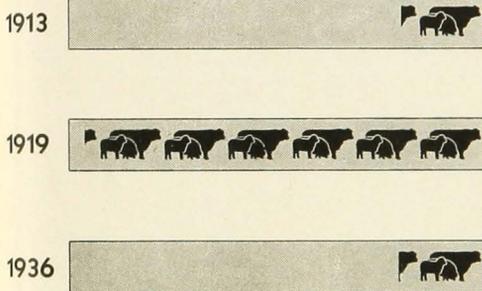


LIVESTOCK SHIPPING ASSOCIATIONS

A. A. DOWELL AND S. T. WARRINGTON

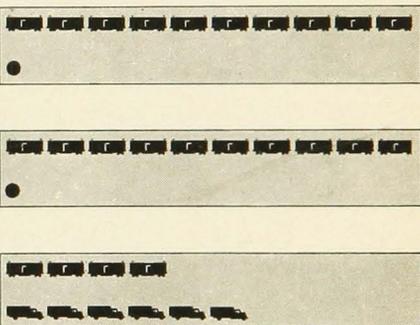
CHANGES IN MINNESOTA LIVESTOCK MARKETING

PROPORTION OF STOCK HANDLED BY SHIPPING ASSOCIATIONS . . .



Each Group Represents 10 per cent

PROPORTION OF RAIL AND TRUCK SHIPMENTS



Each Symbol Represents 10 per cent

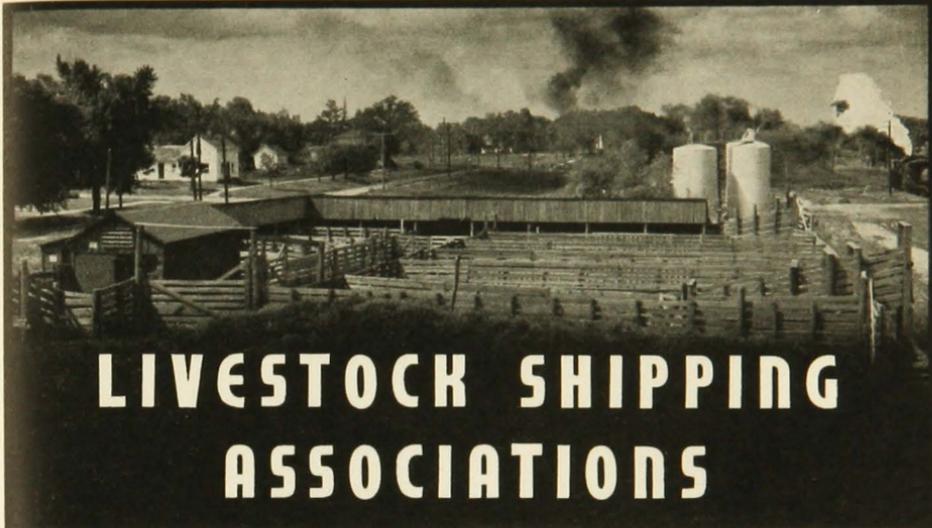
● Indicates Less Than 1 1/2 per cent Truck Shipments

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Why Were Shipping Associations Formed?

Why Have Many of Them Failed?

What Are the Marketing Problems Now?



LIVESTOCK SHIPPING ASSOCIATIONS

THE first objective of this bulletin¹ is to present an analysis of the organization and operation of the local cooperative livestock shipping associations in Minnesota during the year 1936. The data for this analysis were obtained from the officers of the local shipping associations in connection with a field survey made during the summer of 1937.² This is followed by a brief review of developments that have taken place with respect to the local shipping association movement in this state from its inception through 1936.

The second objective is to analyze the various factors responsible for the changes that have taken place in number of associations, number of members, and volume of business handled.

The third objective is to indicate some of the more important problems confronting individual producers in

the marketing of their livestock, and to discuss possible methods of assisting producers in the solution of these problems.

Number of Associations.—There were 262 active local cooperative livestock shipping associations in Minnesota in 1936. Of this number, 84 were located in the 25 southwestern counties, 77 in the 16 central counties, 45 in the 22 southeastern counties, 40 in the 10 northwestern counties, and 16 in the 14 northeastern counties. As shown in Figure 6, the areas of greatest concentration were in the west central and southwestern parts of the state, followed by the extreme northwestern and southeastern districts. Comparatively few associations were located in the immediate territory surrounding the South St. Paul, Minnesota; Sioux Falls, South Dakota; or West Fargo, North Dakota, public markets or the interior packing plants

¹ Accepted for publication September 28, 1938.

² This survey was conducted by the Cooperative Division of the Farm Credit Administration in cooperation with the Divisions of Agricultural Economics and Agricultural Extension of the Department of Agriculture of the University of Minnesota.

Table 1. Date of Organization and Date of Incorporation of 230 Local Livestock Shipping Associations in Minnesota, 1936

Year	Number of Associations		Year	Number of Associations	
	Organized	Incorporated		Organized	Incorporated
1908	1	.....	1923	6	7
1909	3	.....	1924	1	3
1910	8	.....	1925	5	7
1911	3	1	1926	5	7
1912	9	1	1927	4	9
1913	.....	1	1928	5	12
1914	19	2	1929	6	6
1915	27	8	1930	2	6
1916	15	1	1931	6	6
1917	18	8	1932	.....	3
1918	9	4	1933	.....	3
1919	14	7	1934	4	8
1920	11	10	1935	12	27
1921	7	5	1936	4	15
1922	9	7	Date not reported	6	.....
			No. not incorporated	.....	56

in the southern part of the state.

Organization.—In connection with the survey of the activities of local

Table 2. Number of Members of 230 Local Livestock Shipping Associations in Minnesota, 1936

Number of members	Number of associations
0- 24	1
25- 49	15
50- 74	24
75- 99	26
100-124	23
125-149	19
150-174	30
175-199	15
200-224	27
225-249	7
250-274	9
275-299	3
300-324	7
325-349	2
350-374	4
375-399	1
400-424	9
425-499	2
500-574	3
575 and over	3
	230
Total members	39,295
Average membership	171

shipping associations in 1936, fairly complete data were obtained from 230 of the 262 associations that were in operation during that year. Of these 230 associations, 35 per cent were organized between 1908 and the close of 1915. As shown in Table 1, the period of greatest activity was from 1914 to 1919. Nearly 60 per cent of these associations had been organized by 1919. Seventy-four per cent, or nearly three fourths, were organized by 1924. Consequently, only about one fourth of the local associations that were active in 1936 were organized during the preceding 12-year period, and of that number, more than one fifth were organized in 1935. It is thus apparent that the majority of the present active associations were organized during the period when livestock was shipped to market largely by rail.

Incorporation.—One hundred seventy-two of the 230 associations were incorporated under Minnesota cooperative laws, and two additional associations were incorporated under the general business corporation laws. Thus,

76 per cent of the associations that were in business in 1936 were incorporated. This is in marked contrast to the earlier years. For example, in 1919 only 4 out of 103 associations that reported on this point were incorporated.³ By 1931, however, 68 per cent of the reporting associations were incorporated.⁴

Incorporation is highly desirable as it limits the liability of individual members with respect to losses and other risks that are involved in assembling, shipping, and making final payment for the livestock handled. Furthermore, it gives legal status to the association, facilitating the prosecution of claims and the purchase or sale of equipment.

Affiliation.—A total of 183 associations reported that they were federated with some public market cooperative selling agency. In only one of these 183 associations was membership dependent upon membership in a general farm organization. The remaining 47 associations operated as independent organizations. They were affiliated neither with a public market cooperative selling agency nor with a general farm organization.

Membership.—The 230 associations reported a total membership of 39,295. Membership in the individual associations varied from 15 to 634, with an average of 171. As shown in Table 2, many of the associations were comparatively small. Nearly 29 per cent reported fewer than 100 members each; 66 per cent reported fewer than 200; and 78 per cent reported fewer than 225 members each. Only one third of the associations reported a membership of 200 or more.

Table 3. Membership Fees of 230 Local Livestock Shipping Associations in Minnesota, 1936

Amount of fee	No. of associations
\$ 0.00	87
0.25	15
0.50	53
1.00	61
1.50	1
2.00	3
2.50	2
5.00	3*
10.00	2†
15.00	1†
25.00	2†

* One of these associations was affiliated with another type of cooperative organization.

† Affiliated with another type of cooperative organization.

Membership fees.—Membership fees varied from nothing to a maximum of \$25. Eighty-seven associations, or 38 per cent of the total, did not require the payment of a membership fee. This was the most common type of association (Table 3). The most usual membership fee in associations requiring the payment of fees was one dollar; the next most common fee was 50 cents. Fifteen associations reported a fee of only 25 cents. Only 14 of the 230 associations required the payment of more than one dollar.

Contract.—None of the associations had contracts with members to insure delivery of livestock. Members were free to use the services of the association or to dispose of their livestock through other channels if they so desired.

Volume of Business.—The 230 associations from which complete data were obtained handled 89,908 cattle, 101,970 calves, 397,851 hogs, and 103,369 sheep and lambs, or a total of

³ Minnesota Agricultural Experiment Station Bulletin 201, p. 12.

⁴ Minnesota Agricultural Experiment Station Bulletin 302, p. 4.

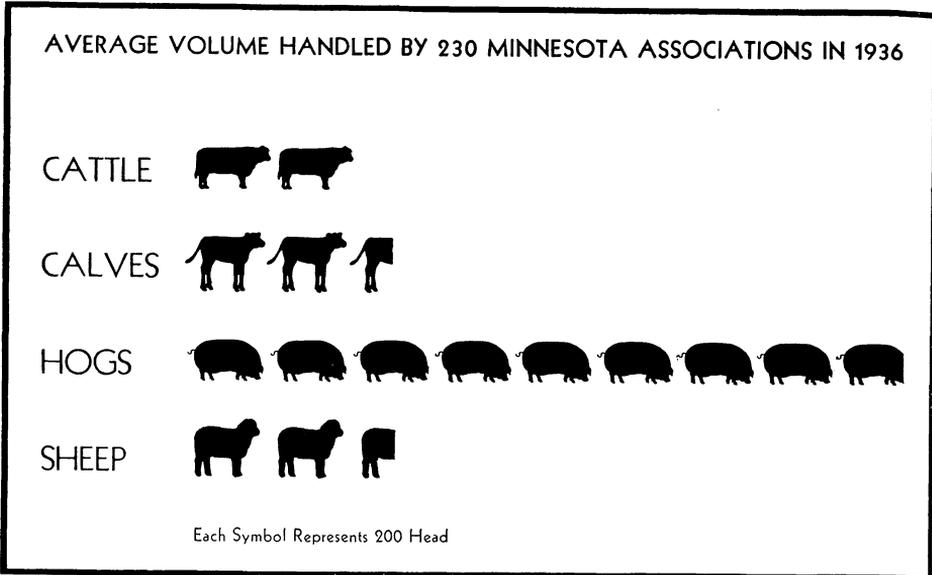


FIG. 1. AVERAGE NUMBER OF HEAD OF DIFFERENT SPECIES OF LIVESTOCK HANDLED BY 230 LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN MINNESOTA IN 1936

693,098 head of livestock, valued at 15 million dollars during 1936. As shown in Table 4 and Figure 1, the average association handled 391 head of cattle, 443 calves, 1,730 hogs, and 449 sheep and lambs, or a total of 3,013 head of livestock, valued at slightly more than 65 thousand dollars.

There was, however, a wide variation in the number of head of the various species and in the total number handled by the individual associations. The range in number of cattle varied from none to 3,750; of calves from none to 2,900; of hogs from 10

to 10,500; and of sheep and lambs from none to 4,800 head.

The relatively small number of head of the various species handled by many of the associations is shown in Table 5. One third of the associations handled fewer than 200 head of cattle, and nearly two thirds, fewer than 400 head. Only 10 per cent of the associations handled 800 or more cattle during the year, and in only two associations did the number exceed 1,500.

Much the same situation prevailed with respect to the number of calves handled. More than one third of the

Table 4. Business Handled by 230 Local Livestock Shipping Associations in Minnesota in 1936

	Total head	Av. no. per assn.	Total value	Av. value per assn.	Av. value per head
Cattle	89,908	391	\$4,225,601	\$18,367	\$46.99
Calves	101,970	443	1,146,051	4,983	11.24
Hogs	397,851	1,730	8,894,774	38,673	22.36
Sheep and lambs	103,369	449	764,327	3,323	7.39
Total	693,098	3,013	\$15,029,753	\$65,346	\$21.68

Table 5. Frequency Distribution Showing Volume of Livestock Handled by 230 Local Livestock Shipping Associations in Minnesota by Species During 1936

Number of head handled	Number of associations				Percentage of total associations				Cumulative percentage of associations			
	Cattle	Calves	Hogs	Sheep and lambs	Cattle	Calves	Hogs	Sheep and lambs	Cattle	Calves	Hogs	Sheep and lambs
None	2	3	.....	16	0.87	1.30	0.00	6.96	0.87	1.30	0.00	6.96
1- 99	29	39	13	44	12.60	16.96	5.65	19.13	13.47	18.26	5.65	26.09
100- 199	46	41	16	40	20.00	17.82	6.96	17.39	33.47	36.08	12.61	43.48
200- 299	38	24	10	33	16.53	10.43	4.35	14.35	50.00	46.51	16.96	57.83
300- 399	28	27	10	10	12.18	11.74	4.35	8.26	62.18	58.25	21.31	66.09
400- 499	27	28	11	10	11.75	12.17	4.78	4.35	73.93	70.42	26.09	70.44
500- 599	12	13	5	16	5.21	5.65	2.17	6.96	79.14	76.07	28.26	77.40
600- 699	13	9	6	7	5.65	3.91	2.61	3.04	84.79	79.98	30.87	80.44
700- 799	12	8	6	9	5.21	3.48	2.61	3.91	90.00	83.46	33.48	84.35
800- 899	6	8	11	7	2.60	3.48	4.78	3.04	92.60	86.94	38.26	87.39
900- 999	3	8	13	2	1.30	3.48	5.65	.87	93.90	90.42	43.91	88.26
1000-1499	12	12	30	16	5.22	5.22	13.04	6.85	99.12	95.64	56.95	95.21
1500-1999	1	5	20	4	.44	2.18	8.69	1.74	99.56	97.82	65.64	96.95
2000-2499	0	3	21	3	0	1.30	9.12	1.31	0	99.12	74.76	98.26
2500-2999	0	2	17	1	0	.88	7.39	.43	0	100.00	82.15	98.69
3000-3499	0	0	11	0	0	0	4.79	0	0	0	86.94	0
3500 and over	1	0	30	3	.44	0	13.06	1.31	100.00	0	100.00	100.00

Table 6. Frequency Distribution Showing Volume of Livestock Handled During 1936 by 230 Local Livestock Shipping Associations in Minnesota

Number of head handled	Number of associations	Percentage of total associations	Cumulative percentage of associations
1- 399	7	3.04	3.04
400- 799	18	7.83	10.87
800-1,199	20	8.70	19.57
1,200-1,599	20	8.70	28.27
1,600-1,999	28	12.17	40.44
2,000-2,399	19	8.26	48.70
2,400-2,799	21	9.12	57.82
2,800-3,199	15	6.52	64.34
3,200-3,599	9	3.92	68.26
3,600-3,999	9	3.92	72.18
4,000-4,399	9	3.92	76.10
4,400-4,799	10	4.35	80.45
4,800-5,199	9	3.92	84.37
5,200-5,599	7	3.04	87.41
5,600-5,999	6	2.60	90.01
6,000-6,399	2	0.87	90.88
6,400-6,799	2	0.87	91.75
6,800-7,199	1	0.43	92.18
7,200 and over	18	7.82	100.00
Total associations	230	100.00	

associations handled fewer than 200 head, and more than one half, less than 400 head. Less than 10 per cent of all associations handled 1,000 or more calves during the year.

The proportion of associations that handled a relatively small volume of sheep and lambs was even greater than was the case with cattle and calves. One fourth of the associations handled fewer than 100 head, while two thirds handled fewer than 400 head. There were, however, 27 associations that shipped over 1,000 head of sheep and lambs as compared with 22 associations that shipped over 1,000 head of calves, and 14 associations that handled over 1,000 head of cattle.

On the whole, the associations handled a much larger volume of hogs than of the other species of livestock. Only about one fifth of the associations handled fewer than 400 head, while more than one half of the asso-

ciations shipped 1,000 or more hogs during the year. A total of 30 associations shipped 3,500 or more hogs during the year.

The relatively small volume of total livestock handled by the majority of the associations is shown in Table 6. Three per cent of the associations shipped fewer than 400 head of all classes of livestock combined. Approximately 20 per cent handled fewer than 1,200 head; 40 per cent fewer than 2,000 head; 64 per cent fewer than 3,200 head, and 80 per cent fewer than 4,800 head. Less than 8 per cent of the associations sold more than 7,200 head of livestock during the year. The smallest association handled only 101 head of livestock, while the maximum number handled by one association was 20,450. The total value of the livestock sold by the smallest association was \$3,100, as compared with \$274,237 for the largest association.

Per cent of Total State Marketings.—Based on the assumption that the other 32 associations that were active during 1936 handled the same average volume of business as the 230 associations from which complete data were obtained, the 262 active local associations handled 102,420 cattle, 116,146 calves, 453,211 hogs, and 117,737 sheep and lambs. As shown in Table 7, the shipping associations handled 12 per cent of the cattle, 18 per cent of the calves, 12 per cent of the hogs, and 10 per cent of the sheep and lambs, or about 13 per cent of all meat animals sold by Minnesota farmers during 1936. The shipping associations thus handled a relatively larger proportion of calves and a smaller proportion of sheep and lambs than of cattle and hogs.

Method of Transportation.—Of the 230 associations, 96 reported that they shipped all livestock by rail, 98 shipped only by truck, and 36 used both methods of transportation. Approximately 53 per cent of the livestock handled by the local associations was shipped by

rail and 47 per cent by truck. As shown in Table 8, a larger proportion of sheep and lambs was shipped by rail than any of the other species. On the other hand, a higher proportion of hogs was forwarded by truck than was the case with the other species. As 59 per cent of all livestock receipts at the South St. Paul market arrived by truck during 1936, it is obvious that the local associations continued to rely upon the railroads to a greater extent than farmers and dealers who did not ship through the associations. However, most of the associations that have been organized during recent years have attempted to meet this issue by utilizing trucks in the movement of livestock to market. Of the 20 associations that have been organized since 1931, 17 shipped by truck only, while only two shipped entirely by rail and one utilized both methods of transportation.

Destination and Market Agency.—Approximately 63 per cent of all livestock handled by local shipping associations in 1936 was sold through co-

Table 7. Livestock Marketed from Minnesota Farms and Percentage Marketed through Local Livestock Shipping Associations in Minnesota in 1936*

Species	Total state marketings		Marketed through associations		Per cent marketed through associations	
	Number†	Value‡	Number	Value	Number	Value
Cattle	845,000	\$ 42,015,581	102,420	\$ 4,812,345	12.1	11.5
Calves	627,000	7,189,750	116,146	1,305,507	18.5	18.2
Hogs	3,661,000	74,697,853	453,211	10,132,308	12.3	13.6
Sheep	1,121,000	7,478,354	117,737	870,668	10.5	11.6
Total	6,254,000	\$131,381,538	789,541	\$17,120,823		
Average					12.6	13.0

* Estimated volume of business handled by 262 associations active in 1936. Actual data were obtained for 230 associations as shown in Table 4. It was assumed that the same average volume of business was handled by the other 32 associations.

† Data from "Farm Production from Meat Animals by States, 1935-1936," Bureau of Agricultural Economics, June 1937, pp. 12, 15, and 18.

‡ Division of Agricultural Economics, University of Minnesota.

Table 8. Type of Transportation Used by 230 Local Livestock Shipping Associations in Minnesota in 1936

Species	Total livestock handled	No. shipped by—		Per cent shipped by—	
		Rail	Truck	Rail	Truck
Cattle	89,908	49,494	40,414	55.0	45.0
Calves	101,970	56,167	45,803	55.0	45.0
Hogs	397,851	195,655	202,196	46.6	53.4
Sheep and lambs	103,369	63,647	39,722	61.5	38.5
Total	693,098	364,963	328,135		
Average				52.6	47.4

operative selling agencies and 14 per cent through private commission firms at public markets. Thus 77 per cent of the total volume of business handled by the associations was consigned to public markets and about 23 per cent was sold direct to packers.

There was, however, considerable variation with respect to market destination and selling agencies employed in the marketing of livestock. As shown in Table 9, 29 per cent of the hogs were sold direct, as compared with about 17 per cent of the calves,

14 per cent of the cattle, and 13 per cent of the sheep and lambs. Over 71 per cent of all cattle handled by the associations, and 67 per cent of the calves, 58 per cent of the hogs, and 73 per cent of the sheep and lambs were consigned to public market cooperative selling agencies. Private commission firms at public markets received 14 per cent of the cattle, 16 per cent of the calves, 13 per cent of the hogs, and about 15 per cent of the sheep and lambs. As Minnesota packers purchased 23 per cent of their cattle, 35

Table 9. Destination and Agency Through which Livestock Were Sold by 230 Local Livestock Shipping Associations in Minnesota, 1936

Species	Number sold at public markets			Number sold direct to packers	Total number sold
	By coop. commission companies	By private commission companies	Total at public markets		
Cattle	64,104	13,024	77,128	12,780	89,908
Calves	68,242	16,534	84,776	17,194	101,970
Hogs	229,560	52,611	282,171	115,680	397,851
Sheep and lambs	75,976	15,123	91,099	12,270	103,369
Total	437,882	97,292	535,174	157,924	693,098

Species	Percentage sold at public markets			Percentage sold direct to packers	Percentage sold at public markets and direct
	By coop. commission companies	By private commission companies	Total at public markets		
Cattle	71.3	14.5	85.8	14.2	100
Calves	66.9	16.2	83.1	16.9	100
Hogs	57.7	13.2	70.9	29.1	100
Sheep and lambs	73.5	14.6	88.1	12.9	100
Average	63.2	14.0	77.2	22.8	100

per cent of their calves, 53 per cent of their hogs, and 29 per cent of their sheep and lambs direct from producers and dealers in 1936, it is evident that the local associations relied much more heavily on public market outlets than was the case with farmers who sold outside the associations.

GROWTH AND DECLINE OF ASSOCIATIONS

A few scattered associations were in existence in various parts of the United States when the first local association in Minnesota was organized at Litchfield in 1908. By 1913 there were 115 active associations in operation, concentrated largely in the central and southeastern part of the state. This was followed by a period of rapid expansion throughout the livestock-producing districts, with a total of 655 active associations reported in 1919. By 1928, the number of active associations had declined slightly to 603,

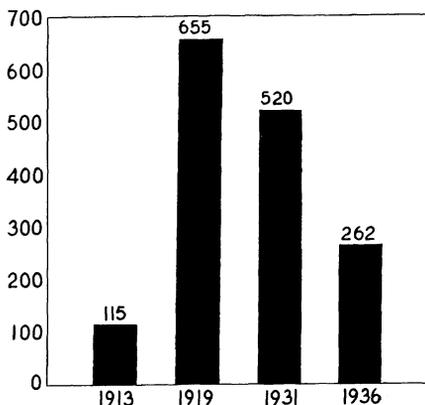


FIG. 2. NUMBER OF LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN MINNESOTA IN SPECIFIED YEARS

and by 1931 the number had declined to 520. As shown in Table 10 and Figure 2, by 1936 numbers had declined to 262 or to about 40 per cent of the number that were in active operation in 1919.

The number of associations, however, is not a satisfactory measure of the services rendered by local shipping

Table 10. Number of Local Cooperative Livestock Shipping Associations, Volume of Business, and Number of Members in Minnesota in 1913, 1919, 1931, and 1936*

	1913	1919	1931	1936
Number of associations	115	655	520	262
Average number of cars handled per association	45	58	..... §	49||
Per cent of total livestock handled by shipping associations	12.0	61.4	60.2||	12.6
Total value of livestock shipped	\$6,000,000	\$69,700,000	\$60,000,000	\$17,120,823
Number of members	25,000†	124,000‡	.....	45,000

* See Minn. Agr. Expt. Sta. Bul., 156 p. 8; Minn. Agr. Expt. Sta. Bul. 201, p. 5; Minn. Agr. Expt. Sta. Bul. 302, pp. 3 and 7.

† Estimated from data Minn. Agr. Expt. Sta. Bul. 156, p. 13.

‡ Estimated from data Minn. Agr. Expt. Sta. Bul. 201, p. 24.

§ Minn. Agr. Expt. Sta. Bul. 302, p. 5. Volume per association not given, but reported as larger than in 1919.

|| Total value of livestock marketed from Minnesota farms in 1931 was \$99,600,000. Thus, if \$60,000,000 represents the value of livestock marketed cooperatively, 60.2 per cent was handled by shipping associations.

|| Estimated on the basis of 25 cattle, 70 calves, 75 hogs, and 125 sheep and lambs per car.

associations. If the decline in number of associations had been accompanied by an increase in the volume of business handled by the remaining associations this might indicate progress, as the increased volume would be expected to result in greater effectiveness and efficiency and hence in greater net returns.

In 1913 an average of 45 cars of livestock was handled by each of the 115 associations. During 1919 the average volume per association had increased to 58 cars. Thus between 1913 and 1919 there was a sixfold increase in the number of associations and an increase of 29 per cent in the average volume of livestock handled by each association. The average volume of business handled by the local associations in 1931 was slightly greater than in 1919. This indicates that, in general, it was the smaller associations that were discontinued between 1919 and 1931. Between 1931 and 1936, however, the sharp decline in number of associations was accompanied by a decline in the average volume of business handled. In 1936 the average association shipped 49 cars of livestock as compared with 58 cars in 1919.

In 1913 approximately 12 per cent of the livestock marketed by Minnesota farmers was handled by local shipping associations (see pictogram on cover). During 1919 about 61 per cent of the total state marketings was handled by the local associations and during 1931 about 60 per cent. During 1936 local associations handled slightly less than 13 per cent of the livestock marketed from Minnesota farms.

Estimates based upon the earlier reports indicate that there were approximately 25,000 members of local shipping associations in Minnesota in

1913. Thereafter numbers increased sharply to a total of about 124,000 in 1919. By 1936 the number of members had declined to about 45,000, or 36 per cent as many as in 1919.

Thus the period from 1913 to 1919 was characterized by widespread interest in local shipping associations throughout the state. The number of associations, number of members, and volume of business increased rapidly. Between 1919 and 1931 there was a decline of 20 per cent in the number of associations but an increase in the average volume of business handled by the active associations, so that the proportion of total state marketings handled by the associations declined only slightly. Following 1931 there was a sharp decline not only in the number of associations but in the number of members and in the total volume of business handled. During 1936 the 262 active associations handled about the same proportion of the total state marketings as was handled by the 115 active associations in 1913. Such is the picture of the local cooperative livestock shipping association movement in Minnesota.

It is obvious that if the present trend continues, many of the shipping associations that dotted the livestock-producing areas of the state in the decade of the 'twenties will soon disappear. It is, therefore, desirable that the situation be analyzed in the light of all available facts. In connection with such an analysis, it is necessary to discuss briefly the various factors that were responsible for the organization of local shipping associations. This is followed by a more extended discussion of the factors responsible for the subsequent decline.

WHY WERE SHIPPING ASSOCIATIONS ORGANIZED?

Cooperative livestock shipping associations were organized by producers primarily to reduce marketing costs. During the period when practically all livestock moved to market by rail, producers with less than carload lots were not able to take advantage of full car rates. In some cases, it is true, neighbors pooled their shipments to provide a full carload, but such instances were not common and the average farmer with a few surplus animals was largely dependent on the local dealer.

Before the advent of the telephone and rural free delivery, farmers were not able to keep in close touch with the market. Even after these services were made available, market information was not received for from one to several days after the actual transaction had taken place. Furthermore, market grade standards were not well developed, and accurate, impartial reports were not available until after the Market News Service was established by the Federal Government in 1916.

Consequently, it was felt that the local dealers were either taking advantage of the farmers' lack of knowledge of market conditions, or protecting themselves unduly against the vagaries of the market by paying less than the current value of the livestock. In addition to the widespread belief that dealers were exacting undue margins for their services it was felt that the local dealers were not paying for quality, but rather bidding a generalized price for the livestock offered for sale in their respective trade territories.

Viewed in the light of the present, it appears that the underlying principle back of the cooperative livestock ship-

ping association movement was fundamentally sound. The local shipping association enabled the individual producers to consign small lots whenever they were ready for market. Upon arrival at the market they could be sold separately, and the producer paid for his particular shipment.

WHY HAVE SHIPPING ASSOCIATIONS DECLINED?

The many economic changes that have occurred since the World War are responsible for the high rate of mortality among cooperative livestock shipping associations during this period. The rapid extension of hard-surfaced, all-weather roads and the increase in number and efficiency of motor trucks have had a marked effect not only upon the method of marketing but in the choice of market outlets. The local shipping association movement developed during the rail-

Table 11. Percentage of Livestock Arriving by Truck at South St. Paul, 1920-1937*

Year	Cattle	Calves	Hogs	Sheep and lambs	All livestock
1920	1.8	2.5	1.6	0.4	1.5
1921	2.9	3.2	1.9	0.8	2.0
1922	2.6	4.7	2.6	2.1	2.7
1923	3.4	6.5	3.7	2.7	3.8
1924	4.3	9.0	4.0	4.5	4.6
1925	5.1	11.9	6.0	5.5	6.5
1926	6.4	14.4	8.5	5.8	8.5
1927	8.1	17.3	11.4	8.1	11.0
1928	12.5	25.0	14.6	9.1	14.4
1929	14.3	33.1	17.0	9.9	16.7
1930	20.6	45.5	26.6	12.0	24.0
1931	29.7	59.7	41.9	16.6	35.3
1932	40.6	66.3	52.4	20.9	43.3
1933	47.9	72.4	59.3	22.7	48.8
1934	34.6	53.0	76.0	24.1	47.8
1935	49.9	77.5	84.6	30.7	55.1
1936	49.2	71.8	81.9	32.1	59.4
1937	57.1	80.4	83.2	41.5	65.1

* Data compiled from Reports of the South St. Paul Union Stock Yards Co.

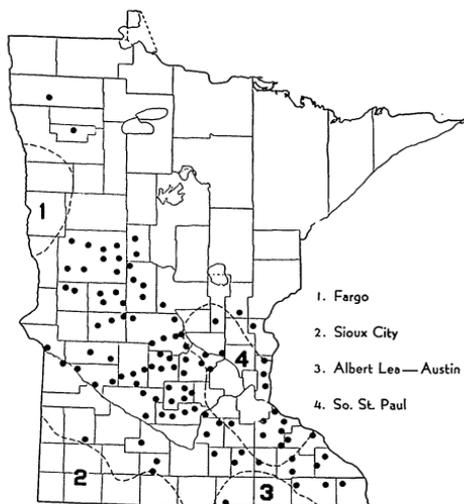


FIG. 3. DISTRIBUTION OF LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN MINNESOTA IN 1913

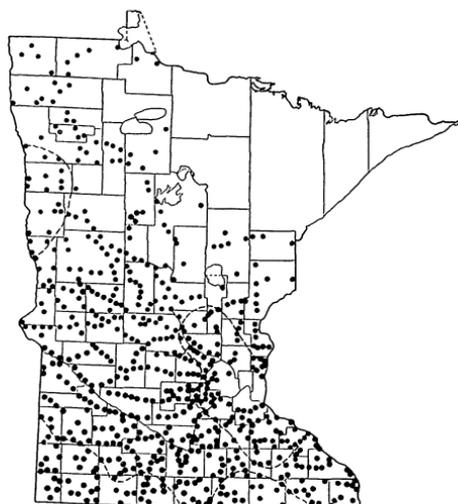


FIG. 4. DISTRIBUTION OF LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN MINNESOTA IN 1919

road era and was dependent, at least in part, upon that method of transportation. Livestock was hauled in wagons or driven overland to the nearest railroad station, where it was loaded on cars and consigned to market. With the coming of the motor truck, livestock was loaded at the farm and moved direct to the public market or packing plant.

During the early trucking period, road conditions and the type and size of trucks were such that trucking was necessarily confined to areas near the market place. In earlier studies made by the Division of Agricultural Economics, it was found that the first shipment of livestock by motor truck to the South St. Paul market was made on September 17, 1912.⁵ As late as 1920, only 1.5 per cent of all livestock receipts at that market arrived by motor truck. Before 1924 most of

the livestock arriving at South St. Paul by motor truck came from within a radius of 40 miles. During 1929 about 94 per cent of all truck receipts came from within a radius of 75 miles of the market. More recently truck service has been extended to all parts of the state. Truck receipts during 1937 included 83 per cent of the hogs, 80 per cent of the calves, 57 per cent of the cattle, and 42 per cent of the sheep and lambs, or 65 per cent of all livestock receipts at South St. Paul. The steady growth in truck receipts at that market is shown in Table 11.

The number and location of local shipping associations in 1913 are shown in Figure 3. It will be noted that the early associations were concentrated largely in central and southeastern Minnesota. By 1919 all livestock-producing areas in the state were supplied with associations. This is clearly

⁵ Minnesota Agricultural Experiment Station Bulletin 273, p. 3.

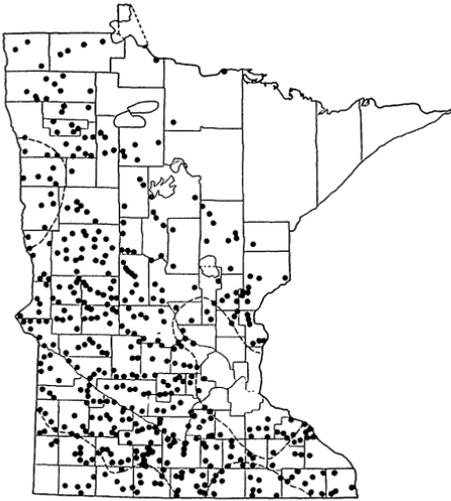


FIG. 5. DISTRIBUTION OF LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN MINNESOTA IN 1931

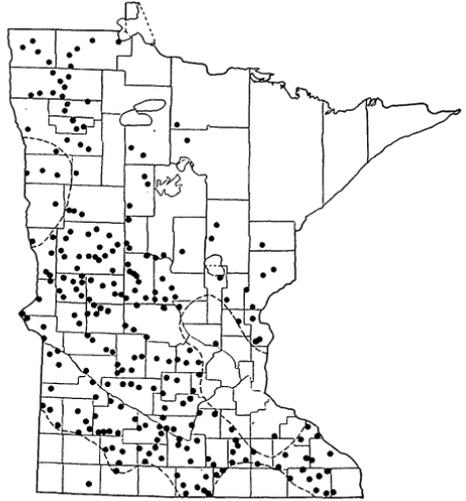


FIG. 6. DISTRIBUTION OF LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN MINNESOTA IN 1936

indicated in Figure 4. In a former study it was found that one half of the shipping associations that failed in Minnesota between 1920 and 1930 were located in South St. Paul trucking territory.⁶ Another high-mortality area was found in the southwestern part of the state in the Sioux Falls, S.D., trucking territory. These areas of high mortality will be noted by comparing the location of associations in 1919 and in 1931.

The rapidity with which the number of local associations decreased between 1931 and 1936, when the number was reduced from 520 to 262, is shown in Figures 5 and 6. In 22 southeastern counties numbers declined from 107 to 45, or a loss of 58 per cent; in 25 southwestern counties numbers declined from 203 to 84, or 59 per cent; in 16 east central counties, from 114 to 77, or 32 per cent; in 14 northeastern

counties, from 43 to 16, or 63 per cent, and in 10 northwestern counties, from 53 to 40, or 25 per cent.

Thus the greatest relative reduction occurred in the northeast counties followed closely by the southern districts. In the northwestern district, where a higher proportion of the associations continued to ship by rail, the relative losses were smallest. In the central district the smallest losses occurred in the western counties and the heaviest losses in the counties nearer the South St. Paul market. The high rate of decline that occurred between 1919 and 1931 in number of associations in the trucking area of the South St. Paul and Sioux Falls, South Dakota, public markets continued through 1936.

The improvement in trucks and hard-surfaced roads has been one of the principal factors responsible for the decline in number of local shipping as-

⁶ Minnesota Agricultural Experiment Station Bulletin 278, p. 26.

Table 12. Direct Purchase of Livestock by Minnesota Packers Expressed as Percentages of Total, 1923-1937*

Year	Cattle	Calves	Hogs	Sheep and lambs
1923	8.7	8.9	34.5	3.9
1924	9.2	16.1	32.8	1.6
1925	9.2	14.6	33.1	1.1
1926	12.9	15.9	38.3	2.4
1927	12.5	21.1	44.7	5.9
1928	13.6	21.1	48.8	9.2
1929	17.0	25.4	53.5	12.1
1930	16.6	26.7	50.7	12.5
1931	20.3	26.1	50.8	21.3
1932	26.4	33.1	58.2	26.6
1933	25.9	39.2	59.6	28.7
1934	25.3	39.6	59.4	39.5
1935	24.3	40.1	64.5	33.5
1936	22.7	34.8	53.5	29.0
1937	23.7	35.5	57.5	29.0

* Data supplied by the Livestock, Meats, and Wool Division, Bureau of Agricultural Economics.

sociations in Minnesota. It is obvious that a sharp decline in number of associations would have taken place even though there had been no change in the proportion of livestock sold at public markets.

The convenience of the truck also contributed to the decline of shipping associations by making accessible to individual farmers an increased number of market outlets. During the railroad era, most of the livestock of the state was shipped to public markets, as rail lines converged at these strategic points. With the extension of good roads and the increase in numbers and efficiency of motor trucks, it was possible to route livestock direct to other outlets.

Furthermore, a number of packers not located on the South St. Paul market expanded their operations greatly following the World War. These packers had always purchased the greater portion of their supplies direct from nearby producers. As their op-

erations were expanded, they extended their buying services farther and farther into the producing territory. Trucks and good roads facilitated this movement from farm to packing plant.

The growth in direct purchases by Minnesota packers from 1923 to 1937 is shown in Table 12. Direct purchase of cattle by Minnesota packers increased from 8.7 per cent in 1923 to 23.7 per cent in 1937; calves, from 8.9 per cent to 35.5 per cent; hogs, from 34.5 per cent to 57.5 per cent, and sheep and lambs, from 3.9 per cent to 29.0 per cent. Data for the United States as a whole are presented in Table 13. The percentage of total federally inspected slaughter of cattle in the United States purchased direct by packers increased from 10.4 per cent in 1923 to 21.0 per cent in 1937; calves, from 13.8 per cent to 31.6 per cent; hogs,

Table 13. Percentage of Total Federally Inspected Slaughter in the United States Purchased Direct by Packers by Years, 1923-1937*

Year	Cattle	Calves	Hogs	Sheep and lambs
1923	10.4	13.8	23.9	14.0
1924	9.2	12.9	22.1	16.4
1925	9.3	12.8	24.0	17.6
1926	10.2	14.7	27.2	15.4
1927	10.1	15.8	32.4	14.6
1928	10.1	14.9	35.4	13.7
1929	11.1	16.6	40.2	16.0
1930	11.8	18.2	40.1	15.3
1931	12.7	20.3	42.2	17.3
1932	15.4	24.6	43.1	19.8
1933	16.5	26.3	43.8	21.2
1934	17.6	27.6	41.4	23.6
1935	16.4	23.5	43.9	22.5
1936	19.0	26.5	47.4	26.0
1937†	21.0	31.6	48.9	31.6

* Data from "Livestock, Meats, and Wool Market Statistics and Related Data, 1936," Bureau of Agricultural Economics, April, 1937, pp. 98-99.

† Data supplied by the Livestock, Meats, and Wool Division, Bur. of Agr. Economics.

from 23.9 per cent to 48.9 per cent, and sheep and lambs, from 14.0 per cent to 31.6 per cent. In Iowa, 73.8 per cent of the hogs were marketed direct in 1935; 25.5 per cent of the cattle; 70.9 per cent of the calves, and 36.7 per cent of the sheep and lambs.⁷

As the shipping associations were organized to assemble and ship livestock to the public market, they served largely as forwarding agencies rather than as organizations equipped to make selection of the best outlet from a choice of several. They were apparently not in position to meet the competition of the new outlets, which were able to attract business on the basis of advantageous location, lower marketing costs, and certain other advantages inherent in the existing freight-rate structure on livestock and livestock products from interior Minnesota points to the eastern consuming centers.

Another factor that no doubt contributed to the decline in shipping associations was the fact that the management of a local livestock shipping association was usually only a part-time occupation. A farmer or some one in another line of business devoting only part of his time to the association can not be expected to have or acquire the experience required for best results in a field such as marketing that calls for specialized skill. To maintain an effective shipping association, the volume of business should be large enough to command the full time of an experienced manager.

The development and expansion of the Federal Market News Service, the extension of the telephone, the introduction of the radio, improvements in

mail service, and progress with respect to grade standards have all served to bring market information closer to the individual producer. This in turn has resulted in removing, at least in part, one factor that was responsible for the widespread interest in the early type of shipping association.

As previously stated, 61 per cent of the livestock marketed from Minnesota farms was handled by local cooperative shipping associations in 1919, while only about 13 per cent was marketed through the local associations in 1936. However, the situation in the public market is somewhat different. In 1919, when there were 655 local associations in Minnesota, a comparatively small amount of livestock was sold through the one cooperative selling agency that was in operation on the South St. Paul Market at that time. One additional cooperative selling agency was established in 1921 and a third in 1923. By 1924, 33 per cent of livestock receipts at the South St. Paul market were handled by these three cooperative selling agencies. As shown in Tables 14 and 15, these agencies handled from 35 to 38 per cent of the total market receipts from 1928 through 1932. During 1933, when a fourth cooperative selling agency was established, the four South St. Paul cooperatives handled 40 per cent of the total market receipts. The proportion of total business, however, declined sharply to 30 per cent the following year, while in 1935 the four public market cooperative selling agencies handled about one third of the total receipts at South St. Paul. Although figures are not available for one of

⁷ Data from Ph.D. thesis presented to the Graduate School of the University of Minnesota by S. H. Thompson, 1937, pp. 409-412.

Table 14. Total Number of Cattle and Calves, Hogs, and Sheep and Lambs Sold by Cooperative Selling Agencies of South St. Paul 1924 to 1937*

Number of head of livestock sold by cooperatives				
Year	Cattle and calves	Hogs	Sheep and lambs	Total
1924	356,964	1,380,012	75,303	1,812,279
1925	428,065	1,308,866	93,401	1,830,332
1926	499,129	1,297,937	133,235	1,930,301
1927	295,928	978,975	109,386	1,384,289
1928	401,952	1,236,430	188,611	1,826,993
1929	453,941	1,305,970	289,240	2,049,151
1930	480,850	1,306,243	373,837	2,160,930
1931	509,872	1,522,396	416,079	2,448,347
1932	453,662	1,212,938	386,830	2,053,430
1933	511,742	1,310,303	444,094	2,266,139
1934	511,727	851,532	389,773	1,753,032
1935	414,057	408,379	376,707	1,192,143
1936†	481,263	782,712	426,411	1,690,384
1937†	423,763	585,759	341,543	1,351,065

* Data on number of head of livestock by species and total number for 1924 to 1926 from U.S.D.A. Tech. Bul. 57, p. 3, and for 1927 to 1937 from Cooperative Division, Farm Credit Administration.

† Figures for 1936 and 1937 do not include livestock handled by one agency which discontinued operations early in 1937.

these agencies, which discontinued operations early in 1937, the percentage of total receipts handled by the remaining three cooperative agencies was about the same in 1936 as in the preceding year, and declined to 31 per cent in 1937.

Although the proportion of total receipts handled by the cooperative selling agencies on the South St. Paul Market was approximately the same in 1936 as in 1924, there was a marked shift in the nature of the consignments. Since the public market cooperatives were established primarily to handle the business of the local shipping associations, the greater portion of the business in 1924 represented consignments from local shipping associations in Minnesota, while in 1936 it appears that less than one third of the business consigned to them was forwarded by local shipping associations in Minnesota. The balance of their business was consigned by individual producers

and dealers in Minnesota and individual producers, dealers, and local shipping associations outside the state. Thus, the volume of business handled by the public market cooperative selling agencies at South St. Paul has been maintained at about the 1924 level, by encouraging consignments from individual producers who dropped out of the local shipping associations, and by soliciting business from more distant territory.

The majority of the local associations that have remained in business have continued to patronize the public market cooperatives. For example, in 1936 the local shipping associations in Minnesota shipped 63 per cent of their total volume to cooperative selling agencies on public markets, as compared with 14 per cent to private commission companies on public markets, and 23 per cent direct to packers. The loss in local shipping association business handled by the public market co-

Table 15. Percentage of Total Market Receipts Handled by Cooperative Selling Agencies at South St. Paul, 1924 to 1937*

Year	Percentage of total market receipts			
	Cattle and calves	Hogs	Sheep and lambs	Total
1924	27.0	36.8	15.8	32.6
1925	26.2	36.0	17.1	31.5
1926	26.1	37.6	17.2	31.5
1927	18.7	31.5	15.5	25.7
1928	27.0	42.6	21.2	34.6
1929	31.8	45.5	25.4	37.7
1930	35.9	47.3	27.6	39.6
1931	36.0	46.8	24.6	38.5
1932	36.8	46.6	25.4	38.3
1933	37.9	47.8	28.6	40.1
1934	22.1	45.2	24.6	30.3
1935	29.8	43.8	27.6	32.6
1936†	28.9	39.2	28.7	32.8
1937†	27.8	36.8	26.5	30.6

* Percentages based upon data given in Table 14 and total receipts as published in the So. St. Paul Union Stock Yards Company Reports.

† Figures for 1936 and 1937 do not include livestock handled by one agency which discontinued operations early in 1937.

operatives has, therefore, been due largely to the decline in the number of local associations. However, some of the loss has been due to the fact that about one fourth of the consignments of local shipping associations moved direct to packers in 1936.

The highest proportion of total state marketings appears to have been shipped and sold cooperatively about 1924. Since that time there has been a sharp decline in the volume of business handled by the local associations. This decline was not reflected in an equivalent decline in the volume of Minnesota livestock handled by the public market cooperatives, as some individual producers shipping by truck have continued to patronize cooperative selling agencies. However, even when allowance is made for this shift in method of marketing, the fact remains that large numbers of producers who formerly shipped through the local associations and sold through the public mar-

ket cooperatives are now marketing individually through other channels.

THE INDIVIDUAL PRODUCER'S MARKETING PROBLEMS

With the decline in number of local associations and in the average volume of business handled by the remaining associations, an increasing number of producers have assumed the responsibility of marketing their own livestock. This raises the question as to whether the individual producer is in position to market his livestock to the best advantage. As has been shown, the producer's bargaining ability has been materially strengthened as a result of the Federal Market News Service, radio, telephone, improvements in grade standards, and the extension of hard-surfaced roads and more efficient motor trucks. Whereas transportation was formerly the chief limiting factor

to individual action, this difficulty has been largely removed throughout the trucking area of a given market or group of markets.

Though much progress has been made with respect to grade standards, grading still remains one of the major problems confronting the individual producer. In a comprehensive study made by the Bureau of Agricultural Economics in 1934, it was found that 20 public markets used 10 different classifications for hogs, 29 auctions used 11 different classifications, 55 packing plants used 25, and 90 concentration yards used 26 classifications.⁸ Altogether, 72 different systems of classification were in use at 204 different markets. The confusion in grade terms makes it most difficult to interpret even the Federal Market News quotations in terms of particular outlets and a given lot of hogs. Although fat cattle are more often sold by grade and prices quoted for the different grades, it is perhaps even more difficult for the average farmer to appraise accurately the grade of cattle than of hogs.

Perhaps the most difficult task of all is that of the choice of market outlets. In many instances producers are so located that consignment to a single market is the only practical method of disposal. So long as this outlet is a public market, the marketing problem largely disappears for the livestock can be consigned for sale through a cooperative or private selling agency on that market. The sorting and selling are thus placed in the hands of an experienced agent. The problem becomes more complicated, however, if the only logical outlet is a private mar-

ket. And it becomes even more complicated if a number of outlets are available, as is the case throughout much of the heavy livestock-producing area of the state.

Numerous studies have shown that no two public or private markets move in the same direction or to the same extent day after day.⁹ If the differences in price between markets were constant, the shipper could select his best outlet once and for all. While all markets are influenced by the same basic factors, there are factors which result in frequent variation in the differentials between the various markets. These differences are large enough so that sellers who have a choice of several outlets need to be in touch with all of them if they are to select the best market for their particular product on any given day. The variations within a particular lot of livestock may make division for sale to more than one outlet advantageous.

The average farmer lacks the time, facilities, and experience necessary for keeping in constant contact with a number of outlets, their prices, and preferences as to grade and weight classification. Even if the grade terms and hence the prices quoted could be related to a given lot of livestock, the number involved would not warrant dividing shipments among several outlets. Furthermore, the expense of telephone calls to the different outlets represents a considerable item to an individual producer. For these reasons, it appears logical to conclude that large numbers of Minnesota livestock producers are confronted with marketing problems that could be met more effectively through group action.

⁸ "The Direct Marketing of Hogs," Bureau of Agricultural Economics, Misc. Publ. 222, p. 108.

⁹ "The Cooperative Marketing of Livestock," Nourse and Knapp, The Brookings Institution, 1931, pp. 369-426. Also "The Direct Marketing of Hogs," Misc. Publ. 222, Bureau of Agricultural Economics, pp. 158-182.

LOCAL OR DISTRICT MARKETING ASSOCIATIONS

As previously explained, the decline in the number of local shipping associations and in the total volume of business handled was due to a number of fundamental economic changes, including the extension of hard-surfaced roads and improvements in the efficiency and dependability of trucks, the increase in the number of available market outlets, and the improvements in market news service and grade standards for livestock. The marketing problems arising out of these changes include: securing daily price information from possible outlets; grading of livestock to take advantage of the differences in prices paid; coordinating the transportation of livestock, and the actual sale of the livestock. If local or district cooperative livestock marketing associations are to be established to serve these producers, it is obvious that they must be so organized as to meet these problems effectively and efficiently. What type of organization would appear to have possibilities of meeting these requirements? The following discussion, which will be devoted to an analysis of this problem, should be regarded merely as a suggestion offered for consideration rather than as a conclusion growing out of this study of the local cooperative livestock shipping associations in Minnesota.

Since price differentials between markets do not remain the same from day to day or week to week, cooperatives must obtain accurate daily prices on each grade from each outlet, if they are to merchandise the producer's livestock effectively. Thus the local cooperative should be in a position to

secure daily price information from the available outlets. Such information might be secured by the local organization from the various outlets or through a district or centralized market information agency, or by a combination of both methods. In any case, costs and effectiveness must be weighed carefully. It is clear that an association of producers or a group of associations can procure more satisfactory price information from available outlets and do so more economically than the average individual producer.

The grade problem involves one of the most difficult phases of all livestock marketing. This difficulty is accentuated by the lack of uniformity in grade standards between the various markets. The extent of the variations in grade classifications differs between species as well as between the different classes within the species. The grading of hogs is generally recognized as being the simplest, while cattle grading is probably the most difficult.

If it can be assumed that much of the hog, calf, and lamb grading might be standardized to the point where it would eliminate the necessity of inspection on the part of the buyer, then the cooperative would be able to sell on order, telephone, or wire bids, as well as locally. This would increase its selling effectiveness by increasing the number of outlets it might use. Grading in this case would have to be uniform from day to day in order to maintain the confidence of the buyers. The lack of dependability in grading has been a factor in the downfall of many associations in the past. Even though changes in market demands may cause two or more grades to be sold at the same price, the grades can and should remain constant. Hence, such

an association must establish definite grading policies, and to make them effective, it must have sufficient volume to merchandise each grade separately.

In the case of those classes of livestock that can not be graded and sold satisfactorily without inspection, it will be necessary to arrange for buyer inspection. This involves bringing the buyers to the livestock, taking the livestock to the buyers, or a compromise which would mean assembling such stock on certain days in quantities sufficient to encourage the attendance of an adequate number of buyers to insure competition. This arrangement would eliminate, to some extent, the necessity of grading into lots. It might be more satisfactory to sell each individual owner's animals separately. Though many classes of calves, hogs, and sheep and lambs may be handled on this basis, the greater part of the business would be confined to cattle.

Communities and areas differ greatly with respect to rail rates and train schedules to various outlets, the type of highways to various outlets, the density of the livestock population, and existing trucking rates and trucker competition. Consequently, no single solution can be offered with respect to the type or method of transportation that would apply to all communities. In some localities, benefits may accrue to members of the cooperative through the use of cooperatively owned trucks. In other communities, they may find it most feasible to lease or hire private trucks. In other cases, they may find it most practical to use private or cooperative local truck service with a combination of rail and truck transportation to market.

In any case, they must recognize several fundamental changes: first, that

improvements in township and county roads have enlarged the area that may be economically and satisfactorily served by a single association; second, that the network of state and county hard-surfaced, all-weather highways have made truck transportation in any direction more economical, dependable, and hence practical; third, that railroads are making definite concessions in the way of "pickups" and other services, and in some communities they offer definite savings over truck transportation to market. After all possible savings have been accounted for, however, it will be found that the local cooperative marketing associations of the future will not be able to maintain membership by relying entirely or even chiefly on providing efficient transportation. The life of the association will depend largely upon how successful it is in meeting other marketing problems.

To render these services adequately, cooperative organizations must have a larger volume of business, more members, and better management and facilities than are found among local shipping associations. That is, merely maintaining the ordinary shipping associations of the past will not be sufficient. Existing organizations will need to be consolidated and strengthened or new organizations formed, if the job is to be done effectively through cooperative effort.

If such organizations are established, they will need to have sufficient flexibility so that they can avail themselves of the methods and outlets which will give the best results in each case. The actual method of sale or transfer of title will depend upon the assembly of price information or bids, the feasibility of transporting each grade to the outlet.

which offers the highest net price, and the grading ability of the manager. The associations may find it necessary to utilize several methods of selling in order to serve effectively and satisfactorily the interest of producers. Such might include sale by private treaty at the local yards, sale on telephone orders, shipping to public markets, and the use of the auction method for certain grades and classes of livestock. In the determination of methods and outlets used, buyers must be assured of equitable treatment, or they will not continue to support the association. Favoritism should not be tolerated. The constant observance of the principal objective, the highest net return to each producer, should eliminate any question on this score.

To perform all of these services of securing price information, grading, transporting, and selling efficiently and economically, the organization should have adequate volume. Instead of an average membership of 190 per association as in 1919, or 171 as in 1936, this type of association will need upwards of 500, preferably 1,000 or more members, depending upon the amount of livestock handled per member. Adequate volume will be necessary to enable the association to employ an efficient and competent manager, sufficient yard help and office force, provide yard facilities and scales, pay for telephone and other communication charges, and yet be able to compete successfully on the basis of costs with livestock-handling agencies now functioning in local communities.

It is possible that additional economies could be brought about through the federation of several local organizations into an association that would procure and disseminate price informa-

tion, seek out new outlets for particular grades of livestock, coordinate the transportation and sale of livestock, and provide a clearing house for information on ways and means of reducing costs and improving the merchandizing service rendered to livestock producers. Such federations should cooperate fully with the public market cooperatives in the exchange of market prices and other information.

If such associations are to continue to be of service to livestock producers, they must be alert to the changes constantly taking place in the marketing of livestock. They must constantly analyze the problem of securing price information, of coordinating transportation, and of grading and selling the producers' livestock. The operations and functions of the local associations should be so definite and clear-cut that the membership may know and understand what the associations can not as well as what they can and should do. Producers should be as aware of the limitations as they are of the advantages or possibilities. They should recognize that the primary objectives are to move the livestock from the farms to processors as efficiently as possible, and to secure the highest possible net return for each class and grade of livestock consigned by each individual producer.

SUMMARY

A sharp decline has taken place in the number of local cooperative livestock shipping associations in Minnesota, as well as in the number of members and in the total volume of business handled. The number of associations declined from 655 in 1919 to 262 in 1936. During this period the number of members declined from an estimated

total of 124,000 to about 45,000, and the volume of business handled by the associations declined from 61 per cent of the livestock marketed by Minnesota farmers to less than 13 per cent.

Before the shipping-association movement began, farmers with less than carload lots commonly sold their livestock to the local dealer, who assembled full carloads for consignment to a convenient public market. Under these conditions many farmers believed that the dealers were exacting undue margins for their services. The local cooperative livestock shipping association enabled the individual farmer to ship his livestock, regardless of number, at full carload rates to the public market where they could be sold separately. This arrangement appealed to producers generally as indicated by the large proportion of Minnesota farmers using the shipping associations when this movement reached its peak. Viewed in retrospect, it appears that the local associations performed much-needed services for producers during this period.

Shortly after the World War, a number of new developments began to affect the activities of the local associations. The mileage of hard-surfaced roads and the number and efficiency of motor trucks for the transportation of livestock increased greatly. In many cases producers were able to ship their small lots of livestock to market by truck, and hence did not need to rely on the local shipping association to supply transportation facilities. Grade standards were improved and market news was made available through the medium of the telephone, the radio, and the press. These developments not only brought the individual farmer in closer touch with his former market, but in many cases made available addi-

tional outlets. As a result, large numbers of producers dropped out of the local associations and marketed their own livestock through other channels.

However, many of these producers who are now marketing their own livestock individually are confronted with marketing problems. These problems include the securing of accurate price quotations from the available outlets, the interpretation of the quoted prices in terms of particular classes and grades of livestock, and the difficulty of transporting small lots to more than one market to take advantage of the differential in quotations on the different grades.

If local associations are to meet the requirements of farmers in many parts of the state, they must be organized as marketing rather than as forwarding associations. To insure adequate volume to justify the expense of a capable manager, office and yard force, adequate equipment, and keeping in touch with the available outlets, the association should have 500 to 1,000 or more members. With sufficient volume, the association manager would be in position to sort and grade the livestock into lots large enough to justify the sale and transportation of each grade to the outlet or buyer whose price is best for that particular kind of livestock.

It is evident that methods of marketing livestock have been affected by many fundamental changes during the past. These changes have had a profound effect on the local cooperative livestock shipping association movement in Minnesota. It can be assumed that the future will bring additional problems that must be critically examined and accurately appraised, for marketing is not static; it is highly dynamic.