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Local Cooperative Livestock Marketing Associations in Iowa Since 1920

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AMES, IOWA

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Summary

Cooperative livestock shipping associations have maintained their importance in the marketing of Iowa livestock since 1920. There were 697 associations in Iowa in 1925. They shipped 67,523 single-deck cars of livestock in 1924, which was 25 percent of all the livestock marketed.

Altho the number of livestock shipped cooperatively has increased since 1920, the proportion handled cooperatively has remained constant. About one-half of the farmers in the state used local shipping associations in 1924 to market at least part of their stock. The volume of business per association varied from 2 to 500 cars of hogs in 1924. Hogs were the most important kind of livestock handled, making up 84 percent of all cooperative shipments. Cattle formed 15 percent and sheep less than 1 percent.

Shipping associations in Iowa are strengthening their business organization and management. Sixty-eight percent doing business in 1925 were incorporated. These averaged 105 cars each, while unincorporated associations averaged 92 cars.

Most local associations carry their own insurance, the charge ranging from 2 to 40 cents a hundredweight and averaging less than commercial insurance, in addition to covering a larger number of risks.

The volume of business increases as managerial control over sales increases. In 1924 the associations in which the manager had no control over sales averaged 71 cars of hogs, while those in which he had complete control averaged 135 cars. Management was one of the most important factors affecting the volume of business.

Changing conditions in the livestock trade are putting the efficiency of the management of shipping associations to severe tests. The associations that have loaded and shipped to one market regardless of their alternative opportunities have had difficulty in continuing operation.

Local packers have greatly expanded their operations and demand for livestock. In 1920 they received nearly 20 percent of Iowa livestock; in 1927, 35 percent. But in 1924 only one-eighth of all cooperative shipments went to local packers, while one-third of non-cooperative shipments went to local packers.

Twice as large a percentage of cooperative livestock shipments went to Chicago as of non-cooperative shipments. Shipping associations must seek out the best markets and methods of disposal.

Another factor affecting shipping associations is the truck. Some associations have employed it to advantage, while others have allowed themselves to be put out of business by it. The truck has become an important means of transporting livestock to market. In 1927 nearly 20 percent of Iowa hogs were trucked to market.

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BY D. A. FITZGERALD¹

This bulletin is a follow-up study of local farmers cooperative shipping associations in Iowa. In 1920 a study was made of the local shipping associations and many of them were visited by representatives of the Agricultural Economics Section. To others, written questionnaires were mailed and replies were received from a large number of these. Information regarding others was compiled from reports made by county agents and other local officials. From this rather heterogeneous mass of data a bulletin giving a cross-section of the cooperative shipping movement was prepared and published².

In the fall of 1925 and the spring of 1926, the Agricultural Economics Section made a re-survey of the field and personal visits were made to a majority of the local associations. The following pages contain the results of this survey, including comparisons, where possible, with the previous survey.

The purpose of the survey was three-fold: First, to obtain a sectional view of the shipping association movement; second, to obtain a record of the growth since the previous survey in 1920; and, third, to obtain specific information regarding the problems with which the local associations have had to contend. Then, too, a broad survey of the field indicates to some degree the trends in the development of cooperative livestock marketing agencies.

SECTION I—DEVELOPMENT AND PRESENT METHODS OF OPERATION.

Types of Associations:

There are 697 local farmers' livestock shipping associations in Iowa. They fall into six more or less distinct types. A short description of them follows, which it is hoped will be helpful in studying some of the problems presented in the succeeding sections.

¹The writer is indebted to Prof. P. L. Miller, assistant chief of the Agricultural Economics Section, under whose direction this manuscript was prepared, for his many helpful suggestions and criticisms. The writer also acknowledges the assistance received from Dr. C. L. Holmes, chief of the Agricultural Economics Section; Prof. S. H. Thompson of the Agricultural Extension Service, and Prof. G. S. Shepherd of the Agricultural Economics Section.

²Nourse, E. G., and Hammans, C. W. Cooperative Livestock Shipping in Iowa in 1920. Bul. Iowa Agr. Exp. Sta. 200. 1921.

The most common type of farmers' organization handling livestock in Iowa is the local shipping association, which confines its activities wholly to shipping livestock cooperatively and which, for lack of a better name, we have called the "independent local shipping association." This group includes 458 out of the total 697 farmers' organizations handling livestock.

A second type is distinguished from the above only by the increase in the scope of its activities. This is the independent local, which, in addition to the main business of shipping livestock, also handles from one to several sidelines, such as coal, feed, hay and the like. The importance of the sidelines vary; some associations do a large enough business in them to keep a manager busy all the time, while others handle sidelines only at times, when the demand is large enough to ship in a carload and distribute it immediately. In this group may be included 47 associations. While the individual associations in both these groups vary widely in methods of handling stock and prorating expenses, it is typical of all of them that the stock is shipped cooperatively for the patrons, who in turn are assessed for the shipping expenses.

The third type of farmers' organization included in the 697 handling livestock, is the one which, in addition to its other business, handles livestock. First among these is the farmers' elevator. Of the total of 104 organizations in the group 80 are farmers' elevators. The remainder includes chiefly farmers' stores and produce houses.

The fourth group, 42 in number, includes all associations in which the manager buys to a greater or lesser extent. In this report, we have arbitrarily considered all those associations in which 10 percent or more of the stock is bought outright by the manager as falling into this group and all those associations in which the manager buys less than 10 percent as belonging in the first type.

A fifth group, 51 in number, includes all associations in which the company buys 10 percent or more of the stock. Our reasoning in arbitrarily picking 10 percent as the dividing point between the fourth and fifth groups and those preceding was that in most cases when the manager or the company bought less than 10 percent it was simply for the purpose of giving better service to the patrons. In many cases it was done to fill loads, or to accommodate those in need of ready money or for some other purpose that improved the service to several or all of the patrons.

A sixth group, five in number, consists of those shipping associations which have simply evolved from several neighbors shipping together. Gradually one man takes over the responsibility of getting the loads. Neighbors become accustomed to listing

stock with him when it is ready to ship and finally he gets into the habit of charging them for his time. The association has never been organized, has no directors or officials of any kind, but simply consists of the shipper, who lists and ships the stock for which he receives a "commission."

Unless otherwise stated, the phrase "shipping association" will include all the above types of farmers' organizations. The following discussion will include, therefore, only those associations in which the majority of the members are farmers and in which the patrons have the *alternative* of shipping should they care to do so.

Number and Growth Since 1920:

During the year 1925, 697 farmers' organizations shipped at least some stock to market, tho a considerable number handled an almost negligible amount. Business practice ranged from one extreme, in which the organization bought practically all the stock, to the other, in which all the stock was shipped.

The 1920 survey² listed 647 associations in operation in that year, but our later survey showed that at least 35 associations had been overlooked in the earlier survey. This brings the number in operation in 1920 up to 682. Our previous bulletin (No. 200) showed the annual growth in the number of associations from the time of their inception in 1904 up to and including 1920. Growth was slow at first and not until 1917 were more than a dozen organized in any one year. Growth was accelerated in 1917 and 1918 and by 1920 had reached its crest. In that year 300 associations were organized. Since 1920 the number of associations organized yearly has steadily decreased. (Table I.)

The principal reason for the decline in the number of associations organized yearly seems to be due largely to the decreasing number of points available for the organizing of a livestock shipping association. Several counties had an association at every shipping point, and many other counties were almost as completely organized. Naturally, we would expect fewer associations to be organized as time passes.

TABLE I. ASSOCIATIONS ORGANIZED YEARLY SINCE 1920

Year	No. Assns.
1921	81
1922	69
1923	23
1924	11
1925	10
Total 193	

The 193 associations organized since 1920 do not represent a net increase in the number of active associations, for during this same period 178 associations went out of business, leaving a net gain of 15 in the number of associations in operation in 1925 as compared to 1920.

²Nourse, E. G., and Hammans, C. W. Cooperative Livestock Shipping in Iowa in 1920. Bul. Iowa Agr. Exp. Sta. 200. 1921.

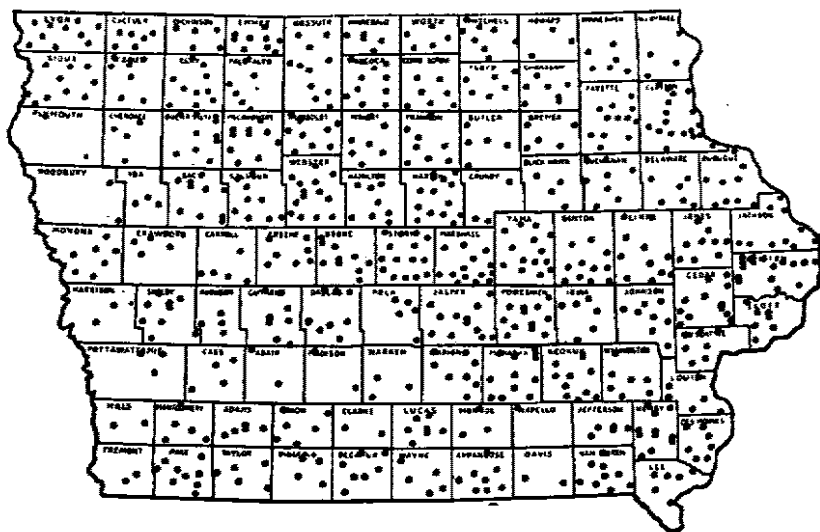


Fig 1. Livestock Shipping Associations in 1925.

Distribution:

The 697 associations operating in 1925 were distributed somewhat unevenly over the state. No county was without at least one association, but the range was all the way from one in Wapello and Plymouth counties to 19 in Clayton. Following Clayton were Webster County with 18, Clinton with 16 and Story

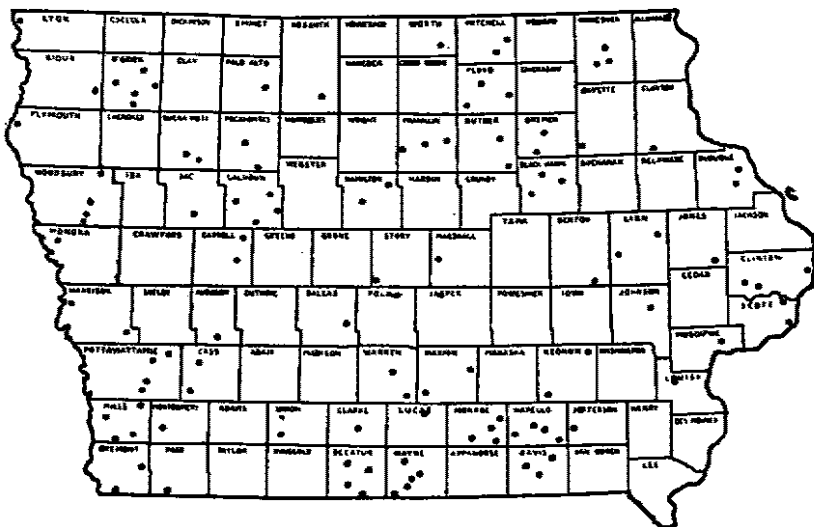


Fig. 2. Livestock Shipping Associations Going Out of Business, 1921-1925.

with 15. Figure 1 shows the distribution of 697 farmers' organizations that handled livestock in 1925. With some exceptions the areas of greatest concentration in the number of associations were, (1) a broad band running from the northwest to the southeast section of the state, (2) a small section in the northeast centering around Clayton and Fayette Counties, and (3) certain counties in the south, Appanoose and Page, especially.

Figure 2 shows the distribution of 124 of the associations going out of business during the period 1921-1925. Most of these cessations were due to the death of the organization, but in a few cases it simply meant the cessation of a department or sideline of some other farmers' business such as an elevator. Figure 3 shows the distribution of those associations organized since

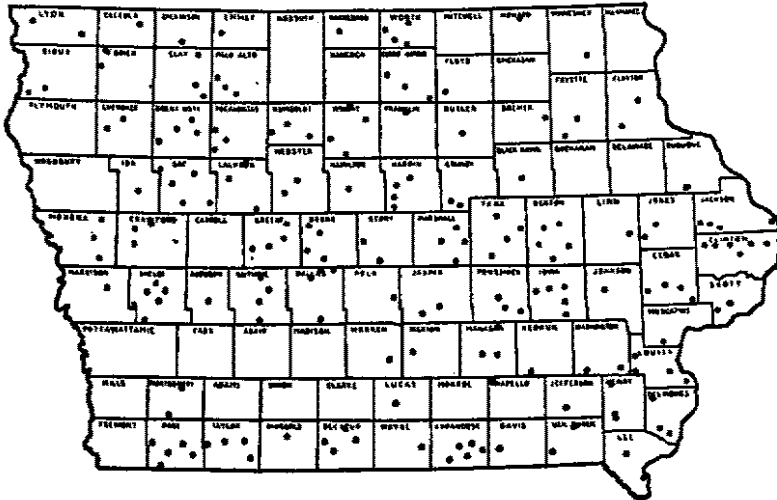


Fig. 3. Livestock Shipping Associations Organized, 1921-1926.

1920. It will be observed that they are most numerous in the area No. 1 and in the southern tier of counties.

Volume of Business:

Detailed data were gathered from 617 associations concerning their size of business in terms of the number of carloads of stock handled. In addition, more general data on volume of business were gathered from a large number of the 80 remaining farmers' organizations.

In 1924, Iowa farmers shipped cooperatively 24 percent of all their livestock, which consisted of 31 percent of their hogs, 12 percent of their cattle and 9 percent of their sheep.

The 697 shipping associations operating in 1925 handled 67,523 single deck cars of livestock in 1924. This total was composed of 56,679 carloads of hogs, 10,220 carloads of cattle and 624 cars of sheep. In the same year Iowa's total marketings of livestock consisted of 13,869,792 head of hogs, 2,149,451 head of cattle and 855,132 head of sheep⁴. In terms of single deck cars this is equal to approximately 184,850 cars of hogs, 87,060 cars of cattle and 7,200 cars of sheep.

Data collected in the 1920 survey were not detailed enough to permit estimating the percentage of each kind of livestock shipped, but the percentage of all livestock handled cooperatively in 1920 was estimated as being 27½ percent. At the time no accurate figures on total livestock shipments from Iowa were available. The estimate made of this was nearly 10 percent too low, being set at 181,000⁵ instead of almost 200,000 cars. On this latter basis, approximately 25 percent of the livestock was shipped cooperatively in 1920 and it is significant that the proportion of livestock handled cooperatively in 1924 was no more, perhaps slightly less, than the percentage handled in this manner four years earlier. (Fig. 4.)

During this same four-year period the average volume of business per association increased from 77 to 96 cars a year, an increase of 27 percent, but this growth in volume seems to be entirely due to the increase in livestock marketing from the state as a whole, rather than to a greater popularity of cooperative selling, resulting from economies effected by the association over other methods of disposal. (Table II.) Between 1920 and 1924, total hog marketings for the state increased 60 percent and cattle marketing increased 27 percent, while the comparatively unimportant sheep marketings decreased 12 percent. The total volume of cooperative livestock shipping grew from 49,754 cars in 1920 to 67,523 cars in 1924, an increase of 35.7 percent, but total livestock marketings from the state grew from 200,000 to 280,000 cars during the same period, an increase of 40 percent.

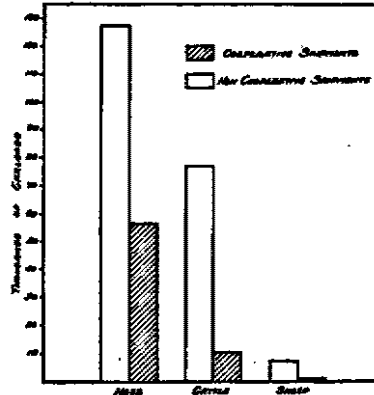


Fig. 4. Iowa Cooperative Livestock Shipments, 1924.

⁴Iowa Monthly Crop Report, January 1, 1925.

⁵Nourse, E. G., and Hammans, C. W., Cooperative Livestock Shipping in Iowa in 1920. Bul. Iowa Agr. Exp. Sta. 200. 1921.

TABLE II. LIVESTOCK SHIPMENTS FROM IOWA, 1920-1925*.

Year	Hogs		Cattle		Sheep	
	Number of head	Pct. Inc. over 1920	No. of head	Pct. Inc. over 1920	No. of head	Pct. Inc. over 1920
1920	8,632,208		1,685,882		975,205	
1921	8,983,719	+ 4	1,796,554	+ 6	1,014,407	+ 4
1922	9,698,694	+12	1,837,650	+ 9	699,652	-28
1923	13,316,347	+54	2,042,110	+21	699,475	-28
1924	13,869,792	+60	2,149,451	+27	855,132	-12
1925	10,972,785	+27	2,026,889	+20	743,618	-24

*Iowa Monthly Crop Reports, January 1, 1925 and 1926.

Does this apparent regression in cooperative livestock marketing mean that the whole system was inadequately conceived and improperly organized? An analysis of the facts does not bear this out. The 1920 survey was taken at the height of a 'boom' period in the shipping association movement and, as is natural at such periods, the organization of some units was not economically justified. During the four years between the 1920 and the 1924 surveys, a number of these associations fell by the wayside, and since 1924 others have followed suit. On the other hand, during this same period other associations have proved their worth and have become a permanent development in livestock marketing. The period as a whole has been one of consolidation and adjustment of those units that have filled a need in the community and a ruthless lopping off of those which the community did not support and of those which were unable to render an economic service because of maladministration and mismanagement.

Table III and fig. 5 show the progress in terms of volume of business. The large volume associations have gained more than a proportionate share of the business since 1920. In the earlier year, 12 percent of the cooperative livestock shipments were handled by associations having a volume of over 200 cars; in 1924, 27 percent of these shipments were handled by such associations. The small volume associations, on the other hand, are continuing to die out. In 1920, 47 percent of the cooperative livestock shipments were handled by associations with a volume of less than 100 cars. In 1924, only 32 percent were similarly handled.

TABLE III. AVERAGE VOLUME OF BUSINESS OF IOWA COOPERATIVE LIVESTOCK SHIPPING ASSOCIATIONS, 342 IN 1920, 613 IN 1924.

Annual Shipments	Cars		Number of Associations		Pct. of all Associations		Pct. of all cars shipped	
	1920	1924	1920	1924	1920	1924	1920	1924
Below 50 cars	8,727	4,634	120	143	35	23	14	7
50-99 cars	8,771	16,881	127	221	37	36	33	25
100-199 cars	10,775	25,828	84	188	24	31	41	41
200-299 cars	2,143	11,935	9	48	3	8	8	19
300 and over	925	5,394	2	14	1	2	4	8
Total	26,341	63,092	342	613	100	100	100	100

Data for 1920 are available on 37 of the 62 associations shipping 200 cars or more of livestock in 1924, and on 66 of the 178 that ceased operations between 1920 and 1924. These 37 associations had an average volume of 133 cars in 1920 compared to 265 cars in 1924, while the 66 associations had an average volume of 55 cars in 1920 and no volume at all in 1924. The average for all associations in 1920 was 77 cars⁶. Thus, in general, the large volume associations of 1920 increased their shipments more than the average association, while the small association shipments ceased entirely.

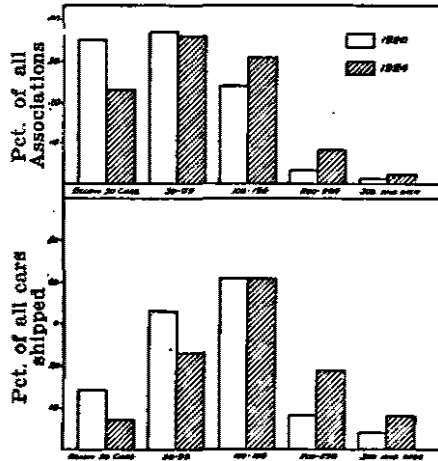


Fig. 5. Volume of Business of Co-operative Livestock Shipping Associations in 1920 and 1924.

Another important influence on volume is the length of time the association has been in operation. As a general rule, the longer an association has been in operation, the larger the volume of business. Individual associations may be far removed from the average due to the influences of other conditions, but the comparatively large number of cases in each group in table IV would indicate that a considerable relationship does exist.

Kinds of Livestock Handled:

The 1924 figures are detailed enough to give the distribution of shipments by kinds of livestock. Hogs constitute by far the most important source of cooperative livestock shipments. They make up over 84 percent of all cooperative livestock shipments; cattle form 15 percent, and sheep less than 1 percent. Not only does this hold true in general, but shipments from individual

TABLE IV. AVERAGE VOLUMES OF BUSINESS IN CARLOADS OF 594 ASSOCIATIONS ORGANIZED BETWEEN 1904 AND 1924.

Year Organized	No. of Associations	Av. Vol. of Business, 1924	Av. No. of cars shipped from station	Pct. shipped Cooperatively
1904-1918	149	120	266	45
1919	121	104	258	40
1920	154	102	256	39
1921-1924	170	93	243	38
Total	594	104	255	41

⁶Nourse, E. G., and Hammans, C. W., Cooperative Livestock Shipping in Iowa in 1920. Bul. Iowa Agr. Exp. Sta. 200. 1921.

associations are in the same proportion. In only two instances does the volume of cattle shipments exceed that of hogs, and yet at many stations a larger total number of carloads of cattle than of hogs are loaded out.

It is apparent that, even under the most favorable conditions, cooperative cattle shipments will never equal those of hogs, at least while the present ratio of production remains approximately the same, for two-thirds of *all* shipments from the state are hog shipments. Only 31 percent are cattle shipments and the remaining 3 percent are sheep shipments. This gives a ratio of all hogs to all cattle shipments of about 2:1, while the ratio of cooperative hog to cattle shipments is about $5\frac{1}{2}$:1. Among the many factors that help to widen the ratio from 2:1 to $5\frac{1}{2}$:1 is the practice that many associations that buy stock outright have of dealing wholly or almost wholly in hogs. Thus the 16 associations that buy over 50 percent of their stock handled 2,745 cars of hogs and only 213 cars of cattle—a ratio of 13:1.

Farmers' organizations buying a large proportion of their stock deal almost exclusively in hogs for two reasons. First, they believe that there is less risk in buying hogs than cattle. They can run on a smaller margin, paying the farmer more nearly what his livestock would bring on the market, when dealing in hogs than in cattle. Quality is more uniform in hogs than in cattle, and the manager of an association feels better qualified to pass upon the merits of the individual hogs than he would be with cattle. In the second place, these associations are largely located in cattle-feeding areas where the individual farmers have a large enough volume of cattle to ship them in full carloads themselves.

Another factor causing a smaller proportion of cattle than hogs to be shipped cooperatively is the larger percentage of cattle that goes out in "single owner" cars—that is, all the stock in the car owned by the same person and shipped by him in his own name. This practice may not be so prevalent in the future since some of the full load shippers have found the better local shipping associations efficient marketing mechanisms, but the practice has been very common in the past. Fifty-three percent⁷ of the cattle shipped out of stations having shipping associations is shipped out in full cars by the owners, whereas only 26 percent of the hogs are shipped out in this manner. This is especially noticeable in the cattle feeding areas of the state. For instance, in the Western Cattle Feeding Area, consisting of

⁷In the survey the estimated proportion of stock shipped out in full cars and by buyers was obtained. These percentages were applied to exact loading point shipments obtained from the railroads. The resulting figures in carloads were added together and the total stated as a percentage of all livestock shipments from the state.

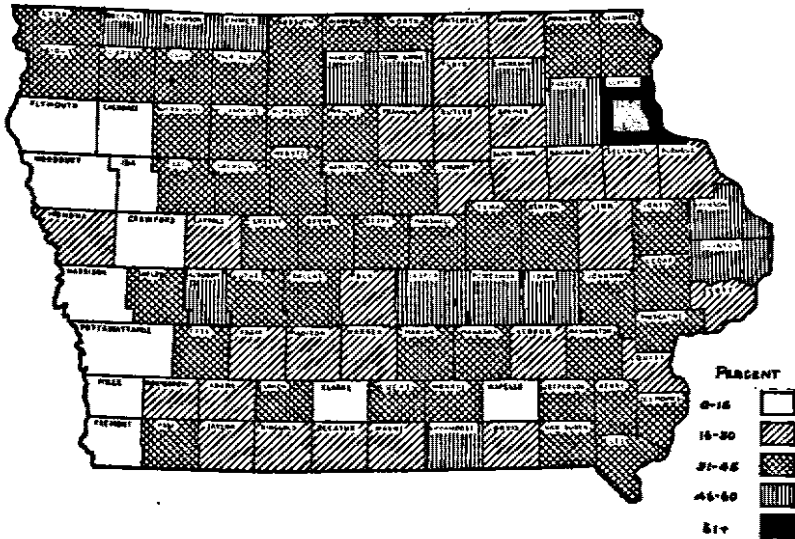


Fig. 7. Percent of Hogs Shipped Cooperatively in 1924.

ations have the smallest average volume of business, but this is not always the case.

The volume of business depends on local conditions. In trade territories of equal size one association may handle twice the livestock that the other does because it provides an economical service for a larger proportion of the farmers in the neighborhood. The small farmer who has only a few hogs ready to market at any one time, has usually derived the most value from the local cooperative. Thru it he has been able to market small numbers of hogs as they become ready and has not had to depend wholly upon the services of the local buyer. Big shippers have not uniformly derived as much benefit because often they were better able to market their hogs themselves. Instances are by no means lacking, however, where a well managed association has substantially benefited even the largest producers.

Organization:

Sixty-eight percent of the shipping associations doing business in 1925 were incorporated. A little over half of these were incorporated under the 1921 non-stock non-profit cooperative law of Iowa and the other half under the 1915 Cooperative Law or the General Corporation Law.

Incorporation gives to the organization a legal status, limits the liability of the members and puts the association in a more advantageous position for transacting business, suing for rail-

TABLE V. YEAR OF ORGANIZATION OF 226 ASSOCIATIONS INCORPORATED UNDER THE 1921 NON-STOCK NON-PROFIT COOPERATIVE LAWS OF IOWA

Year of Organization	Number	Year of Organization	Number
1910	1	1920	62
1915	2	1921	39
1917	4	1922	46
1918	19	1923	9
1919	46	1924	4

road claims and transferring property. The costs of the incorporation are small (\$5.00 for the charter from the Secretary of State and a \$2.00 fee for filing), and the advantages more than outweigh this trifling expense^a.

In 1920 only 34 percent of the associations reporting were incorporated and the increase in incorporated associations since is significant. The 202 unincorporated associations visited in 1925 had handled an average of 92 cars of stock the previous year, while the 422 incorporated associations had handled, on the average, 105 cars each. The incorporated associations were handling a larger volume of business not simply because they had incorporated, but because the better associations usually are incorporated.

Many associations not previously incorporated took advantage of the 1921 Non-stock Cooperative Laws. (Table V.) At the same time the associations incorporating under the 1915 law greatly decreased. The 1921 law seems best fitted to the needs of the livestock shipping associations, tho very few associations have changed to the 1921 law after having incorporated under the 1915 cooperative or general corporation laws.

Affiliation:

Over one-half of the associations visited in 1925 considered themselves in no way affiliated with any state organization, and as being organized under the auspices of no other farmers' organization. (Table VI.) A few indicated that they had been organized under the auspices of the local farmers elevator. In the majority of these cases the initiative usually came from local livestock raisers and the elevators appeared to be the most

TABLE VI. AUSPICES UNDER WHICH 576 ASSOCIATIONS ORGANIZED.

Auspices	Number	Majority of members belong to:			
		F. B.	F. U.	Both	None
Local	320	197	17	46	60
Farm Bureau	148	142	1	3	2
Farmers' Union	78	...	69	5	4
Equity	29	8	7	4	10

^aFor a comparison of these laws see Iowa Agr. Exp. Sta. Circ. 95, Cooperating under the Iowa Cooperative Laws.

satisfactory place to hold organization meetings. Since the elevator was usually well established, often the livestock shipping association was added as a sideline.

Many associations have been organized thru the activities of county agents, and in many cases since 1920 the State Livestock Shippers' Association has been called upon to furnish technical advice and assistance in the organization of local associations.

The State Livestock Shippers' Association:

The State Livestock Shippers' Association, since its foundation in 1920, has shown a steady growth and a gradual increase in the number of services that it performs for the shipper. In 1925, 144 associations indicated that they were members of the State Livestock Shippers' Association, more than double the membership in 1920^o, the year it was organized. This association, thru its secretary, has been influential in getting the minimum weight on carloads of hogs reduced to 16,500 pounds, thus saving shippers thruout the state thousands of dollars in freight charges annually. The State Association has been an all-important factor in improving local conditions for many associations, especially in dealing with the railroads regarding small and dirty yards, lack of water and inadequate loading facilities. Another service of the State Association which is becoming increasingly important, is the supplying of information to the local shipping associations regarding market outlets.

The State Livestock Shipping Association has been actively interested in many other activities of a more general nature. For some years past it has been sponsoring an educational campaign to acquaint the members with the objects and methods of cooperation, especially in regard to livestock marketing, and has invited the cooperation of other educational agencies in this undertaking. Much of the efforts of the association have been devoted to developing better business methods and to an analysis of the problems of individual member associations. The association, on several occasions, has ably represented the shippers' interests at the freight rate hearings of the Interstate Commerce Commission. This service is one of the many performed by this state organization for all the farmers in the state, regardless of whether or not they are members of the local units that support it.

Recently the state association has been developing an auditing service for its member associations, which is expected to be of mutual advantage to the member and to the state association, enabling both to make a more comprehensive study of the

^oNourse, E. G., and Hammans, C. W., *Cooperative Livestock Shipping in Iowa in 1920*. Bul. Iowa Agr. Exp. Sta. 200. 1921.

local and state-wide problems confronting them. The state association, too, has been active in assisting the locals to put themselves "under contract."

The Contract:

A "contract" association, or an association "under contract," is one in which there is an agreement between the members and the association in which the members promise to deliver all livestock to the local association with exceptions for sales of breeding animals and sales to neighboring farmers and local butchers. Failure on the part of the member to abide by the agreement shall make him liable for liquidated damages, usually 25 cents a hundredweight. The contract may be terminated by either party during a definitely specified period of the year.

At the time of the last survey, 49 associations were using the membership agreement, but 17 of these were not enforcing it. Eight others had used this agreement, but had found it not adapted to their stage of development or special conditions and had dropped it. The widest range of opinion was noted with regard to usefulness of the contract. Some managers claimed that it ruined their association, while others said that they could not get along without it. Generally, it appeared to work most satisfactorily where the association was already well established and the business flourishing, altho not a few associations have used it with marked success from the outset. The contract seemed to add a concrete touch and a feeling of solidarity to the organization. The main advantages of the contract seem to be that (1) it enables the board of directors and the manager to adjust their business more accurately, (2) it defines in a systematic and effective way the member's relation to his association, (3) it facilitates economies thru avoidance of loads below minimum weight, and (4) it may be used as an impelling argument where an association is seeking satisfactory market connections. It assures the manager's salary and is of use in this connection by the board if necessary to obtain a new manager. The assured volume tends also to attract better managers.

Patronage:

Farmers using the facilities of the shipping association to dispose of at least some part of their stock numbered approximately 104,000 in 1924. As the total number of farmers in Iowa, according to the 1925 State Census, was 209,000, this would indicate that about one-half of the farmers in the state used their local shipping associations in 1925. Some duplication of figures occurs here, for some farmers ship thru two or even three associations, but the error is not enough to be significant. The aver-

age number of members per association was about 150. The number of patrons of individual shipping associations ranges all the way from 6 to 1,000. In many associations shippers automatically become members upon shipping for the first time, membership fees being deducted from the market returns before the farmer is paid. In other cases the division is more distinct. This is especially true in stock companies, shippers holding shares being considered members, others are patrons. In some Farmers Union associations, membership in the local Union automatically makes one a member of the shipping association. In other associations there is no membership fee and any person shipping is considered a member, with a right to attend meetings and vote.

Under these circumstances, members' "fees" vary from nothing to \$25.00, the latter being usually the cost of a share of stock in the company. Many of the \$3.50 and \$5.00 fees are really fees for the local farmers' organization to which the farmer must belong in order to use the facilities of the shipping association.

One dollar is the usual membership fee, altho the associations having no fee at all are almost as numerous. (Table VII.) In this latter group are included 83 associations that issued a limited number of shares upon incorporation and which now ship for stockholders and non-stockholders indiscriminately. These 83 associations carry on other business besides that of shipping livestock and often the livestock is merely a sideline of their regular operations.

The number of patrons per carload varies greatly. Often one person will ship a full car thru the association and, at the other extreme, loads may be made up from the stock of 20 owners. From the results of the recent survey, it appears that on the

TABLE VII. MEMBERSHIP FEES OF 612 IOWA COOPERATIVE LIVESTOCK SHIPPING ASSOCIATIONS IN 1925.

Membership Fee	Number of Associations
\$ None	202
.50	3
1.00	287
1.50	5
2.00	33
2.50	3
3.00	13
5.00	15
10.00	22
Yearly	
.50	7
3.00	1
2.50	2
3.50	20
Total	612

average each patron contributed two-thirds of a car of stock to the shipping association in the course of the year. Normally, however, this is done in several "installments" rather than at one time.

The number of patrons is directly related to the volume of business. For the state as a whole a large volume of livestock shipments is associated with a large number of shippers. (Table VIII.)

It is apparent, however, that the volume of shipments does

TABLE VIII. AVERAGE VOLUME OF HOG AND CATTLE SHIPMENTS BY NUMBER OF PATRONS, 1924

Number of Patrons	Ave. carloads of hogs per association	Ave. carloads of cattle per association	Number of associations	Ave. No. of patrons per association
5- 50	33	5	61	37
51-100	57	11	171	85
101-150	80	15	128	132
151-200	97	22	108	190
201-300	134	25	75	262
301-500	189	33	32	401
501-1000	220	36	7	717

TABLE IX. AVERAGE VOLUME OF HOG AND CATTLE SHIPMENTS PER PATRON, 1924

Number of Patrons	Av. carloads of hogs per patron	Av. carloads of cattle per patron	Number of associations	Av. No. of patrons per association
5- 50	.95	.13	61	37
51- 100	.67	.13	171	85
101- 150	.61	.11	128	132
151- 200	.51	.12	108	190
201- 300	.51	.09	75	262
301- 500	.47	.10	32	401
501-1000	.31	.05	7	717

not increase in direct proportion to the number of patrons so that as the number of patrons increases, the stock, especially hogs, supplied by each patron decreases. (Table IX.)

Thus when the average number of patrons per association was 37, each member supplied on the average nearly one car (.95) of hogs. When the average number of patrons was 717, each

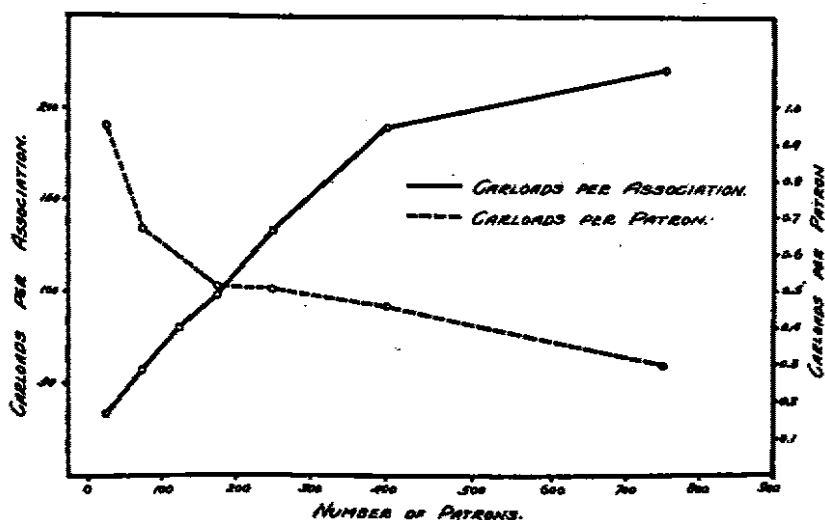


Fig. 8. Number of Patrons, Volume of Business per Association, and Volume of Business per Patron.

member supplied less than one-third (.32) of a car of hogs. (Fig. 8).

Operating Organization:

The capital requirements of the average cooperative shipping association are small. Association property necessary to carry on the business is negligible. The railroads generally supply yards and loading facilities and usually scales. This constitutes all that many associations find necessary. Three hundred sixty-three associations out of six hundred twenty-three for which these data were obtained, or 58 percent, owned no property at all, using only the facilities provided by the railroads.

To this number might be added 142 associations which own no property, but use that of other concerns. This is particularly the case when the shipping association is operated in connection with a farmers' elevator or store as an office and theoretically the livestock shipping association should pay for this privilege. In this respect these 142 associations can be said to have at least a claim in some property.

The remaining 118 of the 623 associations actually own outright certain property. In 38 cases this property consists of scales; in about half a dozen cases, of yards and loading facilities; and in the remainder, of offices and corn cribs. In a very few cases the shipping association also owns office equipment of value, such as adding machines.

Out of 587 associations, 459 owned a more or less complete set of books, in which the records of the association were kept, but these could hardly be considered as property.

Since the property owned by most of the associations is small, the capital requirements of these shipping associations have also been small. While this is advantageous in that it facilitates the forming of an association, it also has its disadvantages in that it may enable an association to be formed without adequate consideration. Prospective members are much more apt to pledge their moral support than their financial support and then forget all about it when convenient to do so. A check of 623 complete records shows that the average volume of business in 1924 of those associations owning no property was 93 cars, while for those associations owning property it was 121 cars.

The reasons for property ownership by associations were varied. In a few cases the railroad had not supplied scales at the shipping point and these had to be purchased. In other cases, more accurate and efficient scales were purchased in order to take care of a large volume of business. In the case of yard ownership, those supplied by the railroad were unsatisfactory and private yards were built to facilitate cooperative shipping. A large part of the property consisted of an office at the yards

at which all business is conducted. These offices assisted greatly by providing a place of business for the manager and by enabling the members to keep in close touch with the business and its management.

Many associations need an office and considerable equipment to provide efficient service for their patrons. Where these have been provided they have often contributed materially to the success of the association. Livestock sales contribute over 60 percent of the average Iowa farmer's gross income and a business of this size certainly justifies a small investment in plant and equipment in order to facilitate its disposal.

Another use to which a limited amount of capital may be put is in the formation of the Insurance Fund or Reserve. The majority of cooperative shipping associations provide for the insurance of the shipper's stock by making a small deduction from the market receipts from which a fund is accumulated for the payment of losses as they occur. It takes, however, several shipments of stock to accumulate a fund even of moderate size and if the association is unfortunate enough to have somewhat severe losses in the first few loads, it may result in an embarrassing situation, from which the only relief is to borrow from the bank or assess the members. Both these practices are looked upon with disfavor, especially by the members of a new association, for it is not a good advertisement and new members would tend to steer clear of an association already in debt. The use of the membership fees or capital collected for the purpose of forming an insurance fund of sizable proportions will obviate any difficulties that may arise on this score.

As a conservative policy regarding the insurance fund, the balance when the association begins business should not be less than \$400. This will vary with the size of the association and the volume of business, larger associations requiring somewhat larger sinking fund reserves. The average size of the insurance fund in 458 associations in the 1925 survey was nearly \$500, and the average amount of losses paid by 334 of them from the insurance fund was \$229. The average loss per car was approximately \$2.25. It is the exceptional losses, however, that might embarrass the association and for this reason a comparatively high balance in the insurance fund is advisable.

In order to obtain this necessary balance the membership fees levied at the time of organization should be adjusted so as to leave this approximate balance after the incidental expenses of organization have been met. These expenses include incorporation fees and outlays for an accounting system, stamps and stationery. Individual membership fees will then be determined by the number of members. For the average association of 120

members, an initial payment of \$3.00 to \$4.00 should be ample.

As additions are made to the insurance fund thru the operation of the insurance charges, a conservative policy would be to build up this reserve until it is able to pay for a full car of stock in case of need. Interest receipts on a portion of the reserve would help to reduce current charges.

The need for building up an insurance fund by charging a membership fee larger than the average association does upon organization (table VII), is contingent upon the association carrying its own insurance. If no insurance is carried or if insurance is carried in commercial companies the reason for charging a \$3.00 or \$4.00 membership fee is removed. In 1920 about 15 percent of the associations were carrying commercial insurance, but in 1925 the proportion carrying commercial insurance had decreased to 5 percent, 35 out of 619 carrying it for hogs and 36 carrying it for cattle. Commercial insurance on livestock seems to have been dropped for two reasons. In the first place, it is somewhat higher than the average rate charged by the associations when carrying their own insurance, and in the second place, commercial insurance covers merely transit losses, while association insurance normally covers all losses from the time the stock is delivered at the local shipping point until sale at the terminal market. Commercial insurance rates on hogs range from 7 cents a head for distances under 150 miles to 20 cents a head for distances from 1,100 to 1,450 miles. The most common shipping association insurance rates on hogs and cattle are 2 to 4 cents a hundredweight. On 250-pound hogs this is equivalent to 7½ cents a head and on 1,000 pound steers, 30 cents. These charges cover many other expenses besides losses for which a supplementary charge would have to be made if commercial insurance were carried.

Cooperative Insurance Rates:

HOGS

Cooperative insurance rates are widely divergent not only in size but in method of application and in the proportion of the home expenses paid from the funds thus collected. (Table X.)

Table X by no means exhausts the various rates used and methods of collecting insurance. The most important of the remaining methods consists of making a lump charge covering both manager's "commission" and insurance. Of the 49 associations making this lump charge, 34 paid the manager of the shipping association a straight salary. In the majority of these cases the manager was usually in charge of a farmers' elevator or other business and the charges collected for handling livestock went directly into the funds of the elevator, the manager getting

TABLE X. INSURANCE RATES ON HOGS, 1925.

Basis of Application*							
Cents per Cwt.		Cents per Head		Percent of Net Market Returns		Percent of Gross Market Returns	
Rate	No.** Assns.	Rate	No. Assns.	Rate	No. Assns.	Rate	No. Assns.
½	2						
1	23	2	1	.10	3		
1½	7					.10	2
2	90	5	3				
2½	7	6	3	.20	1		
3	104	8	1	.25	20	.20	2
3½	1	9	2			.25	4
4	70			.30	7		
4½	2			.35	3		
5	53			.40	5		
6	6	15	1	.50	58		
7	6			.60	3	.50	5
8				.75	3		
9				.80	4		
10				1.00	2		
12				1.25	2		
15				2.00	1		
25						3.00	2
40							
Total	371		11		112		15

*Following any line across the page will give a rough comparison of the several methods of insurance. Thus, the rates of 3c a hundredweight, 8c a head, 0.25 percent of market net and 0.20 of market gross are approximately equal. In obtaining this relation the average weight per hog was considered as 250 pounds and the value \$11 per hundredweight. Changes in value will, of course, greatly alter this relation. Thus, if hogs were worth \$7 a hundredweight, 0.50 percent of market net would equal 3½c.

**Includes 12 associations in which total charge of from 5 to 10 cents a hundredweight is made and manager's commission of \$5 to \$10 a car is deducted therefrom. The positions of these were found by estimating the manager's commission in cents per hundredweight and deducting it from the rate as reported.

his whole salary directly from the latter. The combined charge in these associations varied from 4 to 10 cents per hundredweight and from ¾ of a percent to 2 percent of market net.

One association charged insurance at the rate of \$4 a car and another used the refunds from the cooperative commission house at the terminal market for this purpose. Twenty-seven associations carried no insurance at all, the owners standing all the risk. In nine of these all the stock was bought, the "Owners" being the company. However, it is probable that in these cases any losses were at least partly shifted to the farmer, for the company would tend to increase the margin between prices they paid and prices they received by enough to take care of any losses.

In the majority of the associations no attempt was made to keep the losses separate from the other expenses. In 21 associations out of 449, less than 5 percent, losses only were paid out of the insurance fund. Contingent levies or annual membership fees were used to pay for other miscellaneous expenses.

The average rate of insurance in these 21 organizations was nearly 3 cents a hundredweight. A large majority of the associations, 77 percent, paid all miscellaneous expenses out of the insurance fund. These expenses included, most commonly, stationery, lights in the office or yards, stamps, other items of office equipment and accounting systems. Less commonly, items such as excessive shrink, office rent, feed for hogs held over, extra help and secretaries' salaries were included. The average insurance rate on hogs for this group was a little over 3½ cents a hundredweight. A third group, consisting of 77 associations, about 18 percent, paid for feed and bedding for hogs as well as the miscellaneous expenses out of the insurance fund and the average rate of insurance in this group was approximately 4½ cents per hundredweight.

The insurance fund charge on hogs increased as the items paid from the fund increased. However, while this holds true for average figures, individual association rates may, and do, vary greatly within each of the above groups. The range in rates in the group in which feed and bedding expenses are paid from the sinking fund is from 1 cent a hundredweight to 3 percent of market net returns—nearly 30 cents a hundredweight. A second factor influencing the rate of insurance charge is the policy of the association with regard to the balance in the insurance fund. Most associations try to adjust their insurance rates to balance as nearly as possible their losses (and expenses). A few others charge a rate considerably higher than is necessary and prorate the balance back to the patrons (or in a few cases to members only) at the end of the year. The more favored method after a moderately large balance has been built up is that of charging a rate just large enough to keep this balance constant. Associations, when organized, if they do not use a membership fee to obtain the necessary insurance fund balance, usually charge a higher rate than necessary to take care of the losses, first, in order to build up the balance in the fund, and second, in order to be on the safe side—not knowing exactly what the expenses will be, rates are temporarily set too high rather than too low for purposes of safety.

Losses tend to vary directly with the distance to market, varying in 326 associations in 1924 from about 1 cent a hundredweight for those associations shipping less than 100 miles to market to 1 2/3 cents for those associations shipping from 350 to 499 miles. Individual variations among the associations are large, however, and in considering table XI other factors affecting losses should be kept in mind.

Cooperative livestock shipping associations have, in general, adjusted their rates of insurance in accordance with the various factors influencing the costs of shipping.

TABLE XI. AVERAGE LOSSES PER CAR AND PER HUNDREDWEIGHT OF 326 ASSOCIATIONS—HOGS, 1924.

Distance to market	No. of cars	Tot. Amt. of losses	Approximate losses		No. of Assns.
			Per car	Per Cwt.	
Under 100 miles	4,885	\$ 7,562	\$1.55	.01	47
100-199 "	3,096	6,207	2.00	.01½	34
200-349 "	25,617	12,147	2.20	.01½	147
350-499 "	21,846	7,987	2.70	.01½	98

Table XI shows how losses increase as the distance to market increases. Table XII shows the adjustment in insurance charges as a result. This latter table is based on those associations which pay for only small miscellaneous expenses, in addition to losses, out of the sinking fund.

Many associations can improve their system of and technique for paying losses and levying and collecting the insurance. The fund thus collected is really a reserve for the payment of losses, and its designation as such might make more obvious the desirability of collecting and accounting for it separately. It is vitally important that the management know the exact costs of shipping to the several market outlets to which the association has access in order to decide upon the best one to use. Losses constitute one of the costs of shipping, and it is important that the records kept will definitely show these losses.

It is important, therefore, to make a separate accounting of all losses. In order that each member should bear his proportionate share of this cost, insurance rates should be determined that reflect the different amounts of losses likely to occur to the different market outlets. Several associations in Iowa have two rates, one for those shipments going to a nearby market, and another for those shipments going to a more distant market, based on the losses which have occurred in shipments to each market in the past. To this loss rate, they add another to take care of miscellaneous expenses, and feed and bedding when these are supplied by the association. This rate will vary with the cost of corn and other supplies. This flexible rate allows for a very satisfactory distribution of the expenses among the patrons.

Probably the most desirable method of applying insurance is as a percentage of the value. This method automatically takes care of changes in hog prices. Under either the per hundred-

TABLE XII. AVERAGE INSURANCE RATES ON HOGS PER HUNDREDWEIGHT—284 ASSOCIATIONS—1924.

Distance to market	Insurance rate in cents per cwt.	Number of associations	Pct. Inc. over shortest haul
Under 100 miles	2.59	45	-
100-199 "	3.16	30	-
200-349 "	3.38	110	30
350-499 "	3.76	99	45

weight or per head basis changes in hog prices will normally necessitate changes in the rates, for losses in dollars and cents will be higher when hog prices advance, while at a flat rate per hundredweight sinking fund collections will remain the same.

Sinking fund insurance rates on all classes of livestock were lower in 1925 than in 1920. The average rate of insurance in 225 associations in the 1920 survey on hogs was just over 5 cents a hundredweight. In 1925 the average rate of insurance in 371 associations basing their rates in cents per hundredweight, was just over 3 cents, a reduction of 40 percent. This change was due largely to the decrease in the price of hogs between 1920 and 1924. In 1920 the average farm price of hogs in Iowa was \$13.02; in 1924, \$7.34, a decrease of nearly 44 percent. A contributing factor has been an improvement in loading and handling practices that has cut down losses. Both of these changes have permitted lowering the insurance rate.

CATTLE AND CALVES

Methods and bases of collecting insurance on other classes of livestock vary as greatly as they do on hogs. Insurance rates on cattle are usually lower per hundredweight than on hogs. (Table XIII.) Detailed information concerning cattle losses is lacking in the majority of the material collected during 1925, but from the records in which the information is complete indications are that losses on cattle average about two-thirds of those on hogs. The cattle losses appear to be one-third less than hog losses, insurance rates are only about 10 percent lower. For 468 associations the insurance on hogs averages about 3.6 cents a hundredweight and on cattle 3.2 cents a hundredweight.

Cattle insurance rates, like those on hogs, are most commonly applied on the weight basis. Insurance as a percent of the market value has the same advantages for cattle as hogs, but other methods of insurance have certain advantages that should receive consideration. One of the big commercial companies insures cattle and calves at a certain number of cents per head, depending on the grade of stock and the distance to market. They believe that this represents more accurately the losses among the different grades of livestock and that, for instance, old cows, canners and poor cattle in general, will incur larger losses in transit, not only in number, but in proportion to the value of the shipment, than will fat steers, heifers or stock in good condition.

Most shipping associations charge the same rate of insurance on calves that they do on cattle. A few, however, charge a higher rate, the most common being 25 cents a head. Most of these associations are located in the northeastern, the dairy, section of

TABLE XIII. INSURANCE RATES ON CATTLE, 1925.

Basis of Application*							
Cents per Cwt.		Cents per head		Percent of net market returns		Percent of gross market returns	
Rate	No. of Assns.	Rate	No. of Assns.	Rate	No. of Assns.	Rate	No. of Assns.
½	2	3	3				
1	28	10	3	.10	3	.10	1
1½	15	15	1				
2	99	20	2	.20	2	.20	2
2½	7	25	2	.25	22	.25	3
3	90			.30	5		
3½		35	1	.35	1	.35	2
4	42			.40	1	.40	1
4½							
5	27			.50	52	.50	5
6	25			.60	3		
7	25			.70	2		
7½				.75	2		
8				.80	2		
10				1.00	2		
12½				1.25	2		
20				2.00	1		
25						2.50	1
30						3.00	1
Total	360		12		100		16

Commercial insurance 36
 No insurance 69
 Miscellaneous 62

*See note table X.

the state, where the shipping of veal calves is relatively important. While we are unable to give accurate figures on losses on calves as compared to cattle, it appears probable that they are considerably larger, especially when cattle and calves are loaded indiscriminately into the same car. Many of the managers of the associations handling a considerable number of calves have expressed the opinion that losses on them would average twice as high as on cattle.

SHEEP

Insurance rates on sheep vary greatly. (Table XIV.) Many shipping points do not load out any sheep and at a number of others, the local shipping association does not handle sheep shipments at all.

The average rate of insurance on sheep shipments is 3.4 cents per hundredweight. This is a little lower than for hogs when the insurance is adjusted in cents per hundredweight. If, on the other hand, this rate of insurance is adjusted to percent of the market value, the following comparison is obtained: cattle, 0.32 percent, hogs 0.36 percent, sheep 0.45 percent. This is a more equitable basis for comparison, since the value per hundredweight varies between the different species of livestock, and it appears, insofar as varying insurance rates indicate variations in

losses, that sheep are more subject to losses than either hogs or cattle.

Almost without exception, shippers of full carloads of stock were given the privilege of shipping at their own risk should they wish to do so. Thus, they contribute nothing to the insurance reserve, but receive nothing from it should they incur any losses. In half a dozen associations all shippers were accorded this privilege, but this practice is looked upon with disfavor by the managers, because it means more work for them and is always a cause of more or less dissension.

Payment of the Manager:

The methods of insuring livestock are only exceeded in number and diversity by the methods of paying the manager. The sum collected for this purpose is usually called the manager's "commission" and will be called such in the following discussion. This "commission" is usually paid not for marketing the livestock, but simply for the physical handling, including the weighing, loading and billing, and thus differs from the commission of the firms on the central markets who sell the livestock.

The majority of the manager's "commission" or fees are charged on a weight basis, ranging from 2 to 10 cents on a hundredweight. (Table XV.) Of the other associations, 52 charge on

TABLE XIV. SHEEP INSURANCE RATES.

Basis of Application*							
Cents per Cwt.		Cents per head		Percent of net market returns		Percent of gross market returns	
Rate	No. of Assns.	Rate	No. of Assns.	Rate	No. of Assns.	Rate	No. of Assns.
½	1						
½	1						
1	8			.10	1	.10	1
1½	3					.20	3
2	40	2	1	.25	35	.25	1
2½	1			.30	4	.30	2
3	33	3	1	.40	3		
4	26	4	1	.50	31	.50	2
5	18						
6	3						
7	1						
7½		7½	1	1.00	2		
8							
9				1.25	1		
10		10	2	1.50	1		
15				2.00	1		
17				2.25	1		
22				3.00	1		
25		25	1				
Total	135		7		81		9

No insurance 34

Commercial insurance 13

Miscellaneous 7

*See note, table X. Sheep were considered as worth \$7.50 a cwt.

TABLE XV. MANAGER'S COMMISSION ON SEVERAL OWNER LOADS OF HOGS*.

Cents per Cwt.	No. of Assns.	Cents per head	No. of Assns.	Dollars per car	No. of Assns.	Pct. of mkt. rec.	No. of Assns.
2	3	5	1	3.00	1		
2½	2	6	1	4.00	1		
3	17			5.00	5		
3½	2	9	1	5.50	1		
4	30	10	43	6.00	5		
4½	4			7.00	3		
5	119	12	1	8.00	7		
5½	6	13	2	8.50	1		
6	163	15	2	9.00	4		
6½	2			10.00	15		
7	64						
7½	1			12.00	3	.75	3
8	24						
10						1.00	20
Totals	437		51		46		23

Manager on salary, 46.

Manager's fee differs for members and non-members, 12.

*Following any line across the page will give a rough comparison of the several methods of paying the manager. Thus rates of 2½ cents per cwt., 6 cents per head, and \$4.00 per car are approximately equal. In obtaining this relation the average weight per hog was considered as 250 pounds and the average weight per car as 16,000 pounds.

a head basis, 46 charge by the car and the remainder base the commission on market receipts (percent of the value) or other miscellaneous methods. This miscellaneous group includes 46 associations in which the manager is paid a salary. In all but six of these the shipping association is a department of another business, a farmers' elevator, produce house or store, and the manager is paid from the general funds of the business, the charge made by the association for shipping being credited directly to the general business.

In 1924, over one-half of the associations charged a manager's fee on hogs of 5 to 6 cents a hundredweight. This appears to be somewhat lower than the rates charged in 1920, when prices were high. Table XVI gives a comparison of the manager's fees in 1920 and 1924 for those associations charging for his services on a weight basis. In both years the 5 to 6 cent rate was the most common, but in 1925 the proportion of associations charging over 6 cents was hardly more than one-half what it was in 1920.

TABLE XVI. COMPARISON OF MANAGER'S COMMISSION, 298 ASSOCIATIONS IN 1920, 437 IN 1925.

Cents per Hundredweight	Number of associations		Percent using each rate	
	1920	1925	1920	1925
Under 5	30	58	10	13
5-6	153	288	51	66
Over 6	115	91	39	21
Total	298	437	100	100

The reduction in manager's fees during this period has not been as large as the reduction in insurance rates, but this is to be expected. Insurance rates are adjusted to take care of losses and these latter will vary directly with livestock values. On the other hand, most managers' commissions have no relation to the value of livestock, but are simply a charge for the physical handling. This physical handling will tend to remain relatively constant and the charge for it will be much the same, except for such influences as the general level of wages and factors of like nature.

The manager's commission seems to bear no significant relation to the volume of business. (Table XVII.) It is probably more often determined by the customs of the neighboring associations, the local competition for the position and even by the mental attitude of the prospective manager. In certain communities a public spirited individual with high cooperative ideals will often undertake the management of a cooperative shipping association even tho it returns no, or only a small, financial gain.

In the majority of cases the manager spends only a part of his time working for the association. He looks upon the association as a sideline to his main activities and his fee is apt to be quite low. On the other hand, some managers spend all their time with the association. There is a tendency to charge somewhat higher rates if the volume is small than if it is large. However, a large volume is often closely associated with an efficient, highly paid manager to whom in many cases is left the selling of the stock. These conflicting forces bearing on the rate of the manager's commission cover up any possible direct relation between volume of business and the size of the manager's fee.

The foregoing discussion has been largely concerned with the managers commission on hogs, since this species of livestock forms by far the most important part of cooperative livestock shipments. The manager's commission on other species of livestock differs from the manager's commission on hogs only in that the rate of payment on cattle and sheep varies in many associations from the rate on hogs. In 430 associations collecting the manager's commission on a weight basis, the average charge for hogs was 5.8 cents a hundredweight, for cattle 5.3 cents a hundredweight, and for sheep 6.1 cents per hundredweight. This

TABLE XVII. MANAGERS' COMMISSION AND VOLUME OF BUSINESS, HOGS, 1924.

Vol. of business cars of hogs	Number of Assns.	Total cars	Ave. manager's commission
Under 50	186	5,414	5.68 cents per cwt.
50-99	216	15,397	5.42 " " "
100-199	138	17,990	5.64 " " "
200 and over	22	5,281	5.52 " " "

difference in rates tends to reflect the difference in the amount of time and labor that the manager has to spend handling the different species of livestock. Fewer cattle than hogs are required to load a car. At the same time, a carload of cattle will weigh about 22,000 pounds, and a single deck car of hogs will weigh 16,500 pounds, so that the total return to the manager may be more on a load of cattle than on a load of hogs. On the other hand, more sheep than hogs are required to load a car and they take more handling.

In many associations the manager's commission is the same for all species of livestock, but the associations in which it differs usually handle a larger proportion of cattle and sheep than the average. In these the manager's commission is usually from 1 to 3 cents a hundredweight less on cattle than on hogs, and 1 to 2 cents a hundredweight more on sheep than on hogs. Where calves form an important part of the association shipments, a special rate, usually somewhat higher than on hogs, is often charged because of the comparatively large amount of time it takes to handle them.

Management:

Probably no other factor influences so much the success of a cooperative livestock shipping association as the manager. Comparatively few shipping associations are efficiently managed, because the majority of them have not a large enough business to attract efficient management. Often the manager has had little or no previous experience and frequently has taken over the management under protest. These managers have neither the time nor the inclination to give the association the attention it deserves and needs if it is to be a success, even if they are otherwise qualified to do so. Managers of this kind do not have the full confidence of the members. Too often the manager is nothing more than a handler of the livestock. He is expected to weigh and load the stock and his advice in regard to either time or place of shipment is neither asked nor wanted. In these associations the shipper with the largest proportion of the car has the choice of markets and commission firms. Over one-half of the 576 associations surveyed belong to this group, the manager having no control over either the time or the place to market. A second group of associations (about three dozen) allow the manager to choose the commission firm to which to ship. Most of these associations are so close to a big market that they do not ship elsewhere. A larger group of associations, about one-third, leaves to the manager the choice of the market to be shipped to as well as the commission firm. A final group consists of those associations in which the manager's service is extended to provide market price information and suggestions regarding the

TABLE XVIII. VOLUME OF BUSINESS AND MANAGERIAL CONTROL OVER SALES, HOGS, 1924.

Managerial control	Total car-loads hogs	No. of Assns.	Av. carloads of hogs	Percent of all Associations
None	22,770	326	71	57
Over commission firm used	2,565	32	80	5
Over market and commission firm	16,587	189	87	33
Over time of sale market & commission firm	3,923	29	135	5
Total	45,845	576	79.5	100

best time to market. Only 5 percent of the associations fall within this class.

As a general rule, the more efficient and well-run associations have more managerial control over time and place of livestock disposal than do the "weaker" associations. This is reflected in the average volume of business of four groups of associations having different degrees of managerial control as shown in the accompanying table.

The efficient farmers' livestock marketing organization has a real opportunity to render real economic marketing service. Table XVIII reflects the relation between service and volume of business. If the management is able to give service, as is the case in the last group listed, the volume of business will soon reflect this service. As the volume increases, it in turn enables the association to improve its service thru supplying the volume necessary to sort into the grades that, when sold, or shipped discriminatingly, will bring the highest net returns to the patrons.

Some of these more efficient associations, thru the manager, disseminate among the patrons such pertinent information regarding the livestock trade as will enable producers to plan their production programs in the light of market requirements. A few managers suggest the kind and quality of livestock in most demand and the times when the different weights and quality of hogs should be marketed.

Cooperative livestock marketing associations must develop into efficient marketing organizations if they are to continue long in our marketing system. If they are to be of economic service to the farming community, they must do their work more efficiently than any other agency or must perform certain functions that no other agency can perform. Some of these services have already been outlined. In order to perform them, many associations must increase their volume of business. This can only be done for many associations by consolidating them with others in the same neighborhood, or by organizing an overhead organization to take the mixed lots from several small associations and then sort and reship them.

The volume and thus, often the success of a cooperative shipping association rests in a large measure upon the manager's ability to get and hold the business. The majority of the cooperative associations are at present actively competing with other handlers of livestock in the local market, and it behooves the manager, if he is to keep up or improve the service to the community, to work continuously in these interests.

It is necessary for the manager to be, above all, a good business man. He should know livestock and how to handle it; he should be up and keep up on market conditions; he should realize the advisability of being able to analyze his business at any time, which demands the keeping of a comprehensive system of records; and, in addition, he should be able to gain and keep the confidence of his patrons. Managers of this kind are few and far between. Table XIX lists the occupation of association managers.

A majority of the managers are either active or retired farmers. The majority of these men are primarily interested in their farming operations. They regard the association merely as a sideline as far as their financial returns are concerned and consequently do not pay it the attention that it always needs.

The group of retired farmers who managed livestock shipping organizations in 1924 had an average volume of business not greatly in excess of that of the associations managed by the active farmers. Most of these men were fairly well along in years and, therefore, were not as active in behalf of the association as the men that have been classified as association managers, tho the association business was usually all that they took care of.

The cooperative elevator group average is fairly high, but the range in this group is larger than in any other. Some of the elevators make a conscious effort to develop their livestock shipping. In these cases an assistant is usually hired to take care of the livestock shipping. In a few other cases the elevator manager gets a part of the commission charged for handling, thus stimulating his interest in this direction. Thus the volume of business of a part of the "elevator" associations is high. On the other hand, many elevator managers consider the shipping

TABLE XIX. "PRIMARY" OCCUPATIONS OF 528 LIVESTOCK SHIPPING ASSOCIATION MANAGERS AND AVERAGE VOLUME OF BUSINESS IN EACH GROUP.

Occupation	No.	Percent	Average volume of business (cars)
Farmers—Active	264	50	84
—Retired	33	6	90
Cooperative elevator managers	59	11	98
"Business" men	63	12	99
Association managers	109	21	131
Total	528	100	96

as somewhat of a nuisance. It interferes with the regular elevator work for which they are paid, is troublesome and takes a disproportionate share of their time, considering that they get no direct financial return for this work. The volume of business of these "elevator" associations is low. If the elevator is doing a large grain business, which keeps the manager busy, it will usually prove good business to obtain an assistant on a salary basis or one paid a "commission" to handle the livestock, if the volume, actual and potential, is large enough to warrant it.

The group entitled "business men" includes a number of managers with widely different "primary" occupations. Thirteen of them are general merchants; 9 are livestock buyers; 8 are cooperative store managers; 5 are lumber dealers, 3 are cream and produce station operators; 3 are bankers. There are also included in this group 2 each of the following occupations: garage operators, hotel keepers, butcher shop operators and station agents; and 14 miscellaneous occupations ranging all the way from a laborer to a postmaster.

Only a minority of the present managers have no other business than that of operating the local livestock shipping association, but the average volume of business of these associations is 131 cars, the largest of any group. The cause and effect relationship here is rather mixed. In the first place, these managers can afford to attend strictly to the association since the returns are large enough to justify it. On the other hand, the volume of business and, therefore, the manager's salary is larger because the manager spends all his time working in the interests of the association.

Managers with previous experience in handling livestock, either cooperatively or otherwise, or with a record of long affiliation with an association, are more apt to be found with associations that have a large volume of business than are managers with little or no experience. Table XX illustrates this point. The different groups are arranged as much as possible in order of the length of time that the manager has been handling

TABLE XX. EXPERIENCE OF 606 COOPERATIVE LIVESTOCK SHIPPING ASSOCIATION MANAGERS, 1924.

Experience	No.	Percent	Average volume (cars)
No previous experience	111	18	85
As farmer	243	40	80
As feeder	11	2	128
As intermittent buyer	32	5	92
With another association	17	3	107
With association 5 years	68	11	123
With association 6 to 10 years	80	13	134
As assistant	7	1	148
As regular buyer	39	7	141
Total	606	100	98

livestock. The number of samples in some of the groups is too small to be indicative of the trend.

Many of the managers who said that they had had no previous experience in handling livestock, cooperatively or otherwise, were farmers and, therefore, might have been included with the farmer group. Managers classified as farmers in this table indicated that the only marketing experience they have had is with their own livestock. Any managers that are farmers, but have been managers for five or more years, or buyers, or assistants are included in the latter groups rather than in the farmer group.

An examination of the number of managers per association since organization, or the average number of years service of each manager since organization shows an appallingly high "turnover." Including the present manager, whose term, of course, has not expired, the average number of years service has been 2.8. In 1925 the average association in the state had been organized 5.4 years, so that each association had had 1.9 managers since its organization.

Perhaps the importance of steady management by one individual may be best illustrated by taking the two years, 1919 and 1920, in which the largest number of associations were organized, and noting how the average volume of business decreased as the number of managers since organization increased. (Table XXI.)

The volume of business of a shipping association is reduced by a frequent change of managers not only because the new manager has to work into the job, but also because members are somewhat less apt to deal with the new manager until they have had time to ascertain his capacity. Frequent changes in management also cause losses in volume thru the loss of personal friends of the old manager, who are apt to think he has been mistreated. Not a few instances are on record where a disgruntled ex-manager has started another shipping association at the same point, or has started buying, neither of which is favorable to a large, flourishing shipping association.

TABLE XXI. RELATION BETWEEN THE NUMBER OF MANAGERS SINCE ORGANIZATION AND VOLUME OF BUSINESS OF ASSOCIATIONS ORGANIZED IN 1919 AND 1920.

Associations organized in 1919			Associations organized in 1920		
No. of managers since organization	Av. vol. carloads	No. of Assns.	No. of managers since organization	Av. vol. carloads	No. of Assns.
1	126	35	1	119	56
2	107	26	2	100	45
3	106	21	3	83	20
4	64	5	4	66	4
			5	44	2
Average	112	87	Average	103	127

Duties and Services Rendered by Managers:

In addition to the time spent in receiving and loading stock, the manager or his representative spends from one-half to several hours a shipment listing stock, one-half to several hours doing clerical work and taking care of overhead items and in a certain number of cases more or less time in soliciting. Receiving and loading stock usually takes a whole day, unless the stock train goes out before evening. One man can receive as many as six carloads of stock a day, while, on the other hand, it often happens that he has to spend the whole day at the yards receiving one load. Obviously, the man receiving six loads is making more efficient use of his time than the man who receives only one load during the day and, in consequence, can afford to devote more of his time, when not receiving and loading, to the association business. When more than a half dozen loads are due during the day, the manager usually finds it necessary to hire an assistant. The most common practice is for the manager to pay his assistant, and this appears to be an equitable arrangement.

One of the routine jobs usually performed by the manager is that of keeping the records. In a few associations this is done by the secretary, but most associations find that the better arrangement is to have them kept by the manager. Many managers and boards of directors do not realize the importance of an adequate system of records and, as a consequence, the records of many associations are very sketchy to say the least. During the last few years, however, great strides in record keeping have been taken by many associations. In 1925, 216 associations were using a system promulgated by Iowa State College and 30 were using satisfactory double entry or commercial systems. On the other hand, 215 associations were merely keeping the master-sheet of the terminal commission house on file and 75 were keeping very incomplete journal records. Only six associations were keeping no records at all.

The system of record keeping promoted by Iowa State College¹⁰ has been very well adapted to the needs of the average livestock shipping associations of the past and present, and it may be easily adapted to meet the more complex needs of the association of the future.

Listing and the clerical work incident to keeping the records tend to vary almost directly with the size of the shipment, the number of shippers per car, and the amount of prorating done at home.

¹⁰A complete description of this system of record keeping, together with a discussion on who should keep the records, may be found in the Iowa Agr. Expt. Sta. Bul. 209, Accounting Records for Livestock Shipping Associations.

PRORATING

Livestock, in general, and hogs, in particular are usually sold in one or two drafts regardless of ownership. It is then the duty of some agency to set the prices of the various grades of stock in the shipment in accordance with what they would have brought if sold separately, adjust these to ownership and then determine and deduct from these gross market returns an equitable expense item. This whole process is known as prorating, and practice in regard to prorating varies from one extreme in which the market agency does all of the prorating to the other in which the local association does all the prorating.

The problem is one that is causing considerable discussion and is one on which an arbitrary answer cannot be safely given. However, the number of shipping associations in this state which are doing their own prorating is gradually increasing—for several reasons. In the first place, the growth of local livestock markets and the increasing number of cooperative shipments going to them has resulted in an increasing amount of home prorating, since the majority of these local markets do not prorate returns at all. Thus it has devolved upon the manager to prorate these shipments. In the second place, home prorating, when done by a competent manager, should be more accurate than any other. Complete and detailed market information is available to the manager from a variety of sources, including the newspapers, radio, telephone and the commission company's and buyer's cards, as well as numerous government reports that may be had for the asking. Under these conditions, no one is in a better position than the manager to know the relative merits of the individual animals in the shipment. Incidentally, home prorating saves a charge of from \$2.00 to \$6.00 a car that the commission companies charge for prorating.

A further advantage of home prorating is that by so doing local producers can acquire knowledge that will enable them to lay the foundation for an improved product. Careful home prorating will impress upon the member the premiums paid for high quality livestock and the discounts for poor quality. Undoubtedly the members of many associations in this state have profited by such examples, but we have to go further afield to confirm this statement from a reliable source. In a paper presented at the Institute of Economics in 1927, E. C. Reeter¹¹, president of the Pickaway, Ohio, County Association, stated that the proportion of high quality hogs shipped thru the association had greatly increased since sales and returns had been made on a quality basis; premiums being paid for quality hogs with a high

¹¹Proceedings of the American Institute of Cooperation, 1927, page 583.

dressing percentage and discounts for poor quality hogs with a low dressing percentage.

The problem of home prorating divides itself into two parts. In the first place, there is the necessity of obtaining managers who are capable enough to do the home prorating. This has been, and still is, a difficult problem. In the second place, there is the necessity of educating the members so that they will realize the advantages, the economy and superior equitableness of efficient home prorating. Some of the largest and most successful cooperative shipping associations in Iowa do all the prorating of cattle, calves and sheep, as well as hogs, not only when shipping them to the local market, but also when shipping to the terminal market.

In addition to a more equitable distribution of expenses, home prorating enables the shipping association to ship to the local markets. These latter have been coming more and more into prominence as they have grown in size and number, and in 1925 one-third of Iowa hog marketings went to these markets. One of the more important causes for the death of local cooperative shipping associations has been their inability to compete, when shipping to the terminal market, with a competitor who ships direct to local or eastern packers. In many cases the association does not ship to these markets because the manager is not willing to do the prorating and the membership is not willing to let him do it. Under these conditions, home prorating is indispensable to the development of cooperative livestock disposal.

A final reason for the unwillingness of the manager to do the prorating at home can be laid to the fact that in the majority of associations he is not paid for doing so. The average manager's fee in those associations in which the manager does all the prorating was in 1925, 5.7 cents per hundredweight; in the associations in which the manager prorates the home expenses only, 5.7 cents; in the associations in which the manager does not prorate, 5.6 cents per hundredweight.

SOLICITING

In only a few of the associations surveyed in 1925 did the manager do any soliciting. (Table XXII.) It was almost impossible to get any definite information on the amount of soliciting done. It varied all the way from "none" to "all the time." In some cases the soliciting or driving consisted of driving out to see the herd at the owner's request and giving his opinion as to the advisability of selling or feeding further. This practice was common only in efficiently managed associations and cannot be too highly commended.

Soliciting does not seem to have much of a place in a real cooperative shipping association. While the associations solicit-

TABLE XXII. SOLICITING AND DRIVING BY THE MANAGERS OF 634 ASSOCIATIONS.

Amount	No. of Assns.	Av. carloads	Pct. of all cars shipped from station
None	253	104	43
No data	182	190	37
A little	77	103	43
Quite a bit	32	92	37
Some	30	80	32
Over phone	21	70	28
Continuously	17	112	41
At office	11	118	41
To fill loads	11	100	34
Total	634	100	39

ing "continuously" or "at office" have the largest average volume of business, they do not handle as large a proportion of the livestock shipped from the station as do those associations which do not solicit at all or which solicit only "a little."

"Driving," on the other hand, is often a sign of service to members rather than an indication of managerial activity in soliciting business. In many associations supplying efficient marketing service to members, the manager is often driving around answering calls, for marketing advice when not busy handling stock or making returns. A wide awake manager is able to supply the patrons with a wide variety of marketing and production information that soon results in increased business for the association.

A few associations have their managers travel to other parts of the state or country to buy feeder cattle and hogs for their members, and a few others have managers capable of, and a volume large enough to permit, sorting out the feeder stock as it arrives at the yards and selling it at the local yards to patrons desiring feeders.

Marketing Costs:

The direct and indirect costs of marketing livestock may be grouped under four heads: (1) Market Expenses, (2) Home Expenses, (3) Shrink, (4) Losses.

MARKET EXPENSES

Market expenses, so called because they are deducted at the market, include freight and feed enroute (if any), which are really in-transit expenses, as well as the selling commission, yardage, feed, inspection and insurance. Freight is an important item of expense, especially to the more distant markets, and usually varies less to them than to the local markets. The single deck rate on hogs to Chicago ranges from 25 cents a hundred-weight from Clinton County to 36 cents from a large part of the

western half of the state, whereas the range to Mason City for those associations shipping there is from 12 to 23 cents for a considerably shorter range of distances.

Freight and the other market expenses, commission, yardage, etc., are outside the manager's control to the extent that once having decided upon the market these items are automatically determined. For instance, if Chicago appears to be the market which will bring the largest net returns, then the freight is determined by the railroads, 25 to 36 cents a hundredweight, depending upon the location; yardage and feed is settled by the stockyards company and the selling commission and other miscellaneous charges by the rules of the Livestock Exchange. Local markets at which there are no public stockyards usually do not have as many items of expense as do the public stockyards. At most local markets freight and feed are often the only charges. Occasionally there is a small inspection charge. Often there is no feed charge and under these circumstances it is quite common for the buyer to allow a few hundred pounds for shrink. Others, again, base their quotations "on track" and then no deductions are made. There is, therefore, a wide diversity among different markets regarding the basis upon which prices are quoted and it is essential that the manager know upon what basis his available markets are buying, so that he may be able to compare prices on a "home net" basis.

HOME EXPENSES

Home expenses—manager's "commission," sinking fund charges and other home expenses—tho they are under the control of the local manager and his board of directors, tend to remain relatively constant. In a few cases only, did the 1925 survey find home expenses from the same shipping association varying to different markets. Of course, local feed, if supplied by the association, would tend to vary with its cost, but in all cases the manager's "commission" to various markets never varied (tho it often did between single and several owner loads) and, in six cases only, did the insurance vary with the market. The home expenses usually constitute the smallest item in the cost of marketing, rarely running over 12 cents a hundredweight, compared to the market expenses, which will run up to \$1.00 a hundredweight to eastern markets such as Buffalo and Pittsburg, and which rarely fall below 20 cents a hundredweight. Nevertheless, on the car, they may amount to \$15.00 or \$20.00, and this amount is more apt to result in friction between the manager and the membership than the much larger market expenses. Members will often try to save a cent on their manager's commission while completely overlooking the fact that

this "cheap" manager is losing them 10 to 25 cents a hundredweight by choosing the wrong market. The former is obvious, while the latter is not. It would prove good economy for many associations to pay a cent or two a hundredweight more for an efficient manager who, by careful and continuous studying of the various available markets, is able to net the patrons higher prices. In addition, many high-priced managers have, by prorating at home, saved more than the difference between their "commission" and the cheap manager's "commission."

SHRINK

Of all the dissension-breeders in the camp of the local livestock shipping association, shrink is probably the worst. In several owner loads, where the market weight of the whole load is taken and the shrink prorated on the basis of home weights, it is undeniably important. Since the majority of the shippers at present do not realize the wastefulness of fills, it is necessary for everyone shipping livestock to get the biggest "fill" possible. Packers and other buyers realize that they are buying a certain amount of feed and water every time they purchase an animal and naturally adjust their prices to take care of this extra weight, which represents to them a dead loss. Thus the seller is deluded into believing that he is getting paid for corn and water at livestock prices. Of course, it is claimed by the shipper that the fill simply consists in replacing the weight lost on the journey, but body tissues broken down and water lost from the tissues to provide the animal with energy cannot be replaced immediately, and body tissue is the only kind of "fill" that the buyer is willing to pay for.

However, the basis of selling livestock cannot be altered except by a concerted action upon the part of all producers. No part of the producers can by themselves institute a basis of selling without fill except thru a special arrangement with the buyer. In certain parts of the country, notably in the East, certain farmers' organizations have made arrangements with local packers for the latter to buy their hogs on a dressing percentage basis. In one successful county association of this type, the manager is able, because of his long association with livestock, particularly hogs, to sort his patrons' hogs rather accurately on a dressing percentage as well as a grade basis. Packers buying from him guarantee a certain price for the specific dressing percentage contracted for. When it runs a little over they pay a premium, when a little under they return a little less, and the patrons are paid after the returns are received from the packer.

Probably the most patent example in this question of fills is the practice of certain local markets of allowing from 100 to 400

pounds per car for shrink. They do not feed, but simply pay for several hundred pounds more livestock than they actually receive. Obviously they must pay a lower price for the actual pounds received in order to do this. As far as the farmer is concerned, however, this is a better practice than feeding, for he does not have to pay for the feed that would otherwise be necessary to put on the "fill." Now, obviously, an enlightened membership would have been willing to concede the shrink if they had gotten the returns in the form of a higher price per hundred pounds. At terminal markets, on the other hand, grain, for which the farmer pays, is fed the livestock, and over a period of time purchasers of the livestock do not pay for the weight put on by this filling.

The average cost of the feed on 21,900 hogs marketed at Chicago from October, 1926, to April, 1927, was 5.6 cents per hundred pounds. Their average weight was 238 pounds and the cost of feed per head 13 cents. About 44,000,000 hogs were marketed at the public stockyards alone in 1925 and, if 13 cents worth of feed was fed each hog, the total cost for feed would be \$5,720,000. Much of this is a direct loss to farmers as a class. Much exhaustive study is needed in order to determine upon methods of marketing livestock, applicable to Iowa and other Corn Belt states, that do not involve such losses. In all such proposals, humane considerations must not be lost sight of.

In one connection, however, shrink is an important economic consideration. This is the case when shipping to different markets is the point at issue. In these cases prices at the various markets must be discounted by the shrinks in order to get a comparable price basis. Many managers, when asked why they did not use a certain available market, replied that the shrink was too large. Managers and shippers have found it extremely difficult to balance probable variations in shrink against actual differences in price quotations.

The problem of comparing the price quotations of different markets is still further complicated by the diversity of the grades and weights upon which quotations are made. A number of the terminal markets, it is true, have quotations made on a uniform basis by local representatives of the Bureau of Agricultural Economics, but the remainder of the terminal markets and all the local markets use a weight and grade basis of their own in making price quotations. A crying need of the livestock shipper, be he a cooperative shipping association manager, local buyer or private shipper, is price quotations by all market outlets on a uniform basis.

An additional complicating factor is the variation in the amount of shrink on various kinds of the same species of live-

stock. Managers in general, when they prorate their own shrink, prorate either on a head basis or a hundredweight basis, with the latter in more common use. When prorating is done at the terminal market, it is always based upon the hundredweight. Some managers believe that a large hog shrinks no more than a small hog of the same kind and quality and, therefore, distributes the shrink on a head basis. Others believe shrink to vary directly with the weight and distribute shrink on a hundredweight basis.

Shrink, which consists of a loss of weight, may be of two kinds, the first due to a using up of the contents of the stomach and intestines without replacement, and the second due to a breaking down of the body tissues. The capacity of the stomach and intestines of a hog probably does not vary much with the weight, and, when loss in weight is due to an empty stomach only, the more equitable basis for the distribution of shrink is on a head basis. When the shrink has gone far enough to break down body tissues, the more equitable basis for its distribution should be by the hundredweight. Considerable detailed research work would be necessary to determine just of what shrink consists and what basis is the most equitable for its distribution.

No associations in this state use methods differing from the above in prorating shrink and any step in the improvement of method in this connection is still to be made. One suggestion that has been made is to use average shrink rates. This would necessitate complete records for some time in order to obtain a fair average to use. In the first place, the average used would have to vary according to the grades of stock shipped; for instance, sows tend to shrink more than butcher hogs even tho the weights may be identical. In the second place, it is probable that different shrinkage rates would have to be used during the various seasons of the year and they would most probably have to vary to different markets. Objections such as these would tend to make this method somewhat impracticable except for the larger associations. However, in several instances this method has been used in neighboring states with considerable success and might be adapted to meet these objections.

It is probably unnecessary to do more than mention other factors affecting the shrink since they have been reiterated so often in other publications. Mere mention of the influence upon shrink of feeding upon the farm before delivery at the yards, feeding in the yards and in the cars after delivery, method of delivery to the yards, care taken while in the yards, and the like, is enough to indicate their importance. The problem of the manager is that of the education of his membership with regard to the most satisfactory way to handle livestock.

LOSSES

The second indirect cost of marketing livestock arises from the losses incurred due to the crippling or death of animals from the time they leave the farmers' hands until they are sold. Shipping associations carrying their own insurance or insuring in commercial companies pay for all losses from "crips" or "deads" arising during this time.

Losses in transit tend to increase as the distance to market increases (table XI, page 26), but not in direct proportion. Shippers have to keep in mind, when determining upon the market to which to ship, their past experience with these markets with respect to losses. In some instances managers have found that the use of one railroad or another results in larger losses, which must be taken into account. However, most managers readily admit that railroad service is reasonably good and that such losses as do occur are due to improper loading and handling in the yards, or to "acts of God" over which they have no control, a cold or hot wave or storms and the like. Careful loading and bedding with sand in summer, straw in winter, and keeping the livestock cool in summer and protected in winter will help materially in keeping down losses.

Claims against the railroad for losses to livestock while in transit are a big worry to most association managers. It is doubtful if more than one-third the value of these claims is collected, and after the claim collector has taken out his commission, usually 15 to 20 percent of the face value of the claim, the remaining balance is often very small. Managers having the most success collecting for losses from the railroads are very careful never to put in excessive claims and never to put in a claim if there is any doubt as to the railroad's responsibility. Managers following these rules collect from 75 to 100 percent of their claims.

All managers, whether successful or not in collecting their claims from the railroad, complain about the length of time it takes to collect them. Perfectly valid claims, for instance, as a result of a wreck, may be anywhere from 3 to 6 months in the process of collection, while it is not uncommon for smaller claims for the crippling or death of an animal or two, to take 12 months or 2 years. There is, obviously, need of considerable improvement in this regard.

FEED AND BEDDING

An important part of the manager's work consists of feeding and bedding the livestock, both in the local yards and in the cars, and the skill and care used in the performance of this duty will directly affect the returns to the shipper.

TABLE XXIII. METHODS OF SUPPLYING FEED AND BEDDING.

Feed	No.	Bedding	No.
None used	12		
Farmers supply	202	Farmers supply	183
Association supplies and pro- rates its cost	276	Association supplies and pro- rates its cost	276
Paid out of sinking fund	82	Paid out of sinking fund	99
Flat charge	4	Flat charge	4

Associations often have varying practices to contend with in regard to feed and bedding. (Table XXIII.) In nearly a half of the associations the feed is supplied by the association and its actual cost is prorated among the shippers. In a large number of the remaining cases the farmers bring in the feed and bedding with them. In 75 cases, the associations pay for feed and bedding out of the sinking fund.

In many cases sand for use as bedding is supplied by the railroads during the summer, thus making it unnecessary for the shippers or the association to supply any other kind.

Managers who have been successful in keeping down shrink and losses from "deads" and "crips" have been uniformly careful in bedding down cars and feeding. Some of them even line the lower part of the hog cars with beaver board or the like during the winter in order to protect them from inclement weather.

FLAT RATE METHOD OF COLLECTING MARKETING COSTS

Some associations in other states are experimenting with a flat rate charge on hogs. The management takes each expense item and determines from past experience the average deduction necessary to cover it. The total of these deductions forms the flat rate. The deductions are determined for a number of varying conditions, such as different markets, resulting in different freight, shrink and loss rates and perhaps different feed and market expense rates; and different seasons and different classes and grades of livestock resulting in different rates in shrink, losses or other items. Thus, the individual shipper does not suffer if, thru no fault of his, the load is underweight, resulting in a higher freight cost, or delayed in transit, resulting in an unusually large shrink. He knows, too, exactly what it will cost him at all times. However, tho the flat rate appears to have possibilities, associations would have to base such a policy on a careful study of all the factors and should constantly check its efficiency. It appears to be applicable largely where the volume of business is enough to permit of obtaining a satisfactory set of averages covering all possible conditions.

SECTION II—MARKETING IOWA'S LIVESTOCK

In order to obtain the background necessary for a study of cooperative marketing, it will be helpful to review briefly the marketing of all Iowa livestock whether it is done cooperatively or otherwise. The tables and discussion in this review are based largely on the material presented in the yearly January 1 issue of the Iowa Monthly Crop Report issued by the Federal State Statistician and the State Department of Agriculture.

The problem of livestock marketing is radically different today from what it was several decades ago. Then it was simply a question of shipping to the nearest terminal market. Now the problem is to choose between several markets. In 1924 livestock shipments from Iowa went to at least 50 markets (fig. 9) and re-shipments of Iowa livestock probably went to as many more. In addition to this, there is a certain amount of intra-state movement, largely in feeder cattle, which provides other outlets for a small proportion of Iowa's livestock.

These markets, for purposes of comparison, have been divided into three groups. The first group contains 16 terminal markets, the second 15 local packers and the third 18 reload stations or concentration points. For all classes of livestock the terminal markets are still the most important outlets. (Tables XXIV, XXV and XXVI.) For the eight-year period, 1920-1927, the terminal markets received 61.7 percent of the hogs, 95.2 percent of the cattle and 99.1 percent of the sheep. But the local packers, especially for hogs, are rapidly assuming an important position. In 1920 local packers received 19.7 percent of Iowa's hogs, while in 1927 they received 35.6 percent. The average for the eight years is 26.6 percent. The reload stations have varied least of all, altho their general tendency has been downward.

The gain in the percentage of Iowa hogs received by local packers has been made at the expense of the terminal markets. These latter received 16 percent less of Iowa's hogs in 1926 than

TABLE XXIV. SHIPMENTS OF IOWA HOGS TO THE SEVERAL TYPES OF MARKETS, 1920-1927.
(Thousands of Head)

Year	Terminal markets		Local packers*		Reloads		All hogs
	Number	Percent	Number	Percent	Number	Percent	
1920	5,824	67.4	1,708	19.7	1,120	12.9	8,652
1921	5,873	65.2	1,965	21.8	1,171	13.0	9,009
1922	5,972	61.6	2,441	25.2	1,279	13.2	9,693
1923	8,443	64.1	3,101	23.6	1,612	12.3	13,156
1924	8,867	63.9	3,679	26.5	1,324	9.6	13,870
1925	6,918	63.0	2,969	27.1	1,056	9.9	10,973
1926	6,130	57.3	3,594	33.6	978	9.1	10,702
1927	6,900	61.0	4,120	35.6	1,541	13.3	11,561
Ave.	6,741	61.7	2,947	26.6	1,264	11.7	10,952

*Includes 10,000-30,000 head shipped direct to packers at terminal markets.

TABLE XXV. SHIPMENTS OF IOWA CATTLE TO TERMINAL MARKETS AND LOCAL PACKERS, 1920-1927.

(Thousands of head)

Year	Cattle and calves				All cattle Number
	Terminal markets		Local markets		
	Number	Percent	Number	Percent	
1920	1,655	97.6	41	2.4	1,696
1921	1,627	97.7	39	2.3	1,666
1922	1,645	97.6	41	2.3	1,686
1923	1,920	94.3	115	5.7	2,035
1924	2,054	94.4	123	5.6	2,177
1925	1,919	94.7	107	5.3	2,026
1926	1,788	94.2	111	5.8	1,899
1927	1,667	91.3	158	8.7	1,825
Average	1,784	95.2	92	4.9	1,876

they did seven years earlier, and the local packers received 16 percent more (fig. 10).

Local packers until recently were relatively unimportant as an outlet for Iowa cattle, but handled 9 percent of them in 1927. Reload stations handle no cattle or sheep at all.

Terminal Markets:

The terminal market receiving the largest proportion of Iowa livestock shipments is, of course, Chicago. (Table XXVII and fig. 10.) From 1920-1927, 30.6 to 44.7 percent of all Iowa hogs and from two-thirds to three-fourths of all Iowa cattle and sheep were marketed there. Sioux City ranked second and Omaha third as terminal market outlets for Iowa hogs. Of the "other terminal" markets, a list of which is given in fig. 9, St. Louis was the most important. The general trend of receipts of Iowa hogs at Chicago has been downward during the past eight years. At the other markets there have been considerable year to year fluctuations, but little evidence of any clear trend. The gains that the local packers have made, then, have been largely, tho not altogether, at the expense of Chicago. The majority, tho not all, of these local packers are in territory that would normally ship to Chicago if the local markets were not available,

TABLE XXVI. SHIPMENTS OF IOWA SHEEP TO TERMINAL MARKETS AND LOCAL PACKERS, 1920-1927.

(Thousands of Head)

Year	Terminal markets		Local packers		All sheep Number
	Number	Percent	Number	Percent	
1920	969	99.3	7	.7	976
1921	1,013	99.1	9	.9	1,022
1922	683	98.7	9	1.3	692
1923	713	99.2	6	.8	719
1924	860	99.4	5	.6	865
1925	736	99.1	7	.9	743
1926	853	99.0	9	1.0	862
1927	981	98.6	14	1.4	995
Average	851	99.1	8	.9	858

TABLE XXVII. PERCENT OF ALL SHIPMENTS OF IOWA HOGS GOING TO VARIOUS TERMINAL MARKETS, 1920-1927.

Year	Chicago	Sioux City	Omaha	Other Terminal	All Terminals
1920	40.4	9.7	7.3	10.0	67.4
1921	44.7	7.8	5.5	7.2	65.2
1922	42.5	7.4	4.3	7.4	61.6
1923	41.6	8.2	4.6	9.7	64.1
1924	41.2	8.3	4.5	9.9	63.9
1925	38.2	10.5	5.4	8.9	63.0
1926	33.7	9.6	4.9	9.1	57.3
1927	30.6	8.6	5.6	6.1	51.0
Average	39.1	8.8	5.3	8.5	61.7

and, since they tend to draw the majority of their hogs from territory fairly close to their plants, increased marketings to them has resulted in decreased marketings at Chicago.

Chicago is still more important as a terminal market for Iowa cattle and sheep than it is for Iowa hogs. Sixty and three-tenths to 73.4 percent of the cattle from Iowa have been marketed there in the past eight years. For sheep the range has been from 64.2 to 75 percent. (Table XXVIII.)

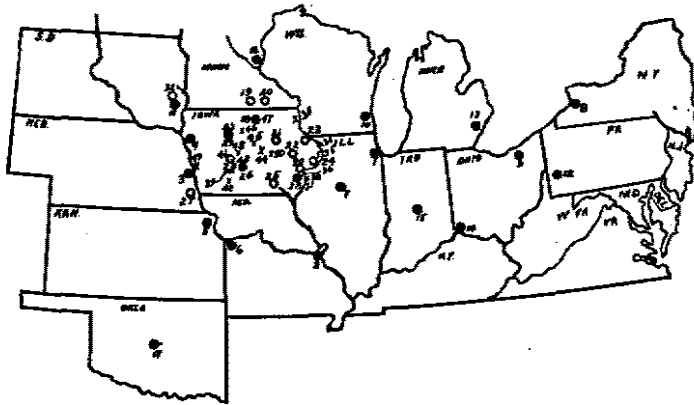
For cattle the most important "other terminal" markets were Omaha and Sioux City, the former receiving 10 to 15 percent of Iowa shipments and the latter 3 or 4 percent less. For sheep, Omaha ranked second, with Sioux City third and St. Joseph fourth. Receipts of cattle and sheep at the several terminal markets have fluctuated noticeably from year to year, but between 1920 and 1927 no particular trend is observed.

Local Packers and Reload Stations:

Figure 9 shows the distribution of Iowa livestock at the local markets. Twelve of the 16 local packers receiving Iowa livestock have comparatively large plants and all their products are federally inspected. The volume of business of these plants for the seven years, 1920-1926, averages about 226,000 head of hogs a year per plant. The other four local packers are smaller,

TABLE XXVIII. PERCENT OF ALL SHIPMENTS OF IOWA CATTLE AND SHEEP GOING TO CHICAGO AND OTHER TERMINAL MARKETS, 1920-1927.

Year	Cattle			Sheep		
	Chicago	Other Terminal	All Terminals	Chicago	Other Terminal	All Terminals
1920	65.3	32.3	97.6	64.2	35.1	99.3
1921	71.7	26.0	97.7	72.8	26.3	99.1
1922	73.4	24.2	97.6	72.7	26.0	98.7
1923	72.1	22.3	94.3	75.0	24.2	99.2
1924	71.3	23.1	94.4	73.2	25.2	99.4
1925	68.5	25.2	94.7	70.1	29.0	99.1
1926	65.9	23.3	94.2	71.0	28.0	99.0
1927	60.3	26.2	86.5	68.4	31.1	98.6
Average	68.9	26.3	94.4	70.9	28.2	99.1



- | | | | |
|-------------------------|----------------------|------------------------|--------------------|
| TERMINAL MARKETS | | | |
| 1 CHICAGO | 15 INDIANAPOLIS | 28 PERRY | 41 PERRY |
| 2 ST LOUIS | 16 ST PAUL | 29 FT DODGE | 42 CRESTON |
| 3 OMAHA | 17 OKLAHOMA CITY | 30 ALBIA | 43 FT DODGE |
| 4 SIOUX CITY | 18 | 31 MUSCATINE | 44 MARSHALLTOWN |
| 5 ST JOSEPH | LOCAL PACKERS | 32 SIOUX FALLS | 45 IOWA FALLS |
| 6 KANSAS CITY | 10 MASON CITY | RELOAD STATIONS | 46 EAGLE GROVE |
| 7 PEORIA | 19 ALBERT LEA | 33 MARQUETTE | 47 MASON CITY |
| 8 BUFFALO | 20 AUSTIN | 34 SAVANNAH | 48 BOONE |
| 9 CLEVELAND | 21 WATERLOO | 35 CLINTON | 49 MISSOURI VALLEY |
| 10 MILWAUKEE | 22 CEDAR RAPIDS | 36 MUSCATINE | 50 TAMA |
| 11 SIOUX FALLS | 23 DUBUQUE | 37 BURLINGTON | |
| 12 PITTSBURGH | 24 DAVENPORT | 38 KEITHSBURG | |
| 13 DETROIT | 25 OTTAWA | 39 VALLEY JUNCTION | |
| 14 CINCINNATI | 26 DES MOINES | 40 DES MOINES | |
| | 27 NEBRASKA CITY | | |

Fig. 9. Markets to Which Iowa Livestock Is Shipped.

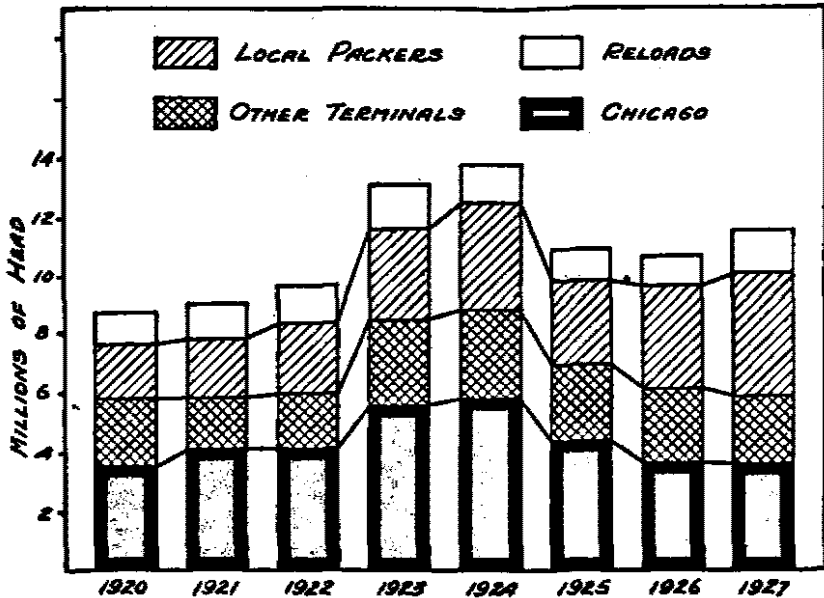


Fig. 10. Distribution of Iowa Hog Shipments, 1920-1927.

TABLE XXIX. PERCENT OF COOPERATIVE AND NON-COOPERATIVE HOG SHIPMENTS FROM IOWA TO SEVERAL MARKETS, 1924.

market	Percent		Market	Percent	
	Coop.	Non-Coop.		Coop.	Non-Coop.
Chicago	58.5	33.4	Eastern markets	.6	2.9
Sioux City	7.6	8.7	Local packers	12.4	33.3
St. Louis	7.4	2.2	Reload stations	7.4	10.6
Omaha	2.3	5.4	Other	.2	.4
St. Joseph	2.4	1.7	Total	100.0	100.0

each killing from 15,000 to 20,000 head of hogs a year. They are not federally inspected and, consequently, sell their products entirely within the state.

The concentration point volume varies considerably between stations and from year to year. Some of these buying points operate only at certain seasons, others operate the year round. The average volume of business of those buying stations for which information is available was, for the period 1920-1926, about 100,000 head a year per point.

Iowa Cooperative Shipments:

Of the 50 markets to which Iowa livestock is shipped, cooperative shipments in 1924 went to 36. The most notable of the markets to which no cooperative shipments went were Kansas City and St. Paul. Chicago was a relatively more important market for cooperative hog shipments from Iowa than for shipments other than cooperative. In 1924 nearly 60 percent of all the hogs shipped cooperatively in Iowa went to Chicago, whereas only about one-third of all the hogs not shipped cooperatively in the same year went to Chicago. On the other hand, in the same year nearly one-third of non-cooperative shipments went to local packers, whereas only one-eighth of cooperative shipments went to them. (Fig. 11 and Table XXIX.)

The indications are that this situation will not long continue. More local associations are making connections with local packers and reload stations every year, and the percentage of cooperative shipments going to local packers is increasing. Many associations have not used the local market in the past because they have felt that the local market was connected up in some way with the poor trading practices of some of the local buyers. A contributing factor was the fact that many local markets were at first loath to deal with these new organizations, preferring rather to make sure of a continual flow of hogs by dealing exclusively with the local buyer. This is now in a large measure a thing of the past, and many associations are finding that they cannot afford to overlook these outlets. The packers, on the

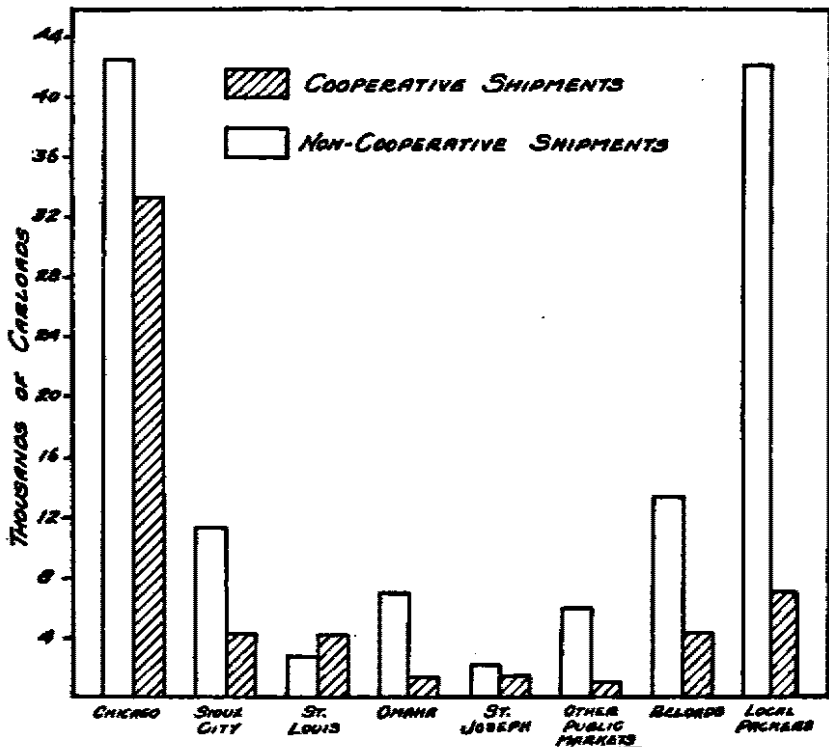


Fig. 11. Distribution of Cooperative and Non-cooperative Hog Shipments from Iowa in 1924.

other hand, have found it just as easy to keep a sufficient volume of stock coming in to keep their plants in operation thru connections with local cooperatives as with local buyers.

Local cooperative associations have been even more dependent upon Chicago as a market outlet for their cattle than for their hogs. (Table XXX.) Over four-fifths of the cattle marketed cooperatively in Iowa are sent to Chicago, compared with about three-fifths of the hogs. A larger proportion of the cooperative cattle shipments go to Chicago than of the non-cooperative cattle shipments, a condition similar to that observed in the case of hogs. Since many local packers do not handle cattle, it is to be expected that a larger proportion of the cattle shipments will go to the terminal markets, but cooperative shipments supplied only about 1 percent of the cattle used by the local packers in 1924, whereas they supplied about 14 percent of the hogs sold to local packers in the same year.

Number of Markets Used by Cooperative Shipping Associations:

Notwithstanding the number of available market outlets, most associations tend to confine their shipments to one or two mar-

TABLE XXX. PERCENT OF COOPERATIVE AND NON-COOPERATIVE CATTLE SHIPMENTS FROM IOWA TO SEVERAL MARKETS, 1924.

Market	Percent		Market	Percent	
	Coop.	Non-Coop.		Coop.	Non-Coop.
Chicago	84.7	89.4	St. Louis	.8	.6
Omaha	6.7	13.1	Local packers	.5	6.4
St. Joseph	1.7	1.6	Other	.2	.4
			Total	100.0	100.0

kets. The number of markets used by the average association in 1924 was two, according to the returns from 609 associations. But we find that 252 of them used only one market, while 242 actually did use two markets and the remainder used more than two. Of these latter, 66 used three markets, 34 used four, 12 used five and 3 used six or more markets. Of the 252 associations using one market, 222, or 88 percent, shipped to Chicago. Two hundred thirty-two, or 96 percent, of the 242 associations shipping to two markets, used Chicago as one of the markets shipped to; 63, or 95 percent, of the 66 associations shipping to three markets used Chicago; and 48, or 98 percent of the 49 associations shipping to more than three markets shipped to Chicago. All in all, 565, or 93 percent, of the 609 associations from which this information was obtained shipped either all or part of their livestock to Chicago.

For certain kinds and classes of livestock, Chicago may be the best market, altho it is probable that no one market is always the best for a particular grade of hog. But it is significant that as the percentage of the hog shipments going to Chicago increases, the volume of business decreases. (Table XXXI.)

Many associations think they can afford to ship to only the closest terminal market, with the result that many of the associations that do not ship to Chicago ship all their stock to some other market. But a survey of the volume of business shows a direct relation to the number of markets. An association shipping to any one of several markets as price quotations dictate finds in the enhanced returns to the shipper the most potent reason for its large volume of business. A large volume of business, on the other hand, enables the management to sort and

TABLE XXXI. PROPORTION OF HOGS SHIPPED TO CHICAGO AND TOTAL VOLUME OF BUSINESS, 1924

Percent shipped to Chicago	No. of Assns.	Average cars hogs shipped cooperatively	Average cars from station	Pct. shipped cooperatively
Under 15	138	108	201	54
15-45	54	101	212	48
45-75	57	82	176	46
75-100	348	75	168	45

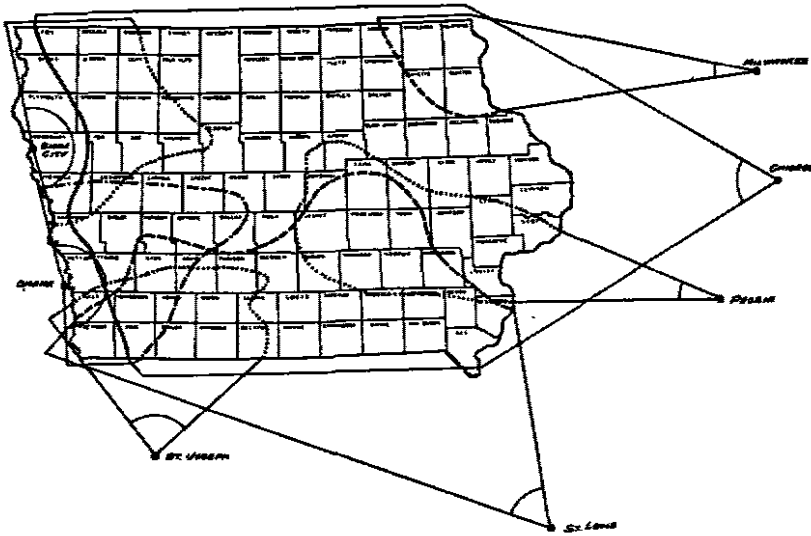


Fig. 12. Origin of Cooperative Shipments to Public Markets, 1924.

grade the livestock in accordance with the demands of the markets. The interaction of these two forces causes the situation shown in table XXXII. Practically all local shipping associations are located so that they may ship to any one of several markets, if their volume of business is large enough to enable them to do so and if the manager is "on to his job." Competition for the farmers' livestock is not limited to the terminal market, and the manager who watches all the markets to which he has access will average larger net returns than the manager who simply sells to one market without thought of any of the others.

Local packers and reload stations actually compete with the terminal market for the farmers' livestock. Proof of this competition is not lacking. Figures 12, 13 and 14 show the areas from which cooperative livestock shipments were shipped to 28 out of the 36 markets used in 1924. If these charts were superimposed one upon another, they would give some indication of the competition that is prevalent throught the state. Of course, railroad connections are often such that associations are unable to

TABLE XXXII. VOLUME OF BUSINESS OF 613 LIVESTOCK SHIPPING ASSOCIATIONS, 1924.

Number of markets used	Number of associations	Average volume of business
1	252	82
2	242	104
3	66	119
4	34	141
5 or more	15	195

ship to some of the markets that would appear from these charts to be logical outlets for them, but, in spite of this difficulty, no association need lack for market outlets.

Compared to 1920, the biggest change in the market areas from which cooperative shipments were made to stockyard markets has been the increase in the area shipping to St. Louis. In 1920 the zone from which cooperative shipments to St. Louis were made consisted of about 12 counties in the southeastern corner of the state¹². In 1924 over one-third of the southern part of the state shipped at least some of its stock to the St. Louis market. Chicago, in 1924, apparently drew stock from a larger territory than in 1920. In the former year a dozen or so counties on the western border of the state shipped no livestock to Chicago. In 1924 only four counties did not make at least some shipments to Chicago. On the other hand, in 1920, Kansas City drew shipments from several counties in the central part of southern Iowa, while in 1924 no cooperative shipments went to the Kansas City market.

Trucking:

The advent of the truck in the carrying business has added another important problem to the list of those waiting solution

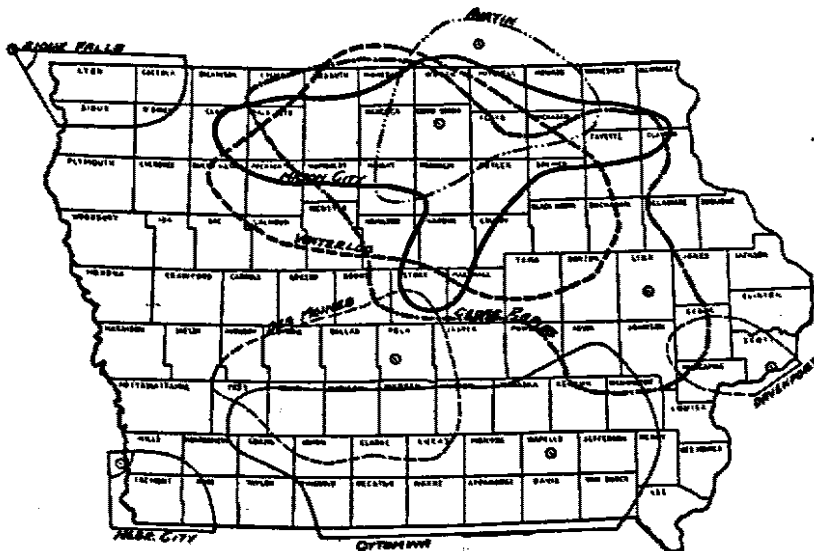


Fig. 13. Origin of Cooperative Shipments to Local Markets, 1924.

¹²Nourse, E. G., and Hammans, C. W., Cooperative Livestock Shipping Associations in Iowa in 1920. Bul. Iowa Agr. Exp. Sta. 200. 1921.

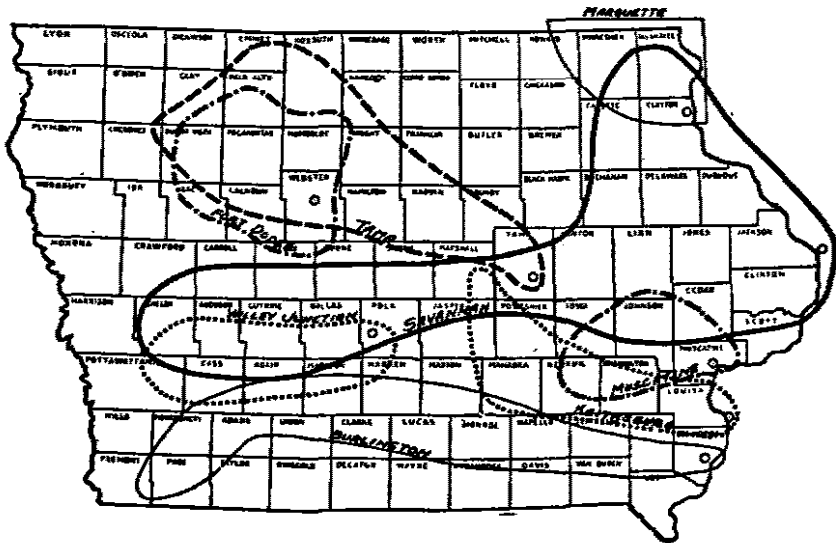


Fig. 14. Origin of Cooperative Shipments to Reload Stations, 1924.

by the livestock shipping associations thruout the state. Only in recent years has the truck become a factor of importance. Previous to 1920 a small proportion of Iowa livestock was moved to market by this means, but its growth since then has been continuous and, especially within the last two years, remarkably rapid.

The importance of the truck in moving stock to market is best understood when it is realized that in 72 counties out of a total of 99, at least some trucking direct to market, either a terminal market, a local packing plant or a "reload" station, was done, and in 20 counties the amount trucked was considerable.

Table XXXIII shows the hogs trucked to market from Iowa for the last eight years and the percentage that trucked hogs are of all hog shipments from the state. In 1927 one-fifth of the hog marketings were trucked, nearly three times as large a proportion as was trucked five years earlier.

TABLE XXXIII. HOGS TRUCKED TO MARKET. TERMINAL, RELOAD OR PACKING PLANT, 1920-1927.

Year	All hogs marketed (000)	Hogs trucked to market (000)	Percent trucked
1920	8,652	484 (Est.)	5.6
1921	8,984	566 (Est.)	6.3
1922	9,699	698 (Est.)	7.2
1923	13,216	999 (Est.)	7.5
1924	13,370	1,056	7.9
1925	10,973	1,288	11.7
1926	10,675	1,704	16.0
1927	11,561	2,227	19.3

Of course, the truck is used much more extensively than this for hauling livestock, for many farmers, probably one-half, truck their stock to the local shipping point, but it is usually the use of the truck in moving the stock to market that causes the shipping association most concern.

An examination of the map on page 8 will show that many of the associations going out of business since 1921 have been fairly close to a market outlet. In many of these associations the failure to solve successfully the trucking problem has been the prime cause of their failure. However, an occasional cooperative shipping association has been able not only to withstand successfully the competition of the truck, but also to increase the volume of business in the face of it. No set formula can be put forward that will solve the problem. Each association will be forced to work out its individual salvation by itself or in cooperation with others. Some of the associations operating successfully where trucking is prevalent have themselves adopted the truck and are going right out to the farms for the stock. Other associations have been able to continue to use the railroad exclusively for getting their stock to market and still others are using both methods.

It is not difficult to see the advantages of trucking directly to market. It saves the farmer the time and trouble of getting the stock to the local shipping point, and returns are received more quickly. The former may be of great benefit to him, especially during the busy seasons of the year.

The disadvantages of trucking are numerous and many of them are not so obvious. In the first place, hauling by truck is usually more expensive, often being three times as high as the cost by rail to the same market. Secondly, trucking engenders the feeling that no shrink is incurred, because the farmer usually has no home weight with which to check his market weight. Such information as is available tends to show that while shrink from trucked hogs is not as large as that received when the stock is shipped by rail, it is at least two-thirds as large. In the accompanying table the shrink given is that from the local shipping point to the market. Of much more importance, if obtainable, would be the shrinks between the farm and final disposal by the alternative methods.

A third important disadvantage of the truck is the irresponsibility and carelessness of many of the private operators. In

TABLE XXXIV. SHRINK ON HOGS WHEN SHIPPED BY RAIL AND BY TRUCK TO THE SAME MARKET, 1924.

	Number of head	Percent shrink
Truck	1,369	.48
R. R. stock car	17,289	.72

many cases they are operating on a "shoe-string," and losses from accidents or carelessness can not be collected even if it were legally possible to do so. At present no provision has been made for the control of these carriers or for making them responsible for the livestock while it is in their care. There has been considerable complaint, too, of mistakes made in the returns. Farmers are often paid for a smaller or larger number of hogs than they loaded on the truck, simply because the truck operator has not been careful in making out his returns.

Another fact that the livestock shipper has to take into consideration is that the "market," especially the local packers, usually discriminates against trucked hogs and pays 10 to 30 cents less for them than for carload lots of the same weight and quality, because of the greater expense involved in handling and accounting for the smaller lots and because the packers have found that these hogs carry a larger fill and do not have as high dressing percentage.

Trucking within the last year or so has been greatly facilitated by (1) a larger, more efficient truck and (2) in some parts of the state, notably the north, by hard surfaced roads. The newer trucks quite commonly haul 30 to 50 hogs at once. This is equal to at least a half carload and as trucking costs do not go up as fast as the capacity of the truck, we find these newer trucks offering a little better service at a somewhat cheaper rate than those of a few years ago. Hard surfaced roads have an important bearing on the trucking problem, as a comparison of the percentage of receipts from Iowa received by truck at eight markets in the state will show. (Table XXXV.)

As the hard surfaced roads in the state increase we will tend to find larger and larger proportions of our livestock going to market by truck. Possibly, even where the roads are now hard surfaced, we will find a larger proportion of the stock going to market by truck as the area covered by the truck increases for, at present, the area from which trucking is a factor is increasing rapidly. Even if trucking were limited to 50 miles, a very large proportion of the state would be within trucking distance of at least one market, and many areas would be within this distance of two or more markets. (Fig. 15.)

TABLE XXXV. PERCENTAGE OF RECEIPTS OF IOWA HOGS RECEIVED BY TRUCK IN 1925 AT EIGHT MARKETS.

Market	Road	Pct. of hogs trucked	Market	Road	Pct of hogs trucked
Market No. 1	Good	62	Omaha	Poor	37
Sioux City	Good	35	Market No. 4	Poor	14
Market No. 2	Good	28	Market No. 5	Poor	9
Market No. 3	Good	25	Market No. 6	Poor	6

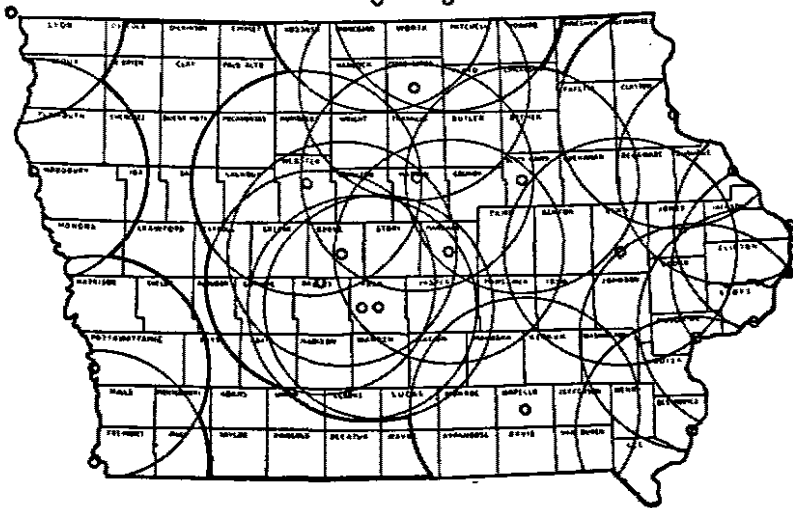


Fig. 15. Areas in Iowa Within 50 Miles of a Market.

The truck has been an important cause of the death of many associations since 1920, but the associations that have ceased business because of the operations of the truck have usually been small volume, inefficient associations that were unable to offer a service comparable to that supplied by the truck. Thru the use of the truck the patrons of these associations obtained a more efficient service to the local market, but at the same time lost an opportunity to develop an efficient selling organization. Since the death of the shipping association, the former patrons have been obliged to market their hogs by truck or sell to the local buyer, unless they have volume enough to ship a full car, because the organization whereby the small lots of hogs were concentrated has disappeared. Under these conditions the truck has indefinitely postponed the development of a really efficient farmers' livestock organization.

On the other hand, there is no reason why a live farmers' marketing organization cannot make use of the truck to increase its efficiency. The truck should make markets accessible to this association that could not be reached before because of the lack of adequate railroad connections. Increased service or increased returns or both may be rendered the patrons because the truck enables the association (1) to ship to the previously inaccessible market when a comparison of the probable net returns indicates that it should do so, and (2) to market odd lots, or leftovers, at any time instead of holding them in the yards or overloading. The degree to which the truck can be adapted to the uses of the

association depends upon the conditions under which the association is operating. Excellent railway service should reduce trucking to a minimum and, conversely, poor railroad service to one or more desirable markets, might make the truck the principal means of livestock transportation.

SECTION III—PROBLEMS OF THE LOCAL LIVESTOCK SHIPPING ASSOCIATIONS IN IOWA

The immediate problems of the local livestock shipping association center around the volume of business and the manager. With the first the problem is to obtain, in the large majority of the associations, a larger volume of business, and with the second the problem is to obtain efficient management. The problems are inextricably bound up with one another, and the solution of one will go a long way toward solving the other, for efficient management is usually only possible when the volume of business is large enough to warrant satisfactory financial returns to the manager. Many associations in this state are run by public spirited individuals who deem it more or less of a duty. While they undoubtedly do the best they can under the circumstances, their living is made from some other source and they cannot afford to put the time on the association that is essential to make it a real success.

Too many associations in the state are simply what their names imply, an organization formed for *shipping* the small lots of livestock of several members to market, the choice of the market being left to habit or to the patron who is shipping the largest number of livestock in the car. Not enough of them are *selling* organizations, organizations that not only take care of the physical handling of the livestock, but, also, thru continual, careful, complete and comprehensive studies of their various market outlets, are able to sell their stock to the best advantage. The possibilities in better selling are well demonstrated by a few associations. One of these in the northern part of the state has an average yearly volume of business running over 500 cars. The manager of this association gets daily quotations from at least three and, if circumstances appear to warrant it, from four or five local packers or concentration points in addition to the regular quotations from Chicago and one or two other terminal markets. He then proceeds to study these quotations in the light of the class or classes of hogs that he has for shipment and finally sells at one or more markets, depending on the quotations that have been made for the kind of hogs he has to sell. Another association of the same type will, during the busy season of the year, sell half a dozen or more loads to a local packer, delivery to be made within four days, when he is reasonably sure that

the bid is better than will be made later in the week, even tho he may not have a hog in the yards at the time. In addition to a comprehensive knowledge of the market situation, this manager is also well acquainted with his patrons and knows just about how many and what kind of hogs he can expect during the week. His patrons in turn have full confidence in his ability and are prone to ask his advice in all matters pertaining to the marketing of their livestock. The education of the patrons regarding the advantages of cooperative selling (not shipping) is an easy matter under these conditions.

Many associations, however, ship all their stock to one market without even considering their alternative marketing opportunities. These associations are not in a position to wage a successful war with any new condition which may arise. The local buyer, for instance, may give the local association stiff competition, simply by selling the stock he buys to the best advantage. Again, most *shipping* associations have not been able to wage a successful fight against direct trucking, but all *selling* associations have had no difficulty at all in surviving and in growing stronger. The methods employed by these successful associations have varied, it is true. Some of them have adopted the truck almost completely, others rarely if ever use it, but both kinds have realized the advantages and usefulness of the truck and have adapted it to their own special set of circumstances. Those associations that have satisfactory railroad service use the truck largely for marketing small lots left over from railroad loadings. Thus, they are able to accommodate a patron should he suddenly desire to market a few hogs after listings have ceased and the cars have been ordered, and they are able to market the hogs remaining if numbers and weights have been misstated at the time of listing. For those associations that do not list but receive stock at all times the truck provides a means of marketing the part of a carload that often remains. The associations that do not have satisfactory railroad service to the local market or markets use the truck for a larger part of their marketings. The managers of these associations usually watch fairly closely those markets to which they have satisfactory rail connections and, generally, try to ship to them when market conditions appear to warrant it. Since in the association the truck goes right out to the *farm* for the stock, the managers of associations trucking the major part of their stock often find it difficult to get the members to ship by rail even when market conditions appear very favorable, because the patrons feel that the greater returns will not offset the time and trouble necessary to get their stock to the local shipping point.

The problem of selling livestock is distinctly the manager's. A "live" board of directors is of assistance in backing up the

manager and of course it should always maintain control; but selling is a technical part of the operation of a livestock association, and the manager is supposed to be a technician. Since the selling problem is distinctly a managerial one, and since the majority of associations in operation at present ship rather than sell, it is evident that the immediate problem of many associations is that of obtaining efficient management, and, to reiterate, efficient management necessitates a large enough volume of business to attract it. Even if the volume of business were large enough, the problem would be far from solved for there undoubtedly would soon develop a lack of good managers. There are some 700 associations in Iowa and many of them do not have capable managers. A number of the associations can never hope to develop volume enough to attract efficient managers. These should be consolidated with others, not only to make an attractive proposition for a manager, but to enable the efficient manager to perform an effective service for the patrons.

The next step for all associations is to obtain the best managerial talent that is available. Many associations have failed to do this because they have not realized its importance. Instead of making the proposition attractive by setting reasonable managers' commission rates and by setting up an organization capable of developing a good volume, they have attempted to keep down costs by cutting the managers' commission and setting up poorly conceived organizations. The associations that have realized the importance of efficient management have usually obtained such individuals from the ranks of the local buyers who have been cooperative enough in spirit to make good managers, or by exceptional individuals in the community, in some cases retired farmers who have been alive to the situation and who often have had considerable experience with livestock of their own.

All the legitimate means possible should be used in an endeavor to build up the volume of business. One of the best methods of doing this is to obtain an efficient manager who can sell livestock. He will soon build up the business of the association. In order to obtain such an individual, a few associations have guaranteed him a minimum volume of business. If the manager is all he should be, this minimum volume is likely to be greatly exceeded very shortly. Another method used occasionally to attract good management when the volume of business is rather small is to raise the rate of manager's charge a little above the usual rate, with the understanding that the rate is to be lowered as soon as the volume of business warrants it.

There should be, too, a consolidation of many of the smaller associations, either with one or two others of the same size or

with a larger association that is already flourishing, for many of the shipping points at which associations are located have not even a potential volume of business sufficient to attract good management. The difficulties arising from shipping from more than one point can be overcome if the patronage would rather ship from several points. Two successful associations in southeastern Iowa ship from a second station quite often. In one case a sub-manager is located at the second point who receives, weighs and loads the stock. In the other case the manager travels down the line and does this himself. The one disadvantage to these methods is that they do not allow the sorting and grading that would be possible if the stock were all hauled to the one loading point. In this regard the location of the point with reference to type of road is an all-important factor. Arrangements cannot be made to ship all of this stock in an area from one point if rains or snows make the roads more or less impassable.

So far, in this review, no reference has been made to the details involved in operating a livestock association, the proper performance of which is necessary for the continued success of the association. Most of them have been repeated so often in this and other connections that a reiteration of them here is unnecessary. Reference is made, of course, to the keeping of adequate records, the proper handling and care of the livestock both in the local yards and while "enroute," the proper attitude of the manager toward his patrons, the railroads and the directors, and, in return, the proper attitude of the directors toward the manager; in a word, the business-like operation of the association. All these, however, are essential ingredients of the mixture that makes up a local livestock "shipping" association.

The first section of this study has attempted to bring out the relation between some of the factors and the volume of business, this latter being taken as a measure of the success of the local organization. Success, of course, should be measured in terms of the returns to the producers, but, as this is obviously a practical impossibility, volume of business has been made the measure upon the assumption that those associations making the large returns will tend to develop into large volume of business associations, it being realized, of course, that some associations having a small volume of business were being managed so efficiently that their returns to the patrons were large. Managerial efficiency includes, then, not only that prime need of efficiency in the marketing of the livestock, but efficiency in handling all the details of the business, in keeping records, in handling livestock, in prorating and in keeping on good terms with each and all of the patrons.