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MINNESOTA farm business NOTES



CHANGING LIVESTOCK MARKETING CHANNELS

D. F. Fienup and G. A. Lane

Farmers usually market their livestock through one of several different outlets available depending on their needs and their judgment of the ability of a market to serve them. Market agencies compete for farmers' livestock through services offered and prices paid to farmers. It is through this process that livestock prices and relative movements through different channels are determined.

This article presents some of the highlights from recent research on livestock movements, and the basis on which farmers make their marketing decisions.

Hogs

Market outlets for hogs utilized by Minnesota farmers have shown substantial changes since 1940. Increased flexibility in transportation of livestock, wider coverage and use of market news, more specialized hog production, and an expanded feeder pig industry account for much of this change.

Farmers market a much larger percentage at terminal markets and much less through dealers, local markets, and cooperative shipping associations. Direct sales to interior packers have increased slightly. Sales through auctions doubled but accounted for only 2 percent of all farmers' sales in 1956.

Cooperative shipping associations have virtually disappeared. These once served a major need in concentrating livestock for shipment by rail to terminal markets. Many farmers who formerly shipped to terminals through their cooperatives continue to ship to terminals directly. This accounts for part of farmers' increased sales to terminals.

The decline in dealer and local market operations resulted mainly from improvement in transportation facilities and in farmers' knowledge of prices and market news. As farmers become more specialized hog producers, selling a larger number of hogs at one time, they are better able to perform their own assembly function. And

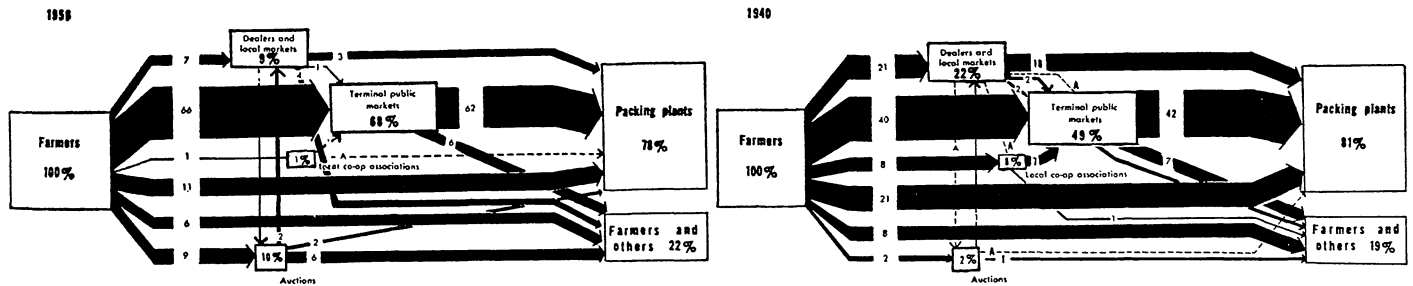
rather than depend on dealers and local markets for price and market news, these farmers follow radio and newspaper reports on various markets and then market on the basis of this information.

Dealers, local markets, and auctions primarily serve the expanding feeder pig industry. Movements of hogs from a market back to farmers indicates the hogs handled are mainly feeders. In 1940 dealers and local markets sold only 1 percent of all hogs back to farmers compared to 6 percent in 1956. Almost the total volume handled by auctions in 1956 was purchased by farmers.

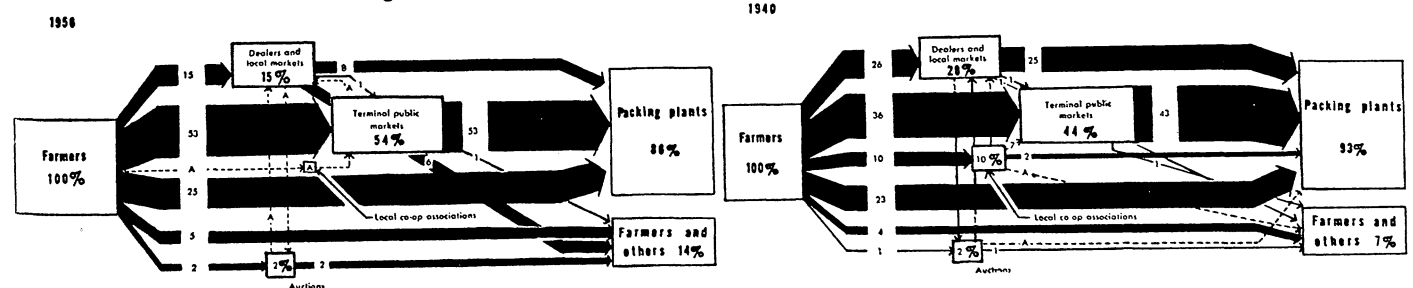
Sales by farmers direct to packers and at packer buyer stations have shown some increase, accounting for 25 percent of all hogs sold in 1956. Many packers have set up buying stations throughout the state. The accessibility of a market and lower trucking costs are often important factors in

(Continued on page 2)

Marketing channels for all cattle and calves, Minnesota, 1940 and 1956



Marketing channels for all hogs, Minnesota, 1940 and 1956



A—indicates less than 5 percent. Figures in the charts indicate percentages.

Marketing Channels

(Continued from page 1)

procuring livestock. Farmers gave these reasons as most important for selling direct to packers.

Farmers' shipments to terminal markets increased from 36 to 53 percent in the period 1940 to 1956. South St. Paul receives over 80 percent of the hogs marketed by Minnesota farmers through terminals. The presence of strong cooperative commission firms on this market may have much to do with increased farmer marketings direct to terminals.

The main reasons that farmers gave for selling to terminals were higher prices and a "broader market." A higher price and a "broader market" are related; the presumption being that more competition exists at the terminal market. This is an argument of long standing. Competition can and does exist throughout a marketing area as well as at a particular market place. To a large extent farmers make their own competition through their marketing decisions. If farmers have knowledge of prices paid at competing markets, and then market where their net return is highest, prices will be competitive. Here the importance of market news becomes most apparent.

Cattle

Even more change has occurred in livestock marketing channels for cattle and calves than for hogs. Terminal markets and auctions have greatly increased their share of receipts from farmers at the expense of all other marketing channels. Farmers marketed 75 percent of their cattle and calves through these two outlets in 1956 compared to 42 percent in 1940.

Despite the general trend toward more direct marketing of livestock in many other states, Minnesota farmers increased the percentage of cattle and calves sold through terminals from 40 to 66 percent. Sales through dealers, local markets, and cooperative shipping associations decreased from 30 to 10 percent. While reasons for this are not immediately obvious, information given by farmers in 1956 partially explains it.

Two-thirds of the farmers who derived a majority of their income from cattle sales through terminals gave higher price and a broader market as their principal reasons for this choice. The fact that most farmers sell in small lots may also be an important reason for shipping to terminals.

Between 1940 and 1956 little change occurred in lot size of slaughter cattle

sold. Only 20 percent were sold in lots of more than 20 head in both years. Terminals and packers continued to receive the same proportions of the cattle sold in these large lots.

However, the big increase in terminal market receipts came from farmers selling small lots. The majority of the farmers who continue selling smaller lots has shifted from local outlets, except for auctions, and now truck their stock to terminals. In part this may be explained by the farmer's belief that a higher price is received at the terminal market, more widespread use of market news, and perhaps the farmer's reluctance to judge what his cattle or calves are worth. Also it is known that truckers often pick up livestock from several farms to make a load. More telephones and better roads help facilitate this.

Summary

Marketing channels have undergone considerable change since 1940. Most striking is the growth of terminals as a market outlet. Hog sales direct to packers have increased slightly but cattle sales have declined substantially. This contrasts sharply with increased direct movements of livestock to packers in some other states.

Farmers' choices of market outlet for both cattle and hogs depend mainly upon higher price and a broader market or lower marketing costs. It is sur-

Analyzing the Costs Of Retail Feed Credit

R. J. Herder and R. P. Dahl

Feed purchases represent the largest single production supply expense of Minnesota farmers. In 1954, for example, farmers in the state purchased \$154 million of feed. This includes purchases from other farmers as well as from feed merchants.

Since farmers make heavy cash outlays for feed long before income is received they often need credit to finance its purchase. Dealers and manufacturers frequently sell feed to farmers on a credit basis.

A recent study of the credit practices of 144 retail feed dealers in Minnesota showed that most dealers, 44 percent, granted credit on open book accounts only.

About 40 percent of the dealers reported that credit was granted for 90 days; nearly 20 percent of the dealers

MINNESOTA farm business

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prising that relatively few farmers listed a higher net return as the basis for their decisions. This involves consideration of both the price and marketing costs. It may be, however, that many farmers' knowledge of grade or quality is sufficiently limited that receiving the highest price is most important to them. On smaller scale family farms such as predominate in Minnesota, many farmers apparently feel the need to sell through a commission man on the terminal market to assure getting full value for their livestock.

Although specialization and larger sized businesses have developed on Minnesota farms, there remains a vast number of small farms producing many types, kinds, and qualities of livestock. As long as this exists, Minnesota farmers will continue to need several types of market outlets to fit their needs.

granted credit for 30 days, while the remainder gave credit for 6 months or longer or had no specific time limit.

About 6 out of every 10 feed dealers made no separate charges for credit. The others made charges after a specified length of time. The most common interest rate was 6 percent. Dealers indicated that farmers often shop for liberal credit terms, hence it was difficult to establish credit charges without losing customers. Often the dealer is the last to receive payment because the credit is unsecured. This results in a large amount of dealers' capital getting tied up in accounts receivable.

The dealers cited several reasons for offering credit to their customers. One factor that was frequently mentioned was meeting the credit terms of competitors. The retail feed business is highly competitive. The average dealer in this study had a trade area with a radius of about 15 miles. More than 80 percent of the dealers had 5 or more competitors in their area.

Other dealers contended that far-

mers could not get adequate credit from lending agencies and hence the dealer has to provide it.

Costs to the Dealer

The credit costs of four dealers were studied in detail. Total sales of those firms ranged from \$452,875 in firm A to \$110,133 in firm D. Firm A had the largest ratio of credit sales to total sales, 70 percent, while this ratio was only 28 percent in firm B (See Table 1).

Credit costs can be divided into two groups—direct and indirect. Direct costs are the most important for management to watch because these are costs that can be controlled. In fact, they could be eliminated if credit were also eliminated.

Interest on funds invested in accounts receivable is the largest direct cost (see Table 1). Since this interest is not an out-of-pocket cost, it was estimated by applying a 6 percent rate to the year's average accounts receivable outstanding in each firm. Interest collected from credit charges was subtracted from this amount.

Bad debt expense is also an important direct credit cost. This was difficult to determine with accuracy because of the accounting procedures used by these firms. It was estimated to be .5 percent of the year's average accounts receivable.

If total direct credit costs are larger than the gross margin on credit sales, then the firm should drop its credit program if direct costs cannot be reduced. As shown in Table 1, the gross margin on credit sales less direct credit costs ranged from \$37,215 to \$2,708.

The second group of credit costs—the indirect costs—consists of managerial, clerical, and mileage expense. A characteristic feature of these costs is that they often cannot be significantly reduced by eliminating the credit program. Managerial and clerical costs shown were based on estimates of the time personnel spent on credit work. Mileage was considered an indirect cost because travel in connection with credit was often done in conjunction with other business matters.

The gross margin on credit sales in firm D was not sufficient to cover both the direct and indirect credit costs. This firm was having credit problems as indicated by the fact that 43 percent of its total accounts receivable outstanding were over one year old. It granted credit on a six month basis, but charged interest after 60 days. The manager indicated, however, that interest charges were often overlooked at the time of payment.

If a firm can reduce its credit costs through a more effective credit policy without losing sales, its profits can be increased. Some firms may find that a tightening of credit terms may reduce costs without an offsetting drop in profits due to lost volume. Others may find that more credit, under a well managed program, may increase volume enough to more than cover the extra costs. Conditions vary so much from one dealer to another that each must make this comparison for himself. A knowledge of the direct credit costs at a given level of sales is helpful in making such estimates.

Costs to the Farmer

In general, the retail feed dealers felt that the costs of extending credit were absorbed by them rather than being passed on to farmers.

The farmer may share the costs of retail feed credit in two ways, however. First, direct charges in the form of interest can be made by the dealer. This cost to the farmer is not too important because, as pointed out earlier, most dealers do not charge for credit. Furthermore, the survey indicated that some dealers who do make charges do not enforce them rigorously.

A more important consideration may be the extent to which the farmer bears the cost of this credit in the form of a higher price for feed. Although it is difficult to offer conclusive answers to this question, a knowledge of the characteristics of the feed industry may give some indications.

The retail feed industry is characterized by a large number of firms. It is relatively easy to enter the industry,

and firms can operate with or without a franchise from a major feed manufacturer. Businesses dealing in farm supplies can also add a feed line with a small capital investment. Furthermore, the possibility of substitution between different kinds and brands is quite high. Hence, the price of feed may not vary appreciably from dealer to dealer.

The individual dealer, however, may attempt to increase sales by various forms of nonprice competition. Brand promotion through advertising is one means of building sales.

Providing extra or better services is another form of nonprice competition. Credit is one of these services. The variations in credit terms and practices of the dealers in this study are an indication of the use of credit for this purpose.

The provision of credit increases dealers' costs which are probably absorbed by the firm in the short-run. The increased costs associated with credit will eventually result in operating losses for some firms, particularly those having a poorly managed credit program. Such firms go out of business eventually and prices will rise in the remainder to reflect the added credit costs. Hence, in the longer run the cost of credit will be included in the price paid by the farmer.

If, however, the credit were eliminated there is no guarantee that the reduced costs would be passed on to farmers in the form of lower prices. Dealers may substitute some other form of non-price competition such as advertising. The costs of this may be just as high to the dealer and yet have no direct value to the farmer.

Table 1. Estimated Credit Costs, Four Retail Feed Dealers, Minnesota, June 1957-May 1958

	Firms			
	A	B	C	D
Total sales	452,875	365,109	327,213	110,133
Credit sales	317,013	103,675	167,504	64,875
Cost of credit sales	275,533	93,940	151,708	60,670
Gross margin	42,480	9,735	15,796	4,225
Direct credit costs				
Supplies and postage	122	135	103	60
Collection	1,200	24	0	46
Interest	3,601	1,530	1,286	1,281
Bad debts	342	128	165	130
Total direct costs	5,265	1,817	1,554	1,517
Gross margin less direct costs	37,215	7,918	14,242	2,708
Indirect credit costs				
Managerial	4,136	238	150	3,728
Clerical	1,014	344	327	1,060
Mileage	140	14	17	70
Total indirect costs	5,290	596	494	4,858
Gross margin less total credit costs	31,925	7,322	13,748	(2,150)

THE OUTLOOK CORNER

The Feed Picture

The total amount of feed concentrates available this year is 264 million tons. This is 7 percent more than last year and 36 percent more than the 1953-57 average.

Farmers produced 166 million tons of feed grains (corn, oats, barley, and sorghum grains) in 1959. This is 5 percent more than last year and 21 percent more than the 1953-57 yearly average. See Table 1.

The production of corn has increased by 40 percent from 1953-57 to 1959. It now provides three times as much feed as the other three feed grains combined.

The annual by-product feed production is up 16 percent from the 1953-57 average.

The number of grain-consuming livestock units, 178 million this past year, has not been increasing as fast as the feed supplies. The present supply of feed concentrates of 1.48 tons per animal unit is a record amount.

The livestock will use about 184 million tons of feed in the year ahead which will leave a carryover of 80 million tons. This carryover is a record and equals 43 percent of next year's expected feed requirements.

The feed grains annually used for seed, human food, and industry have remained at approximately 12 million tons for the past 10 years. Annual exports, however, have increased sharply from 7.2 million tons during the 1953-57 period to 12.5 million tons last year—an increase of over 70 percent. This level of exports is expected to be maintained in view of (1) reduced transportation costs in the area served by the St. Lawrence Seaway enabling surplus fed grains to become more competitive in foreign markets, and (2) the special P. L. 480 incentives.

For Minnesota Farmers This Means:

Feed reserves are of record size and on the average you will probably pay somewhat less for feeds in the year ahead than you did last year.

Even though feed reserves are large, keep adequate supplies on your farm. Temporary local shortages or a limited

quantity of "free" grains (grains not under the price support loan program) may raise prices for you.

Feed costs per unit of production aren't expected to be much less than this past year. However, the large feed reserves are expected to result in more beef and pork and lower prices for cattle and hogs; all this, together with strong feeder stock prices, will be of greater concern to you in figuring your returns from your livestock enterprises.

Table 1. Production and Use of Feed Grains, United States

Item	Average		
	'53-'57	1958*	1959†
million tons			
Production and carryover			
Feed grains			
Corn	92	106	128
Oats, barley, sorghum grains	37	52	38
By-product feeds	24	37	28
Other grains fed	3	2	2
Carryover feeds‡	38	59	68
Total	194	246	264
Uses			
For livestock	131	153	159
Other uses	20	25	25
Total	151	178	184
Animal units of grain			
Consuming livestock	161.4	172	178
Supply per animal unit§ (ton)	1.2	1.43	1.48
Grain fed per animal unit (ton)81	.89	.89

* Preliminary.
 † Preliminary estimates based on indications in September, 1959.
 ‡ Stocks of corn and sorghum grains in all positions on October 1 and oats and barley on July 1.
 § Roughly, an animal unit is the livestock that will eat as much as 1 dairy cow, 1 feeder steer, 5 pigs, 7 sheep, or 50 hens.

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The Longer Outlook

Feed production has been increasing from year to year due largely to improved varieties and cultural methods. This trend is expected to continue. Any future move to dispose of some wheat stocks for animal feed would add to the supply of feed grains. Also, if adjustments in acres of grains to curb surpluses lead to more land in forage and grass production, the shift would be in the direction of more emphasis on cattle and sheep and away from hogs and poultry.

The outlook for high protein feed supplies differs from that for the feed grains: a strong, rising U.S. and world demand will continue.

Some large yearly fluctuations in the production of feed grains may be expected. For instance, production of the major feed grains in 1947 was only 97 million tons compared with 166 million tons this past year.

Increased population and high levels of employment will create a market for more livestock and livestock products: this in turn will create an outlet for more feeds. It is probable, however, that large supplies will continue to depress feed prices for some time.

For Minnesota Farmers This Means:

Trends in both feed and livestock production point to still higher levels. Prices, however, may weaken. Farmers must constantly look for improved methods to cut costs; to do this they must keep farm plans flexible.

With more feed and more livestock, the work load will increase, unless labor saving methods are developed.

With narrower margins but larger volume, it becomes even more important to watch economic developments and weather conditions closely, to reduce costs, and adapt marketing to the outlets available.

UNIVERSITY OF MINNESOTA
 Institute of Agriculture
 Agricultural Extension
 St. Paul 1, Minn.

SKULI RUTFORD, Director

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