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FARM BUSINESS NOTES

Prepared by the Divisions of Agricultural Economics and Agricultural Extension
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Effect on Farm Earnings of Reduced Farm Prices

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Of major concern to farmers at all times is the trend and the level of agricultural prices. The level of farm prices is one of the most important factors affecting the year-to-year variations in income received by the farmer. The trend of farm prices (whether up or down) affects the prospects of future earnings. Farm incomes are highly unstable and fluctuate widely.

Most farm products are sold in a highly competitive market, with demand and supply relationships determining the prices received. The volume of production of individual farm products (especially crops) is subject to considerable variation from year to year, contributing further to fluctuations in prices of farm products.

On the other hand, prices of things bought by farmers tend to be more rigid. An important factor contributing to the rigidity of these prices is the relative inflexibility of wage rates in industry. In general, wage rates rise and fall less than prices and do not adjust as quickly to changes in demand and supply. This rigidity in wage rates is more pronounced during a period of declining prices. When demand for industrial products declines, workers are laid off and output is reduced. This adjustment of production of most manufactured products to fit the demand helps maintain prices of manufactured products at a fairly stable level. Cash farm production costs then (being largely prices paid for manufactured products and the cost of hired labor), tend also to be rigid. Consequently, when selling prices of agricultural products decline, net farm income declines even more.

This pressure on net farm income during a price decline is likely to be more intense in the future because of two important changes which have occurred in the last two decades with respect to farm production costs. First, the level of farm costs has risen markedly in the last few years. Farm production costs today are the highest in history. Many farmers now have cash farm expenses which are higher than their total gross income in previous years. Farm costs for 1948 totaled approximately 18 billion dol-

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lars, which was greater than gross farm income for any year previous to 1942.¹ Second, direct cash expenses now make up a much higher proportion of total farm costs than they formerly did.

Following World War I, many farm costs were not direct cash outlays. Horses furnished most of the power and could be raised on the farm. Much of the labor on many

farms was furnished by the operator and his family. When prices declined, it was necessary to accept less than going rates, thus absorbing part of the price decline in a lower level of living.

Since then, great strides in farm mechanization have taken place, resulting in a much higher proportion of direct cash outlays. Cash expenses for gas, oil, and repairs are necessary for modern power equipment farming. Mechanization has required a higher investment in farm machinery, the cost of which must be paid out of farm earnings. The improved farm practices widely adopted in the last few years, although highly desirable, have increased total farm costs. Items such as improved varieties of seed, chemical weed control, and wider use of commercial fertilizers are all direct cash production costs. The effect of these two changes in the farm cost picture, a higher level of total farm costs and a greater proportion of direct cash expenses, are problems with which farmers are seriously concerned when farm prices decline.

In order to illustrate more specifically the effect on farm earnings of a decline in farm prices, a comparison has been made between the actual 1948 earnings and the probable earnings with prices at 90 per cent of parity (table 1). These figures represent the average receipts, expenses, and net farm income for a group of ten farms in southeastern Minnesota in 1948.

These farms were selected from the records of cooperators in the southeastern Minnesota Farm Management Service. These farms are larger and more productive than the average in the area. Major sources of income for these

¹ *Agricultural Situation*, BAE, Vol. 32, No. 11, November, 1948.

farmers were the sale of dairy products, hogs, and poultry. It is emphasized that this illustration is not a forecast that prices will fall to support levels, nor is it to be considered an endorsement of a specific price policy for agriculture. The purpose of table 1 is merely to show the general effect of farm earnings of a reduction in farm prices, and to supply a guide to farmers analyzing their own records. Farmers, then, must make their own interpretations as to the rate and extent of any future price reductions in analyzing the effect on their own earnings.

The average net income received by these farmers in 1948 was \$10,404 (table 1). Assuming prices at 90 per cent of parity with the same output as in 1948, their net income then would average \$7,921. This represents a decline of 24 per cent in net farm income, showing the effect in the immediate future of a reduction in farm prices. Receipts for this group of farmers would decline about 17 per cent, while costs would decline only 6 per cent.

Since these calculations were made to illustrate the immediate effect, only those costs which would be reduced in a short time were adjusted downward. These include

Table 1. Comparison of Actual 1948 Farm Income with Probable Income, (Assuming Prices at 90 per cent of Parity)¹ on 10 Farms in Southeastern Minnesota

Item	Actual Value 1948	Value under ² 90 per cent of Parity
Farm Receipts		
Dairy Cattle	\$ 2274	\$ 1478
Dairy Products	5403	4710
Hogs	4075	3206
Chickens	236	227
Eggs	1137	1331
Sheep and Wool.....	326	228
Crops	2314	1772
Equipment sold	340	340
Miscellaneous	843	843
Total farm receipts.....	\$16948	\$14135
Farm Expenses		
Livestock purchased	\$ 949	\$ 654 ³
Miscellaneous livestock expense.....	213	213
Miscellaneous crop expense.....	963	915 ⁴
Feed bought	1584	1233 ⁵
Custom work hired.....	583	583
Power, machine equipment, new.....	2582	2582
Power, machine equipment, upkeep, etc.	1329	1329
New buildings	910	910
Buildings, upkeep	264	264
Hired labor	1002	1002
Taxes and general farm expense.....	628	628
Rent	213	213
Interest paid	154	154
Total farm expenses.....	\$11374	\$10680
Farm Income		
Farm receipts	\$16948	\$14135
Increase in farm capital.....	4830	4466
Total	\$21778	\$18601
Farm expenses	11374	10680
Net farm income.....	\$10404	\$ 7921

¹ Parity prices as given in *Agricultural Prices (Monthly)*, BAE, 1948.

² Assuming the same output as in 1948.

³ Cost of livestock purchased adjusted downward in same ratio as estimated decline in selling prices of livestock.

⁴ Miscellaneous crop expense reduced 5 per cent.

⁵ Cost of feed grains purchased adjusted downward to correspond with selling prices. Commercial feeds purchased reduced 10 per cent.

cost of livestock purchased, miscellaneous crop expenses (cost of seeds, mainly), and feed bought. If the trend in farm prices should continue downward for an extended period of time, some of the other costs (which are not adjusted in table 1) would also decline. Also, certain farm costs, such as the purchase of new equipment or the erection of new farm buildings, could be postponed. Certain production costs, however, are likely to remain high for a considerable period of time. Property taxes may even continue to rise when farm prices are falling. Interest and payments on indebtedness are fixed cash payments that do not fluctuate with the price level. Costs of labor and custom work hired are expected to remain high for some time.

This lag in cost rates when prices received by farmers are going down places farmers in a price-cost squeeze, depressing farm incomes even more on a percentage basis than the decline in farm prices. Farmers thus need to concentrate on cost control to produce products as efficiently as possible. The emphasis must be placed upon increasing the output per worker and reducing costs per unit of product.

While farmers today are generally in a stronger financial position than at any time previously, some farmers who have gone heavily into debt in the purchase of land and equipment or in the erection of new farm buildings will be placed in a vulnerable position if farm prices decline rapidly. Paying off indebtedness now and building up reserves from current income will strengthen the farmer's position in meeting the pressure on net farm income during periods of adverse economic conditions.

The Importance of Flexibility in Agriculture

O. B. JESNESS

Farmers are interested in both stability and flexibility. Because stability implies little or no change and flexibility suggests freedom of change, these two interests may appear to be contradictory. This, however, is not the case. The farmer is interested in stability which will reduce the hazards of farming to a minimum, but at the same time he wants to retain the flexibility in agricultural operations necessary to adapt to ever-changing conditions.

Agriculture is exposed to a variety of forces which lead to instability. Weather and disease and insect pests frequently create conditions which are beyond control or which are subject only to partial control. The farmer is faced with instability in prices and returns because of frequent changes in market conditions. The forward-looking farmer may be able to anticipate some of these changes and make certain adjustments to meet them. However, market conditions are largely outside his control. In a period of rapid expansion in activity in nonagricultural lines, such as during wartimes or in the upswing of a boom, strong demand tends to make farm prices go up faster than farm costs and farmers may find their net incomes rising. However, when the downswing gets under way, farm prices

are among the first to fall while many items of farm costs adjust more slowly. The result is that farm incomes shrink rapidly during such a period.

Farmers gain from stability of activity and employment at a high level in nonagricultural lines because this condition means a stable, strong market for farm products. Instability in production in other lines creates problems for the farmer. Relative inflexibility in many nonagricultural prices and wage rates adds to the difficulties of farmers in periods of depression.

This situation is an important factor in creating demands for programs to protect the farmer against some of the consequences of depression for which he is not to blame and to which he finds it difficult to adjust his operations.

It is not the purpose here to review the arguments for or against price supports or other specific programs intended to protect farmers against instabilities in the present-day economy. Our aim is instead to direct attention to the importance of retaining all possible flexibility in agriculture so that farmers will be able to adjust their operations to fit ever-changing conditions.

Agriculture is a dynamic industry. The farmer is affected by a host of changing conditions, many of them occurring far beyond the line fences of his farm. Migration from the old world to our shores and the development of agriculture in the new world meant that farmers elsewhere had to adjust themselves to changed conditions. When the fertile lands of the middle west were opened for settlement, the farmers of New England and the middle-Atlantic states found it necessary to adapt themselves to increased competition for markets. Growth of population and development of cities brought changes in markets to which farmers made adjustments. Improved transportation, refrigeration, processing, packaging, and other developments, together with rising levels of living, led to many changes in agriculture.

The point here is that without flexibility in agriculture, adaptation to such changes would not have been possible. In fact, it is not too much to say that many of these improvements in our living would not have been achieved if agriculture had lacked the capacity and flexibility to expand and adjust production to provide the food and raw materials needed.

For a considerable period in the development of Minnesota, wheat and other cash crops provided the best and most immediate opportunity for farmers to obtain a return. Minnesota once was a leading wheat state. In fact, its ranking as a source of wheat is of such recent date that many persons apparently still believe that this crop is the major source of income for farmers in this state. In the period of a single generation, Minnesota has shifted from primary reliance on cash crops to livestock farming. Clearly, this shift was an adjustment to developing markets, and represented a gain to the agriculture of the state. If farmers had lacked flexibility in the way in which they could use their lands, labor, and equipment, they would not have been able to adjust their operations to take advantage of these market developments. Farm income today would have been materially lower.

Technological changes are constantly taking place in farming. Corn breeding has played an important part in adapting corn to southern Minnesota conditions and in making this an important corn and livestock state. Hybrid corn has become general among corn growers in the space of a decade or so. Alfalfa and other crops have come into the farm picture. Soybeans are a relatively recent addition. Farmers have adjusted to changed requirements for such crops as flaxseed, canning crops, and sugar beets. Striking gains have been made in egg production.

The war period brought increased demands for the use of more of the food constituents of milk for human consumption, and in consequence there was a rapid expansion in the output of dry milk in the state. Many farmers adjusted from the sale of butterfat in cream to the delivery of whole milk. Flexibility made it possible for them to find replacement for skim milk for livestock feeding.

Farm machinery has played an important part in agricultural progress. Machines have replaced muscle in many operations and the farmer has been able to take care of more land and to increase his output. The replacement of animal power by mechanical power has affected land use in that it has made more land available for production for market. Again, flexibility in farming has permitted agriculture to make the adjustments to fit these developments.

Farmers have become increasingly aware of the importance of protecting the long-time value of their farms by taking steps to control soil erosion. They also are awake to the need for maintaining soil fertility at a high level as a feature of productive farming. Flexibility in land use is important if farmers are to do the best possible job of conserving soils and maintaining fertility.

The war period supplied an excellent illustration of the importance of flexibility in American agriculture. Farmers responded to the need for increased output by expanding food production very materially during a period when there was considerable movement of manpower from the land into the armed forces and nonagricultural employment. Without this expansion the war effort would have been hampered seriously and the levels of living generally would have decreased materially.

Prospects are that government programs to influence farm prices and incomes may continue in operation for the indefinite future. It is important that the need for leaving the greatest possible amount of agricultural flexibility be given due consideration in the formulation and administration of such programs. If government undertakes to hold prices at artificial levels, it will have to be given authority to enforce controls necessary to achieve that end. If production is adjusted in accordance with that of some base period of the past, some of the essential flexibility in agriculture may be lost. If detailed regulations for agriculture generally govern the specific uses to which given land may be employed, the result may be that of keeping farmers from using their resources most effectively. If this should be the result, it will lower the efficiency of farm operation and reduce farm returns. Retaining desirable flexibility in agricultural operations, therefore, should have an important place in working out future agricultural programs.

Minnesota Farm Prices for February, 1949

Prepared by W. C. WAITE and K. E. OGREN

The index number of Minnesota farm prices for February, 1949, is 226. This index expresses the average of the increases and decreases in farm product prices in February, 1949, over the average of February, 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, February, 1949, with Comparisons*

	Feb. 15, 1949	Jan. 15, 1949	Feb. 15, 1948		Feb. 15, 1949	Jan. 15, 1949	Feb. 15, 1948
Wheat	\$ 2.00	\$ 2.06	\$ 2.26	Hogs	\$19.40	\$19.80	\$21.30
Corn	.99	1.14	1.79	Cattle	17.60	18.70	19.40
Oats	.62	.70	.99	Calves	25.50	26.20	24.10†
Barley	1.09	1.24	2.07	Lambs-Sheep	20.68	21.03	19.74‡
Rye	1.18	1.43	2.03	Chickens	.250	.260	.183
Flax	5.74	5.75	5.78	Eggs	.355	.380	.381
Potatoes	1.50	1.50	1.50	Butterfat	.69	.70	.93
Hay	16.60	16.80	16.00	Milk	3.05	3.20‡	4.10
				Wool†	.44	.44	.43‡

* These are the average prices for Minnesota as reported by the United States Department of Agriculture.

† Not included in the price index number.

‡ Revised.

Prices of Minnesota farm products dropped 4 per cent from January to February. This marked the seventh consecutive month in which average prices received by Minnesota farmers have declined from 2 to 6 per cent in each month. The index of prices paid, including interest and taxes, decreased 1 per cent from January to February.

All Minnesota farm commodities, except potatoes, shared in the general price decline in February. Crop prices were down 7 per cent, livestock and livestock products 4 per cent. Large price declines were registered by the feed grains—corn, oats, and barley. The mid-February corn price was 35 to 40 cents below government corn loan rates in Minnesota.

Indexes and Ratios for Minnesota Agriculture*

	Feb. 15, 1949	Feb. 15, 1948	Feb. 15, 1947	Average Feb. 1935-39
U. S. farm price index	236.3	255.5	239.9	100
Minnesota farm price index	225.7	268.1	238.4	100
Minn. crop price index	202.3	271.6	211.0	100
Minn. livestock price index	258.2	277.2	275.3	100
Minn. livestock product price index	197.7	256.0	207.3	100
U. S. purchasing power of farm products	120.4	128.6	135.5	100
Minn. purchasing power of farm products	115.0	134.9	134.6	100
Minn. farmers' share of consumers' food dollar	57.6†	60.8	61.7	48.0
U. S. hog-corn ratio	17.5	11.2	19.3	13.1
Minnesota hog-corn ratio	19.6	11.9	22.8	15.5
Minnesota beef-corn ratio	17.8	10.8	16.2	12.1
Minnesota egg-grain ratio	14.6	11.2	13.0	14.4
Minnesota butterfat-farm-grain ratio	34.9	27.2	30.8	34.2

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

† Figure for December, 1948.

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Farm Real Estate Taxes

K. E. OGREN

Average United States farm real estate tax levies in 1947 were about 15 per cent above 1946. Preliminary estimates indicate a further increase of 7 per cent in 1948 tax levies. (A large part of the taxes levied in a particular year are payable during the following year.)

Taxes per acre in 1948 are about equal to the 1921-30 average. Taxes per \$100 of real estate value, however, are 12 per cent below that 10-year period, and about one-fourth less than during the 1930's when real estate values were extremely low.

Minnesota farm real estate taxes have increased relatively more than the national average. From 1943 to 1947, the average United States tax per acre rose from \$.36 to \$.53, or 47 per cent. During the same period, Minnesota taxes increased from \$.67 to \$1.09 per acre, or 63 per cent. In 1947, 12 states had higher tax rates per acre than Minnesota, and only eight states had higher tax rates per \$100 of real estate value.

During the last four years, federal income taxes paid by United States farmers have exceeded real estate and personal property tax levies. Federal income taxes in 1947 (payable in 1948) totalled 960 million dollars; real estate and personal property tax levies equalled 700 million.

Table 1. Farm Real Estate Tax Levies, United States and Minnesota, 1925-1948

Year	Taxes per Acre		Taxes per \$100 of Value	
	U. S.	Minn.	U. S.	Minn.
1925	\$.56	\$.78	\$1.07	\$1.00
1930	.57	.87	1.30	1.45
1935	.37	.61	1.15	1.41
1940	.38	.66	1.22	1.50
1945	.41	.83	.90	1.34
1946	.46	.90	.90	1.31
1947	.53	1.09	.96	1.44
1948	.57*96*

* Preliminary estimate.

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