FARM BUSINESS NOTES

Prepared by the Divisions of Agricultural Economics and Agricultural Extension
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The Feed Situation

S. A. ENGENE

Minnesota farmers are facing a critical feed situation during the coming year. The quantity of corn and small grains needed by livestock is high in relationship to the supply available. Prompt action by farmers and public agencies is necessary in order that our feed supplies may be used most effectively in meeting wartime needs for human food.

University Farm Radio Programs

HOMEMAKERS' HOUR—10:45 a.m.

UNIVERSITY FARM HOUR—12:30 p.m.

THE FRIENDLY ROAD—1:00 p.m.

Station WLB—770 on the dial

The present feed situation is the result of changes in livestock and feeds over a period of years. The number of livestock on Minnesota farms reached a record level during the years immediately preceding the drouth of 1934 (see table 1).

Table 1. Number of Livestock on Farms in Minnesota, January 1

Year	Cattle 1,000 head	Sheep and lambs 1,000 head	Hogs 1,000 head	Chickens 1,000,000 birds
1923-32	2,919	644	3,646	17.7
1933	3,408	907	3,496	19.2
1934	3,545	943	3,321	18.7
1935	3,179	950	1,900	16.4
1936	3,179	921	2,242	17.6
1937	3,211	1,041	2,242	18.2
1938	3,275	1,020	2,466	17.0
1939	3,308	1,000	2,811	18.5
1940	3,407	1,030	3,823	19.1
1941	3,577	1,133	3,402	19.3
1942	3,684	1,167	4,082	24.3
1943	3,758	1,165	5,102	29.3
1943 as a percentage of		Per cent		
1923-32	129	181	140	166

The number of livestock was reduced after the drouth of 1934, and remained low for about five years. The quantity of grains needed by livestock was reduced by 20 per cent. Since crop yields were average or better than average during the years immediately following the drouth, there was a large surplus of feeds on farms. Most of this was stored on farms under federal loan programs. The extent of these accumulations is shown in table 2. This accumulation of feed was nation-wide, and permitted a wartime expansion of livestock production above the numbers that could be supported by current production.

High crop yields during the last four years have also made it possible to maintain a high level of livestock production. From 1939 through 1942 the yield per acre of corn in Minnesota was 30 per cent above the yields of the previous 21 years; the yield of oats was 16 per cent above; and the yield of barley was 17 per cent above. The high yield of corn was due in part to the use of hybrid corn, but a part, as well as most of the increase in oats and barley, was due to favorable weather conditions. Yields of small grain do not appear as favorable in 1943 as during the previous years. Lower yields must be expected in the future. Livestock production must be planned on the basis of more nearly average yields.

Corn Reserves Reduced Since 1940

In spite of high yields during recent years, feed requirements have been larger than current crop production could meet. The reserves of corn on farms have been reduced each year since 1940 (see table 2).

The relationship of feed needs to current production is shown in table 3. During the five feeding seasons starting with October 1, 1936, the total production of corn, oats, and barley and the quantity of wheat and rye fed on the farms in Minnesota exceeded feed needs by one and three-fourths million tons. One and one-half million tons

Table 2. Corn, Oats, and Barley Stocks on Farms

Year	Corn, Oct. 1		Oats, July 1	Barley, June 1
	U.S.	Minn.	Minn.	Minn.
	Million bushels	Million bushels	Million bushels	Million bushels
1926-34 (avg.)	204	6.8	20.1	4.7*
1935	61	1.3	9.9	2.2
1936	172	8.5	47.1	14.9
1937	60	.9	14.0	5.3
1938	352	21.0	33.1	8.5
1939	553	38.0	27.0	12.0
1940	541	67.5	27.3	14.3
1941	473	45.9	36.2	15.9
1942	424	36.4	20.9	9.8
1943	445†	20.0†	33.7	13.1

* 1934 only.
† Estimated.

Table 3. Feed Production and Requirements in Minnesota

Crop	Average 1936-41	1941-42	1942-43	1943-44*
	1,000 tons	1,000 tons	1,000 tons	1,000 tons
Production minus seed				
Corn	3,529	4,574	4,890	4,924
Oats	2,180	1,660	2,649	2,334
Barley	1,081	973	1,112	695
Quantity fed				
Wheat	156	132	138	120†
Rye	54	28	34	22†
Total available	7,000	7,367	8,823	8,095
Feed needed for livestock	5,234	6,553	7,696	8,120
Available for other uses	1,766	814	1,127	—25
Sales off farms	1,546	1,333	1,482	?
Changes in feed reserves	220	—519	—355	?

* August 1 crop estimates.
† Estimates of probable feed.

of corn, oats, and barley were shipped off Minnesota farms for feeding in other states or for food and industrial uses. The remaining quarter million tons were added to feed reserves. During the feeding season starting October 1, 1941, feed requirements in the state were 25 per cent higher than during the previous five years. The increase in production was only one quarter as large as the increase in feed consumption. In spite of reduced sales of grains, it was necessary to draw about one half of the increased feeds from accumulated reserves. During the current feeding season (October 1, 1942, to October 1, 1943) feed requirements increased by another 20 per cent. It has again been necessary to draw on feed reserves, although bumper crops, especially of oats, in 1942 made it possible to continue to ship grains to other states and to industrial users.

Livestock Production Increasing

Livestock production is still increasing. Feed needs during the coming feeding season will be larger than during the past season. If hogs are fed out to the same weight as during the past year and the present rate of feeding of other livestock continues, feed needs alone will equal this year's production on the basis of August 1 crop estimates. Weather conditions during August and September may change this relationship. This will leave no surplus to sell. Since industrial users and farmers in deficit producing areas will need about the usual quantities of crops, some adjustments should be made. Approximately one and a half million tons should be provided. This may be obtained in one or more of three different ways. We may (1) further reduce reserves of feeds on farms in the state, (2) use feeds from other states or from stocks of feeds not on farms, principally wheat, or (3) reduce the rate of feeding.

Practically all reserves of corn, oats, and barley are held on farms. By drawing on these reserves, reducing the quantity on Minnesota farms to pre-drouth levels, slightly more than one half million tons, or one third of the total required, can be obtained. This, however, will reduce feed supplies on Minnesota farms at harvest time in 1944 to 50 bushels corn, 100 bushels oats, and 25 bushels barley per farm.

The gap still left in national feed needs by reduced sales in Minnesota can be supplied at least partially from other sources. Since feed reserves have been reduced more rapidly in Minnesota than in the nation as a whole, it may be possible to purchase a larger than usual proportion of crops from other states. Wheat reserves are still sufficiently large to permit the use of some for feed. If Minnesota farmers reduce the feed reserves on their farms to pre-drouth levels, it will be necessary to provide 25 million bushels of wheat or its equivalent in other feeds to offset the loss of sales from Minnesota.

Feeding Rate Can Be Reduced

The rate of feeding in Minnesota can be reduced to ease the situation. Some sows bred for fall farrowing can still be sold. Selling hogs at lighter weights, approximately 230 pounds average for all hogs compared with more than 250 pounds during the past year, will save about a half million tons of feed, or one third of normal crop sales. Since more feed is required to put a pound of gain on heavy than on light hogs, this change will provide more food and more profit with a limited amount of feed. Reducing poultry to the number that can be housed in properly constructed buildings without overcrowding will reduce feed requirements without a proportional decrease in egg production. Dairy cow numbers can be reduced by severe culling in areas where supplies of good roughages are short. The rate of feeding of cows can be reduced in areas where only the butterfat is used for human consumption. Cattle and lamb feeding can be materially reduced, both in numbers of animals and in degree of finish. Horses not in heavy work can be kept with little or no grain. Keeping horses fat just for the sake of appearances is an unjustifiable luxury during wartime. Feed supplies can be stretched further by using all of the best management practices that are known.

Proper governmental action can help to alleviate the feed situation. Adjusting price relationships can help to speed up the adjustments discussed above. Arrangements can be made to draw crops for industrial uses and for deficit feed areas from areas where surpluses exist and from wheat reserves here and in Canada. The feed situation can be solved. But prompt, aggressive action by farmers and governmental agencies is needed.

Relationship of Earnings to Standard of Living

TRUMAN R. NODLAND

Do farmers with high earnings enjoy a higher standard of living as evidenced by more home conveniences than farmers with low earnings? A partial answer to this question may be secured from the records of the various Farm Management Services in Minnesota. Records of home conveniences were obtained from 476 farmers in 1942; 173 of these records are from the southeastern, 230 from the southwestern, and 73 from the northwestern section of the state.

Table 1. Percentage of Farm Families Possessing Certain Household Conveniences Grouped According to Earnings

Farms grouped according to earnings	Electricity	Water piped into house	Mechanical or ice refrigeration	Septic tank	Furnace
		Southeastern Minnesota			
Highest 20 per cent	97.1	80.0	85.7	71.4	71.4
Second 20 " "	88.2	67.6	73.5	55.9	58.8
Third 20 " "	85.7	68.6	71.4	54.3	51.4
Fourth 20 " "	94.1	61.8	76.5	55.9	58.8
Lowest 20 " "	85.7	51.4	68.6	35.3	40.0
		Southwestern Minnesota			
Highest 20 per cent	93.5	65.2	97.8	65.8	58.7
Second 20 " "	84.8	47.8	86.6	54.1	47.8
Third 20 " "	97.8	48.9	84.4	52.6	54.3
Fourth 20 " "	76.1	39.1	70.4	34.3	32.6
Lowest 20 " "	80.4	39.1	63.6	44.4	43.5
		Northwestern Minnesota			
Highest 20 per cent	60.0	46.7	60.0	40.0	40.0
Second 20 " "	35.7	14.3	28.6	14.3	28.6
Third 20 " "	26.7	20.0	13.3	13.3	26.7
Fourth 20 " "	21.4	7.2	14.3	7.1	28.6
Lowest 20 " "	40.0	0	6.7	6.7	20.0

The household conveniences recorded are electricity, water piped into the house, mechanical or ice refrigeration, septic tank, furnace heating system, power washing machine, and a telephone. The proportion of the farm families having access to the first five of these items is shown in table 1 grouped according to earnings.

Availability of Current Is Important Factor

The proportion of the families possessing the individual items varied. Over three fourths of all income groups in southern Minnesota used electricity. Except for the highest income group, 40 per cent or less of the farmers in the northwestern portion of the state used electricity. There was not a very strong relationship between earnings and the use of electricity since the availability of electric current is an important factor in its use. The R.E.A. has made it possible for many homes to install this type of convenience.

A somewhat smaller proportion of the farmers had the other conveniences—water piped into the house, mechanical or ice refrigeration, septic tank, and a central heating system. In general, the farmers with the higher earnings had a larger number of these conveniences and the farmers in southern Minnesota had more of these items than those residing in the northwestern portion of the state.

Practically all of the farm families in all three of the areas studied used a power washing machine. There was not a significant relationship between earnings and the use of a telephone in southern Minnesota; 80 per cent or more in all income groups had telephones. In northwestern Minnesota, the range was from 100 per cent in the high income group to approximately 65 per cent in the low income group.

The proportion of these farm families possessing the indicated conveniences is greater than for all farmers in the state because the farmers included are above average in managerial ability and in most cases are on farms which are larger and more productive than the average of the area.

Summary of Sorghum Mill Survey

D. C. Dvoracek

Because of the rationing of sugar and the probable use of substitutes, it was deemed advisable to secure information as to the existence of sorghum mills in Minnesota. A supply of questionnaires was sent out to each county agent in the state, requesting him to send one questionnaire to each sorghum mill operator in his county to secure the necessary information. Twenty-seven county agents replied, with 16 reporting no sorghum mills and 11 reporting 23 mills. It is quite likely that the replies covered most of the mills in the state. Information on the 23 mills is summarized.

The sorghum mills reported are in Blue Earth, Brown, Isanti, Nicollet, McLeod, Meeker, Nobles, Scott, Hennepin, Waseca, and Wright counties. Seventeen of the mills were operated in 1941. The mills reported producing 20,689 gallons, or an average of 1,217 gallons per mill, in 1941. They reported capacity to produce 30,980 gallons a year if the season is favorable and the raw material is available, or an average of 1,887 gallons per mill. They operated a total of 225 days last year or an average of 13 days per mill, operating an average of 12 hours per day. A total of 592 farmers living within an average radius of 18 miles patronized these mills, or an average of 26 farmers per mill. Production per mill ranged from 47 to 5,000 gallons in 1941, and the possible production for 1942 ranged from 20 to 15,000. The number of days of operation ranged from 2 to 35. The radius of territory served ranged from one mile to 60 miles.

Of the varieties of sorghum reported grown, Early Dark Amber was the most popular, followed by Orange Cane, Light Amber, Amber, Orange Amber, Black Amber, Ames Improved Amber, Redtop, Red Amber, and Waconia Orange. A number of these names are local. The varieties that have been tried at the experiment stations and found satisfactory are as follows:

Southern and south central corn zones (area south of Twin Cities)
Waconia Orange Rox Orange

Central corn zone
Minnesota Amber

North central and northern corn zones
Minnesota and Dakota Amber

The possible increased demand for sorghum as a substitute for sugar may result in farmers growing more cane for this purpose. A complete list of mills by counties has been sent to county agents of counties reporting sorghum mills in order that growers of sorghum may know where they can get their sorghum made into sirup. The growing of cane for sorghum sirup was common a generation ago. Perhaps the present need suggests going back to that old practice.

Some mills operating in the state may not be included in this survey. It would be desirable to have information on all mills for reference to sorghum growers. Consumers of home-grown sorghum would be interested in knowing where such sorghum is available. This would ensure more complete local utilization of this product. The writer would appreciate the name and address of mill operators in counties that reported no mills.

Minnesota Farm Prices—July, 1943

Prepared by R. W. Cox and H. G. Hirsch

The index number of Minnesota farm prices for July, 1943, is 172. This index expresses the average of the increases in farm product prices in July, 1943, over the average of July, 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, July, 1943, with Comparisons*

	July 15, 1943	June 15, 1943	July 15, 1942		July 15, 1943	June 15, 1943	July 15, 1942
Wheat	$ 1.24	$ 1.24	$ .98	Hogs	$13.00	$13.50	$13.70
Corn	.94	.94	.72	Cattle	12.40	12.70	11.00
Oats	.61	.60	.40	Calves	13.40	13.60	12.70
Barley	.91	.84	.66	Lambs—Sheep	12.75	12.84	11.52
Rye	.89	.79	.49	Chickens	.21	.21	.16
Flax	2.85	2.86	2.28	Eggs	.34	.34	.28
Potatoes	1.55	1.55	1.25	Butterfat	.51	.51	.40
Hay	6.20	7.20	4.70	Milk	2.60	2.60	2.00
				Wool†	.44	.43	.39

* These are the average prices for Minnesota as reported by the United States Department of Agriculture.
† Not included in the price index number.

Barley and rye prices continued to advance considerably for the second month. The price of oats rose 2 per cent and is now higher than at any time since August, 1920. Oats seem to be overvalued, if their nutritive value is compared with that of other feed grains. The price of hay declined 14 per cent with the appearance of the new crop on the market. All livestock prices declined slightly. Livestock product prices remained unchanged. The net result of the various changes was an average decrease of 0.7 per cent over June, 1943, prices. Compared with July, 1942, all prices rose 18 per cent; crop prices increased 37 per cent, livestock product prices 27 per cent, but livestock prices only 3 per cent.

The Minnesota hog-corn and butterfat-farm-grain-ratios are lower than the 1935-39 average of the corresponding month. The beef-corn ratio is only slightly above its 1935-39 level. The present egg-grain-ratio exceeds that of July, 1935-39, by a large amount.

Indexes and Ratios for Minnesota Agriculture*

	July 15, 1943	July 15, 1942	July 15, 1941	Average July, 1935-39
U.S. farm price index	178.7	146.4	118.8	100
Minnesota farm price index	171.8	145.3	120.6	100
Minn. crop price index	160.8	117.7	91.1	100
Minn. livestock price index	163.5	159.1	121.4	100
Minn. livestock product price index	183.3	144.2	131.5	100
U.S. purchasing power of farm products	132.1	120.4	115.1	100
Minn. purchasing power of farm products	127.1	119.5	116.9	100
Minn. farmers' share of consumers' food dollar	61.6†	57.3	51.4	47.0
U.S. hog-corn ratio	12.2	16.6	14.7	11.9
Minnesota hog-corn ratio	13.8	19.0	18.0	14.3
Minnesota beef-corn ratio	13.2	15.3	15.5	12.0
Minnesota egg-grain ratio	18.2	19.8	20.3	14.4
Minnesota butterfat-farm-grain ratio	27.6	31.0	42.9	29.8

* Explanation of the computation of these data may be had upon request.
† Figure for May, 1943.

The Wheat Situation

The domestic wheat supply for the 1943-44 crop year is indicated at about 1,443 million bushels compared with 1,613 million bushels in 1942-43. This estimate includes a production of 835 million bushels and a carry-over of 608 million bushels as of July 1, 1943. Spring wheat production will approximate 301 million and winter wheat production about 534 million bushels. Compared with 1942, these estimates represent an increase of about 9 per cent in spring wheat and a reduction of 24 per cent in winter wheat production.

The domestic disappearance, which exceeded one billion bushels during the 1942 crop year, was the largest on record. While increased amounts were consumed as food and significant amounts used in production of alcohol, the large increase over 1941 was due primarily to the increased use of wheat as animal feed. Disappearance in 1943-44 is expected to be even larger than in 1942-43. It is likely that imports of wheat for feed will supplement domestic supplies.

The Commodity Credit Corporation completed 17,281 loans on 7,485,683 bushels of the Minnesota 1942 wheat crop. This amount represented about one third of the production in this state. Loans on the 1943 crop will be made on a note and chattel mortgage basis for wheat stored on farms and on a loan and note agreement for wheat stored in approved warehouses. Wheat grading U.S. No. 3 or better or grading No. 4 or No. 5 because of test weight only will be eligible for loan. The loan value will average nationally $1.22 per bushel at the farm. Individual loans will vary from this basic rate depending on the location, grade, and quality. The loan rate at Minneapolis for No. 1 dark northern spring is $1.41 per bushel or 9 cents above the 1942 rate. Seven cents per bushel storage allowance will be advanced at the time of the loan on all farm-stored wheat.

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