby locker plants for processing services and additional storage space. Of 266 home-freezer owners reporting, 110 have all their meat cut, wrapped, and sharp frozen entirely at a locker plant and 49 have a part of their meat processed in this way. Since two-thirds of the home freezers do not have a separate sharp-freeze compartment, there is a need for sharp-freezing service when large quantities of meat are to be frozen at one time.

Over 80 per cent of the freezer owners checked rented a locker at a locker plant before acquiring a home freezer. Twenty-six per cent continued to rent a locker after buying a home freezer.

The primary advantages of having a home freezer were cited as: (1) the convenience of having frozen food close at hand, and (2) the opportunity to process and freeze small quantities of poultry, fruits, vegetables, baked goods, etc., whenever desired.

Since home freezers require a rather large initial investment the cash position of farmers and other prospective purchasers is an important factor. Though some may discontinue renting lockers when they buy a home freezer, they may continue to have slaughtering and processing performed at the locker plant.

Table 1. Size of Home Freezers Owned by 266 Families, Minnesota, 1948

	Size of home freezer in cubic feet						Not reporting	Total
	Less than 5	5 to 9.9	10 to 14.9	15 to 19.9	20 to 24.9	25 and over		
Farm	6	54	36	78	11	30	9	224
Town	5	17	6	10	2	1	1	42

Minnesota Farm Prices For May, 1949

Prepared by W. C. WAITE and K. E. OGREN

The index number of Minnesota farm prices for May, 1949, is 232. This index expresses the average of the increases and decreases in farm product prices in May, 1949, over the average of May, 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, May, 1949, with Comparisons*

	May 15, 1949	April 15, 1949	May 15, 1948		May 15, 1949	April 15, 1949	May 15, 1948
Wheat	\$ 2.05	\$ 2.08	\$ 2.33	Hogs	\$17.70	\$18.50	\$19.50‡
Corn	1.09	1.10	2.06	Cattle	19.80	19.50	23.60‡
Oats	.59	.62	1.05	Calves	24.00	26.50	24.70
Barley	1.00	1.02	2.06	Lambs-Sheep	23.30	23.53	21.24
Rye	1.18	1.13	2.19	Chickens	.22	.27	.20
Flax	3.68	5.74	5.85	Eggs	.398	.385	.375
Potatoes	1.50	1.50	1.60	Butterfat	.65	.66	.92
Hay	14.50	15.70	13.50	Milk	2.70	2.80	3.95
				Wool†	.44	.45	.46‡

* These are the average prices for Minnesota as reported by the United States Department of Agriculture.

† Not included in the price index number.

‡ Revised.

Minnesota farm prices declined about 2 per cent from April to May. All of the Minnesota farm commodities except cattle, eggs, rye, and potatoes shared in the general price decline. The index of prices paid by farmers for commodities bought, including interest and taxes, declined about one-half per cent from April to May.

The sharpest individual price drop, \$2.06 per bushel, occurred in the case of flax. This drop resulted from the termination on April 30 of Commodity Credit Corporation purchases of flaxseed at \$6.00 per bushel, Minneapolis basis. The 1949 crop will be supported through producer loans at \$3.99 per bushel, Minneapolis basis, which is equivalent to 90 per cent of parity to producers on April 1.

Indexes and Ratios for Minnesota Agriculture*

	May 15, 1949	May 15, 1948	May 15, 1947	Average May 1935-39
U. S. farm price index	240.6	271.6	255.6	100
Minnesota farm price index	231.8	288.9	247.2	100
Minn. crop price index	199.4	314.6	274.2	100
Minn. livestock price index	259.2	285.6	272.8	100
Minn. livestock product price index	221.0	283.5	219.2	100
U. S. purchasing power of farm products	123.3	136.5	140.2	100
Minn. purchasing power of farm products	118.8	145.2	135.6	100
Minn. farmers' share of consumer's food dollar	57.1†	58.9	60.9	46.3
U. S. hog-corn ratio	14.7	9.1	14.4	10.7
Minnesota hog-corn ratio	16.2	9.2	16.1	14.6
Minnesota beef-corn ratio	18.2	11.0	12.2	12.7
Minnesota egg-grain ratio	15.8	10.2	11.8	14.6
Minnesota butterfat-farm-grain ratio	33.7	25.3	22.9	29.7

* Explanation of the computation of these data may be had upon request.

† Figure for March, 1949.

UNIVERSITY FARM, ST. PAUL 1, MINNESOTA

Cooperative Extension Work in Agriculture and Home Economics
University of Minnesota, Agricultural Extension Division and United States
Department of Agriculture Cooperating, Paul E. Miller, Director. Published
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The Farm Price Situation

K. E. OGREN

Minnesota farm prices are now considerably below the postwar high set in January, 1948. The Minnesota farm price index in May was about 25 per cent under that high and 20 per cent below a year ago.

Price declines have not affected all farm commodities equally. Grain prices have declined more than other prices because of the large supplies on hand during the present crop year. The Minnesota crop price index in May was 37 per cent below a year ago, while the livestock product index was down 22 per cent and the livestock index only 9 per cent.

The May prices of wheat, oats, barley, rye, and flax were very near the announced government loan rates for the 1949 crop marketing season. The corn loan price will be set at 90 per cent of parity, which will be about 25 cents above the current cash price. The 1949 potato crop will be supported at 60 per cent of parity, instead of the 90 per cent rate in effect for the 1948 crop.

Prices of most livestock products will be supported at 90 per cent of parity during 1949. Eggs, butterfat, and dry milk solids are now being purchased by the United States Department of Agriculture in order to support current market prices at that level.

The United States Department of Agriculture has also announced hog price supports at 90 per cent of parity through March, 1950. The May hog price was about 100 per cent of parity, so that hog prices can drop almost \$2.00 before supports become effective. Seasonal price adjustments will raise the support level \$2.00 during the late summer. No supports are in prospect for cattle and sheep prices, which now average about 150 per cent of parity.

Thus, if announced government programs are effective price supports, Minnesota farmers can expect prices during the coming marketing season to average no less than present levels, except in the case of livestock and potatoes.

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