



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

AGRICULTURAL EXTENSION DIVISION  
UNIVERSITY OF MINNESOTA

F. W. Peck, Director

MINNESOTA FARM BUSINESS NOTES

No. 172

April 20, 1937

Prepared by the Division of Agricultural Economics  
University Farm, St. Paul, Minnesota

RECORD-KEEPING BY COOPERATIVE LIVESTOCK TRUCKING ASSOCIATIONS

Prepared by S. T. Warrington and R. J. Eggert

A discussion of the history, development and fundamentals for success of cooperative livestock trucking associations appeared in the April, 1936 issue of Minnesota Farm Business Notes. There are now approximately 100 livestock shipping associations in Minnesota which use trucks for some or all of their hauling. About one-fifth of these associations own trucks and the discussion which follows relates particularly to the value of and the problems in connection with securing, keeping and analyzing the records which organizations of this type should keep.

The following suggested procedure for securing adequate cost records is similar to that successfully employed by one of the oldest cooperative livestock trucking associations in Minnesota: (1) Have the secretary keep the records and check on the daily cash outlays of the trucker-manager. (2) Require the trucker-manager to present an itemized account of the expenditures incurred by him before being reimbursed by the secretary. (3) Provide the trucker-manager with a report form (note illustration on reverse side) which will not only give the association an accurate basis for paying him for truck expenses and wages, but one that will also furnish it with such information as is necessary to determine the efficiency and soundness of the various trucking services.

The truck income record may be classified into income from livestock hauling, "back haul" and local hauling. Livestock hauling and "back haul" records should include the name of patron, item, number, weight and hauling charges. This may be used as a basis for collections, payment of wages to trucker-manager, and an analysis of volume to determine possibilities of increasing or improving on these services. The local hauling income record is different only to the extent that mileage instead of weight may be used as a basis for charges. An accurate and complete record of local hauling eliminates any question of favoritism on the part of managers and also furnishes the basis for improvements in the methods of charging for this service.

Truck expense records may be divided into three classes, namely, labor, fixed expense and variable expense. Labor expenses include the commissions or wages of the trucker-manager and that of extra help used in loading or driving the truck. Fixed expenses include charges for depreciation, interest on investment, license, permit and insurance. The variable expense record may be divided into expenditures for gasoline, oil, repairs and other items. These variable expenses should be broken down and recorded in such detail as to provide the board of directors with a sound basis for determining whether any costs are excessive and whether changes should be made in the motor, chassis, type of truck unit or method of operation. Too much emphasis cannot be placed on the value of detailed variable cost records. The importance of such a record is illustrated in the statistical analysis which follows.

Trucker's Report

<u>Livestock hauling</u>		Date _____		
<u>Name</u>	<u>Item</u>	<u>Weight</u>	<u>Rate</u>	<u>Total</u>
John Doe	1 cow	1,000	17¢	\$1.70
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total		_____	_____	_____

<u>Back or local hauling</u>				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Total		_____	_____	_____

<u>Expenses</u>			Speedometer
Gas, gal.	_____	\$ _____	reading
Oil, qts.	_____	_____	
Repairs	_____	_____	After _____
Wages	_____	_____	
Other	_____	_____	Before _____
Total		\$ _____	Miles _____

Check no. \_\_\_\_\_ Date \_\_\_\_\_

Four Cooperative Livestock Trucking Association Records

<u>Livestock Hauled</u>	<u>No. I<sup>1/</sup></u>	<u>No. II<sup>2/</sup></u>	<u>No. III<sup>3/</sup></u>	<u>No. IV<sup>4/</sup></u>
No. of cattle shipped	190	402	309	416
No. of calves shipped	492	742	932	1,023
No. of hogs shipped	757	870	903	1,287
No. of sheep shipped	9	670	50	52
Total weight of L.S. shipped by truck	440,708	753,351	670,415	815,173
Average weight per load	6,481	7,459	4,688	4,685
No. of loads of L.S. shipped by truck	68	101	143	174
<u>Association Income</u>				
Income from terminal L.S. hauling	\$1322.15	\$2624.34	\$1610.28	\$2289.90
Income from back hauls	471.57	85.31	1588.40	1146.78
Income from other hauls	538.04	-	-	-
Other association income	41.76	-	25.47	2.17
Gross income to association	2373.52	2709.65	3224.15	3438.85
<u>Association Expenses</u>				
<u>Labor Expenses</u>				
Paid manager for L.S. hauling	408.00	813.89	543.24	573.52
Paid manager for other hauling	23.80	42.65	270.17	354.65
Total managerial expenses	431.80	856.54	813.41	928.17
Paid for other labor & services	104.00	9.24	195.90	-
Total labor expense	535.80	865.78	1009.31	928.17
<u>Truck Expenses</u>				
Variable expenses:				
Gas 4129; 3337; 2448; 4826 gal.	671.43	572.64	461.30	815.50
Oil 426½; 134; 103; 257 qts.	98.30	23.46	23.75	48.45
Grease	4.65	13.55	12.90	22.80
Repairs, tires and new parts	117.69	148.22	137.82	203.60
Washing and other expenses	40.47	17.13	35.60	46.02
Total	932.54	775.00	671.37	1136.37
Fixed expenses:				
License and permit	108.50	15.25	22.46	21.20
Insurance	191.22	137.40	133.20	118.20
Interest on investment	32.17	24.86	20.60	21.95
Depreciation, 4-year basis	321.70	248.57	206.00	219.00
Total	653.59	426.08	382.26	380.35
<u>Miscellaneous Expenses</u>				
Association expenses	244.17	65.39	89.42	26.34
Association expense reserves	-	75.34	67.04	81.51
Livestock loss reserves	-	75.34	67.04	81.51
Total miscellaneous expenses	244.17	216.07	223.50	189.36
Net earnings of association	7.42	426.72	937.71	804.60
<u>Statistics on Cost of Operating Truck</u>				
Miles traveled	27,333	28,157	23,385	43,526
Gasoline cost per mile	\$.0246	\$.0234	\$.0197	\$.0187
Repair, new parts & tire cost permile	.0043	.0053	.0059	.0050
Total variable expense per mile	.0341	.0275	.0287	.0261
Total fixed expense per mile	.0239	.0151	.0163	.0087
Tot. variable & fixed exp. per mile	.0580	.0426	.0450	.0348
Tot. var., fixed & labor exp. per mile	.0776	.0734	.0882	.0562
Miles per gallon of gas	6.62	8.44	9.55	9.02
Miles per quart of oil	64.09	210.13	227.04	169.36
Distance from South St. Paul	123	112	50	73
Manager's income per mile	.0158	.0304	.0349	.0213

1/ Sept. 1, 1935-Sept. 1, 1936

3/ Jan. 1, 1936-Jan. 1, 1937

2/ Sept. 1, 1935-Sept. 1, 1936

4/ Feb. 1, 1936-Feb. 1, 1937

In addition to the records of hauling income and expenses, the cooperative trucking association should require speedometer readings to provide it with a basis for determining the miles traveled in picking up or assembling at local point, going to and from the livestock market outlet, picking up and delivering "back hauls" and in serving patrons on local hauls. Such a record furnishes the basis for comparisons between associations and rates charged for these various services.

The table on page 2 presents a statistical summary and a brief analysis of a year's records kept by four cooperative livestock trucking associations in Minnesota. The facts shown illustrate several of the mentioned reasons why accurate records and their analysis are valuable. For example, Association I, which hauled only 68 terminal loads of livestock during the year of this analysis, has the difficult problem of increasing its volume of business. Its total income from livestock hauling is the smallest of the four associations compared. Association II has a satisfactory income from livestock hauling but should place emphasis on the possibility of increasing its returns from back hauls. The total income of Associations III and IV is greatly increased by the amount of "back haul" income it receives. Thus, income and volume records enable associations to know accurately the amount and nature of their earnings and serve as a basis for directing improvements.

The net earnings of the associations as shown in the analysis do not necessarily reflect the success of the trucking associations, since differences in rate charges may account for a part of these differences in earnings. For example, Association I charges 30 cents a hundred for livestock hauling regardless of species or amount of the load, while Association II, which is located ten miles nearer the terminal market, charges 35 cents a hundred on pick-ups of less than load lots and 30 cents a hundred on full truck loads. Similar variation in "back haul" rates may also exist and cause part of the indicated differences in net earnings.

A record of the managerial and labor expenses again enable comparisons to be made with other associations. While the total amount of the manager's salary will vary with the miles traveled and volume hauled, satisfactory pay in general is necessary in order to get the best service. Adequate records enable a proper adjustment of the manager's commission.

The 6.6 miles per gallon of gas indicate that improvements can and should be made in gas consumption by Association I. The same is true of this Association's oil consumption. Factors, such as these, when combined with small volume, increase by over one cent per mile the cost of operating truck no. 1. On the basis of the actual mileage traveled during the year of the analysis, Association I could have increased its net income by \$273.00 if its cost of operation were reduced by this one cent per mile. Association IV starting operations with a new truck traded it in after ten months' use because complete record-keeping indicated that a \$200-bill for repairs, tires and new parts was excessive. Thus, accurate expense records served as a sound basis for making this change. Some reduction in miscellaneous expenses can probably be made by Association I. At least, a detailed record of these miscellaneous expenses enables the board of directors and members to give various cost items proper consideration.

In summary, this brief analysis and discussion indicate that cooperative livestock trucking associations can and should adhere to a carefully planned method of securing, keeping and analyzing their records. Record-keeping is valuable only to the extent that it provides an adequate and sound basis for making changes which will reduce the cost of hauling livestock and other products for the individual farmer and improve on the various services rendered by the cooperative livestock trucking associations.

MINNESOTA FARM PRICES FOR MARCH 1937  
Prepared by W. C. Waite and W. B. Garver

The index number of Minnesota farm prices for the month of March, 1937 was 104. When the average of farm prices of the three Marches 1924-25-26 is represented by 100, the indexes for March of each year from 1924 to date are as follows:

March 1924 - 84	March 1931 - 68	
" 1925 - 105	" 1932 - 47	
" 1926 - 111	" 1933 - 36	
" 1927 - 109	" 1934 - 54	
" 1928 - 101	" 1935 - 84	
" 1929 - 108	" 1936 - 82*	
" 1930 - 97	" 1937 - 104*	*Preliminary

The price index of 104 for the past month is the net result of increases and decreases in the prices of farm products in March 1937 over the average of March 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index,  
March 15, 1937, with Comparisons\*

	Mar. 15, 1937	Feb. 15, 1937	Mar. 15, 1936	Av. Mar. 1924-25- 26	% Mar.15, 1937 is of Feb. 15, 1937	% Mar.15, 1937 is of Mar. 15, 1936	% Mar.15, 1937 is of Mar. 15, 1924-25-26
Wheat	\$1.30	\$1.38	\$1.01	\$1.38	94	129	94
Corn	1.06	1.08	.45	.65	98	236	163
Oats	.45	.48	.22	.36	94	205	125
Barley	.93	1.01	.41	.60	92	227	155
Rye	.94	1.01	.41	.84	93	229	112
Flax	2.00	2.06	1.57	2.44	97	127	82
Potatoes	1.45	1.35	.50	.83	107	290	176
Hogs	9.40	9.40	9.50	9.97	100	99	94
Cattle	7.20	6.70	6.40	5.90	107	113	122
Calves	8.00	8.60	8.00	9.16	93	100	87
Lambs-sheep	9.56	8.60	8.76	11.53	111	109	83
Chickens	.108	.108	.143	.173	100	76	62
Eggs	.19	.173	.161	.20	110	118	95
Butterfat	.37	.36	.34	.46	103	109	80
Hay	9.50	9.23	5.63	11.03	103	169	86
Milk	1.40	1.91	1.66	2.13	99	114	89

\*Except for milk, these are the average prices for Minnesota as reported by the United States Department of Agriculture.

Indexes and Ratios of Minnesota Agriculture\*

	Mar. 1937	Feb. 1937	Mar. 1936	Av. Mar. 1924-26
U.S. farm price index	91.0	89.0	74.0	100.0
Minnesota farm price index	104.0	107.0	82.0	100.0
U.S. purchasing power of farm products	109.0	108.0	95.0	100.0
Minnesota purchasing power of farm products	124.0	130.0	105.0	100.0
U.S. hog-corn ratio	8.7	8.9	16.3	12.2
Minnesota hog-corn ratio	8.9	8.7	21.1	15.6
Minnesota egg-grain ratio	10.0	8.7	14.2	12.9
Minnesota butterfat-farm-grain ratio	22.3	20.5	44.8	39.8

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