

**MONTHLY**

**REVIEW**

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**FEDERAL RESERVE BANK OF MINNEAPOLIS**

**MAY 1963**

# The district livestock feeding center



*This article is the seventh in a series concerning agriculture in the Ninth district. The material used as a basis for this article is taken from the research that is in progress in conjunction with the Upper*

*Midwest Economic Study. Each article discusses a particular "type of farming" area as delineated in the study. In the current issue, the economic picture in Area III is discussed.*

The Ninth district's leading farm area in terms of sales volume of farm products is Type of Farming Area III. This expanse, characterized by corn production and livestock feeding, reaches from eastern South Dakota through southwestern and southern Minnesota. Its upper boundary is what is generally considered the northern edge of the corn belt. The area is well adapted to a wide selection of crops; however, feed crops (mainly corn and oats) and soybeans dominate.

The sizable output of feed crops accounts in large measure for the marked importance of livestock production and feeding enterprises in the area. While much of the livestock is raised from birth to market weight within Area III, the region also imports from western ranges large numbers of cattle, which are then fed to the desired market weights. The area's competitive position in livestock feeding, particularly with regard to certain

sections within the area, surpasses that of any other type of farming area in the district. It approaches that of important livestock feeding sections elsewhere in the U. S.

The income received by Area III farmers from the sales of farm products accounted for an average of almost 30 percent of the district's total farm product sales during the 1954-1958 period, a larger share than any of the other type of farming areas. Among the various groups of farm products, the area accounted for the largest proportion of total livestock sales, 39 percent of the district total; poultry and poultry products sales accounted for 38 percent and crop sales for 25 percent. The area also accounted for 16 percent of the district's dairy product sales.

The topography of this area is generally level with some low, rounded hills and ridges and a few small lakes and marshes. Drainage is a prob-

lem in some sections, although most of the level land has been drained by tile and ditches. The soils are the highly productive, heavy prairie soils of the grasslands with a surface layer of black loam that varies in thickness from 10 to 15 inches on the level uplands. The average precipitation varies from 24 to 26 inches, with 80 percent of the moisture occurring in April through September. The growing season ranges from 140 days in the north to 155 days in the south.

#### Land use, farm numbers and size

Area III has shown marked stability relative to the amount of land in farms. The total in 1959 was 18.9 million acres, a figure that is only 1.5 percent

TABLE 1—PROPORTION OF FARMS IN SPECIFIED ACREAGE CLASSES, 1949, 1954, 1959, AREA III

|      | Number of farms | Less than 100 acres | 100-219 acres<br>(percent) | 220-499 acres | 550 and more acres |
|------|-----------------|---------------------|----------------------------|---------------|--------------------|
| 1949 | 93,128          | 16.1                | 44.9                       | 35.7          | 3.3                |
| 1954 | 91,761          | 15.4                | 42.9                       | 38.0          | 3.7                |
| 1959 | 86,305          | 14.2                | 38.9                       | 41.6          | 5.3                |

less than that of 1941. The proportion of farm land classified as cropland averaged close to 80 percent of total land during the past 15 years, with only slight variations from year to year. About 10 percent of the land is considered open pasture with the remaining 10 percent accounted for in woods and rough land. The characteristic feature of this area is the relatively high proportion of cropland harvested each year as compared to other areas of the district: more than three-fourths of all cropland is harvested. This high proportion is largely due to the physical characteristics of the land—the level, rolling land is well adapted to cultivated crops and, given the typical moisture situation, fallowed land is unnecessary.

The number of farms in the area declined 7.3 percent between 1949 and 1959, and totaled 86,305 in the latter year. In view of the relatively small change in the total acreage in farms and the minor

extent of farm abandonment, the change in numbers is inversely related to the change in the average size of farms. As shown in table 1, the largest increase in farm numbers took place in the 200- to 500-acre farm size category with a corresponding drop in the proportion of farms of smaller size. In 1959, the average farm size was 219 acres, up from 207 acres in 1954. The average size farm tended to get progressively larger from southeast to northwest across the area.

Of perhaps greater economic significance than the drop in farm numbers is the change in composition of farm groupings according to specified sales volumes. Such a classification shows a decided shift toward larger numbers of farms into

TABLE 2—PROPORTION OF FARMS IN SPECIFIED SALES VOLUME GROUPS, 1949, 1954, 1959, AREA III

|      | Group I | Group II<br>(percent) | Non-commercial |
|------|---------|-----------------------|----------------|
| 1949 | 21.0    | 63.8                  | 15.2           |
| 1954 | 24.7    | 60.3                  | 15.0           |
| 1959 | 34.3    | 52.1                  | 13.6           |

the Group I category (farms with sales of farm products of over \$10,000), a shift which has occurred largely at the expense of the proportion of farms in Group II (those with sales of \$2,500 to \$10,000). The proportion of noncommercial farms (sales of less than \$2,500) has also experienced a decline. Thus, there has been a considerable adjustment in farm size and operation toward increasing output of farm units. The average size in acres of these farms in 1954 was: Group I, 296 acres; Group II, 201 acres; and noncommercial, 84 acres. The relatively high proportion of Group II and noncommercial farms, however, is an indication that the trend toward fewer and larger farms will continue.

#### Cash receipts and farm production

Receipts from the sales of farm products amounted to just over \$1 billion in 1958. Live-

**TABLE 3—CASH RECEIPTS BY SOURCE, AREA III**

| Year | Crops | Livestock<br>(percent of total) | Dairy<br>products | Poultry<br>products |
|------|-------|---------------------------------|-------------------|---------------------|
| 1939 | 41.0  | 37.3                            | 13.6              | 8.0                 |
| 1944 | 22.2  | 49.9                            | 12.2              | 15.6                |
| 1949 | 31.4  | 49.4                            | 8.6               | 10.5                |
| 1954 | 38.5  | 45.0                            | 8.3               | 8.0                 |
| 1958 | 33.1  | 51.3                            | 7.1               | 8.5                 |

Basic data source: Census of Agriculture and United States Department of Agriculture reports.

stock sales accounted for about 51 percent of the total with cattle and calf sales just outranking hog sales; together the two accounted for almost all of the livestock sales. Total crop sales accounted for another 33 percent of cash receipts with corn sales most important, followed by soybeans and flaxseed; poultry products sales at 8.5 percent of total sales ranked just ahead of dairy product sales. Over the past 20 years considerable shifting has occurred in the relative importance of the various sources of cash receipts. In particular, there has been a general shift from crop production to livestock production.

Some differences existed both among the economic classification of farms and the geographic location as to the relative importance of the various sources of income. Generally, the farms in the southwestern and southcentral part of the area placed more emphasis on livestock production as a source of income, while dairying was more important in the northeastern and eastern sections. Crop sales were relatively more important than livestock in the northern part of Area III. Among the economic groupings, the Group I commercial farms received a greater relative share of their cash receipts from the sales of cattle and calves, while sales of dairy products were relatively greater on Group II farms. The Group II farms also tended to receive a slightly greater proportion of cash receipts from the sales of crops than Group I. Non-commercial farms received a larger proportion of their cash receipts from the sale of livestock and livestock products than either of the groups

under the commercial classification.

While much of the feed grain production is utilized on the farms as livestock feed, it is interesting to note the relative importance of crop sales, particularly corn, as a source of income. Over the period 1954-1958, crop sales accounted for 30 percent of the total cash receipts on Group I farms and 35 percent on Group II farms. Corn sales alone accounted for 13 and 14 percent, respectively. In terms of physical volume, the Group I farms sold almost 50 percent of the total corn production while Group II farms sold 38 percent over the five-year period. This occurred in spite of the fact that it is generally considered more profitable to market feed grains in the form of livestock products. This observation is perhaps more significant in the case of the Group II farms. These farms in other areas of the district typically emphasized livestock production to a greater extent than Group I farms in an attempt to diversify their operations in order to maximize incomes from their smaller land resources. The conversion of greater amounts of these feed grains into the more profitable livestock products at the point of production might indicate a possible avenue toward larger farm incomes throughout Area III.

A shift toward livestock was noted in the relative importance of livestock as a source of cash receipts noted above. Another source of evidence is in the upward trend in livestock numbers that has been occurring over the past 20 years. The most notable increase has been in the number of hogs, which has increased almost three times since 1939. The total number of cattle and calves has also increased significantly in spite of a decline of one-third in the number of milk cows between 1939 and 1959, indicating a decided increase in beef stock.

The decline in farm numbers taken together with an increase in animal numbers indicates a large increase in the number per farm. This is shown in table 4 for farms reporting the various classes. The table does not represent the average for all farms in Area III.

**TABLE 4—NUMBERS OF LIVESTOCK PER FARM, 1939, 1944, 1949, 1954, 1959, AREA III**

|      | Cattle and calves           | Milk cows | Hogs | Sheep and lambs | Chickens |
|------|-----------------------------|-----------|------|-----------------|----------|
|      | (number per farm reporting) |           |      |                 |          |
| 1939 | 21                          | 9         | 18   | 29              | 133      |
| 1944 | 27                          | 8         | 31   | 49              | 204      |
| 1949 | 22                          | 8         | 40   | 40              | 194      |
| 1954 | 31                          | 9         | 62   | 54              | 264      |
| 1959 | 38                          | 11        | 75   | 65              | 304      |

Basic data source: Census of Agriculture.

The average acreage devoted to various crops is influenced by physical and economic conditions, including government programs. Yields per acre are dependent not only on soil and climate, but also on management practices such as the adoption of improved varieties and the use of fertilizer.

Although the cropping pattern varies within the area, about the same pattern prevails on both groups of commercial farms and to a lesser degree on noncommercial farms. The crops of most importance as indicated by the proportion of cropland devoted to them are corn, oats and hay; wheat and barley are of minor importance. The relative importance of soybeans varies greatly. The proportion of crop acreage on commercial farms in soybeans ranges from 3.7 percent in the western part of the area to 21.5 percent in the eastern. The variation in the proportion of cropland in flaxseed also is wide, ranging from .3 percent in the southern part to 14.6 percent in the northern sections.

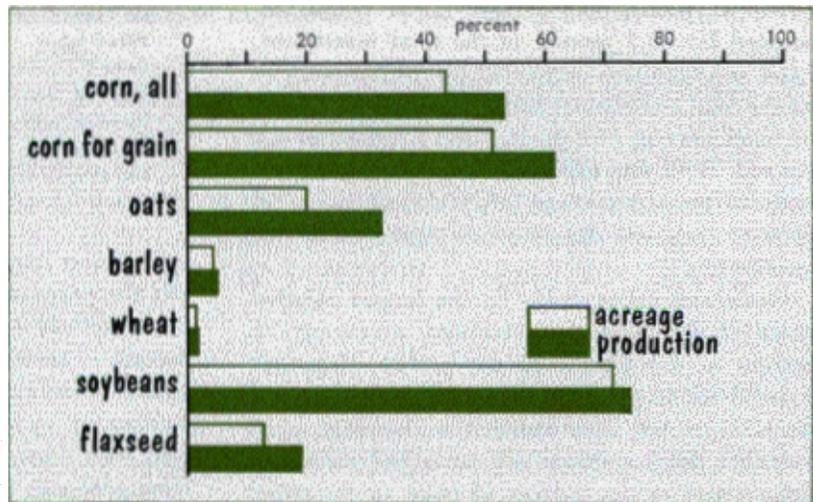
Corn and soybeans in Area III outrank all other crops relative to the contribution to both acreage and production in the district. This relative importance is shown in chart 1.

The yields per acre of various crops on com-

mercial farms vary greatly throughout the area; for example, the yield of corn for grain ranged from 32.7 bushels per acre in South Dakota to 63.9 bushels in southern Minnesota. The variation in yield of oats was another example, as it ranged from 28.1 bushels in the western part of the area to 50 bushels in the east. In general, the yields per acre of the major crops are higher in southern Minnesota than in any other part of the area.

Marked differences prevail between yields of commercial and noncommercial farms, and also between Group I and Group II farms. In Area III, yields of corn for grain averaged 49.8 bushels on commercial farms or about 30 percent higher than the 38.2 bushels on noncommercial farms. Soybeans averaged 19.9 bushels on commercial

**Chart 1—Acreage and production: percentage of Area III to district, 1954-1958 average**



farms compared with 15.7 bushels on noncommercial farms. Yields of corn for grain on Group I farms averaged 14.5 percent higher than yields on the Group II farms.

The superiority of yields on Group I farms was due to several factors; probably the most important of which was better management practices. Also, the producers in this group had fewer capital

restrictions and were in a better position to put recommended practices into effect.

Many farms in this area are producing yields of corn of around 100 bushels per acre. Yields of this amount are not possible without heavy fertilization applications, control of weeds and a bundle of other practices which are necessary to efficient farm management. The potentialities of increasing yields in this area, however, are great for the average farmer, not only for corn but also for soybeans and other crops.

### Capital investment

The total capital investment in land, buildings, livestock and machinery averaged \$3,728 million over the 1954-1958 period. Of this total, 93 percent was invested by commercial farms. Group I farms, which represent 24.7 percent of all farms, controlled 39.4 percent of the total investment; the Group II farms, 60.3 percent of all farms, accounted for 53.7 percent of the total investment. Land and buildings accounted for 75.7 percent of all the total commercial farm investment, followed by machinery at 14.8 percent and livestock at 9.5 percent. With few exceptions, the relative importance of these items was fairly uniform with regard to economic classification of the farm and location.

Cattle and calves made up the largest relative share of the livestock investment, averaging 70 percent of the total over the period. Hogs accounted for 26 percent of the total and other livestock, 4 percent. This distribution, however, may overstate the importance of cattle and calves to some extent as the number of hogs on farms on January 1, the date used in determining livestock investment, is much lower than later in the season.

The investment in machinery per crop acre was highest on the noncommercial farms, averaging \$44.72 per acre over the 1954-1958 period. The corresponding investment on the Group I and Group II commercial farms was \$36.67 and \$35.26, respectively.

On an average, the Group I farm represented

an average investment of \$64,636 over the study period. The Group II per farm investment averaged \$36,222 per year, and the noncommercial farm had an average investment of \$18,726 per year.

### Production expenses

Total farm production expenses in Area III averaged \$556 million per year over the study period. Cash farm expenses accounted for about 81 percent of the total with depreciation charges for machinery and buildings making up the remaining 19 percent.

TABLE 5—PRODUCTION EXPENSES—RELATIVE IMPORTANCE OF SELECTED ITEMS, BY GROUPS OF FARMS, 1954-1958, AREA III

|                     | All farms | Group I | Group II | Other farms |
|---------------------|-----------|---------|----------|-------------|
|                     | (percent) |         |          |             |
| Production expenses | 100.0     | 100.0   | 100.0    | 100.0       |
| Cash farm expenses  | 80.9      | 83.7    | 79.1     | 74.2        |
| Hired labor         | 3.9       | 5.5     | 2.6      | 2.4         |
| Feed                | 18.3      | 21.5    | 15.9     | 14.8        |
| Gas, oil, etc.      | 9.3       | 8.1     | 10.4     | 9.2         |
| Fertilizer and lime | 3.2       | 4.3     | 2.4      | 1.5         |
| Machine hire        | 2.9       | 2.4     | 3.3      | 3.3         |
| Other cash expenses | 43.3      | 41.9    | 44.5     | 43.0        |
| Depreciation        | 19.1      | 16.3    | 20.9     | 25.8        |

The most important single item of cash expense was the purchase of feed. This expense, however, was relatively higher on the Group I farms, 22 percent of total production expenses, than on the Group II and noncommercial farms which had an average of 16 and 15 percent, respectively. The next most important cash expense item was petroleum products, while cost of hired labor was relatively low (table 5).

Depreciation expenses ranged from 25.8 percent of total production expenses on noncommercial farms to 21 percent on Group II farms and 16 percent on Group I farms.

### Labor utilization

The effective use of farm labor, as measured by standard labor requirements for various farm operations, indicates that one of the major prob-

lems in the area is the adjustment of the farm labor force to changing farm operations. Over all, about 67 percent of the area's labor devoted to farm activities was effectively utilized. The relevant figures for Group I, Group II and noncommercial farms were 76 percent, 69 percent and 34 percent, respectively.

While these figures are about the average for all farms in the Ninth district, it could well be expected that in an area of mixed livestock and crop production, the seasonality factor in labor use would be relatively minor and a rather high rate of utilization would occur. Part of the explanation of this lies in the fact that the farm units in the area are generally self-sufficient in terms of labor supply with the farm operator himself supplying a large proportion of the annual labor. Thus, it is likely

that some of the apparent inefficient use of labor is unavoidable. On the other hand, however, much of the available labor could have been better utilized if it had been expended on larger and more modern units. If Area III is to achieve the optimum utilization of its farm labor force, migration from the farm may occur at an increasing rate. More effective use of labor along with other observed economies associated with larger units is a major force that accounts for the trend toward fewer and more productive farms.

#### Farm income

Area III farmers received an annual average gross income of \$985 million over the 1954-1958 period. Commercial farms received 97 percent of the total with Group I farms accounting for 51

Chart II—Per farm gross income, expenses and net income, 1954-1958 average, Area III

|  | All Farms                 | Group I                   | Group II                 | Non-Comml.                |
|--|---------------------------|---------------------------|--------------------------|---------------------------|
| Cash receipts from farm mktgs.                     | 9930 <sup>00</sup>        | 21074 <sup>00</sup>       | 7329 <sup>00</sup>       | 1749 <sup>00</sup>        |
| Government payments                                | 106 <sup>00</sup>         | 158 <sup>00</sup>         | 101 <sup>00</sup>        | 43 <sup>00</sup>          |
| Noncash income                                     | 699 <sup>00</sup>         | 823 <sup>00</sup>         | 658 <sup>00</sup>        | 657 <sup>00</sup>         |
| Gross farm income                                  | <u>10735<sup>00</sup></u> | <u>22055<sup>00</sup></u> | <u>8148<sup>00</sup></u> | <u>2449<sup>00</sup></u>  |
| Cash expenses                                      | 4906 <sup>00</sup>        | 9099 <sup>00</sup>        | 4038 <sup>00</sup>       | 1474 <sup>00</sup>        |
| Depreciation                                       | 1161 <sup>00</sup>        | 1777 <sup>00</sup>        | 1069 <sup>00</sup>       | 512 <sup>00</sup>         |
| Production expenses                                | <u>6067<sup>00</sup></u>  | <u>10876<sup>00</sup></u> | <u>5107<sup>00</sup></u> | <u>1986<sup>00</sup></u>  |
| Net income   | 4668 <sup>00</sup>        | 11179 <sup>00</sup>       | 3041 <sup>00</sup>       | 463 <sup>00</sup>         |
| Estimated costs of capital<br>and operator's labor | 4210 <sup>00</sup>        | 5470 <sup>00</sup>        | 4028 <sup>00</sup>       | 2862 <sup>00</sup>        |
| Returns to management                              | <u>458<sup>00</sup></u>   | <u>5709<sup>00</sup></u>  | <u>-987<sup>00</sup></u> | <u>-2399<sup>00</sup></u> |
| Net cash income                                    | 5130 <sup>00</sup>        | 12133 <sup>00</sup>       | 3452 <sup>00</sup>       | 318 <sup>00</sup>         |

percent and Group II, 46 percent. Cash farm receipts averaged just over \$911 million. They were supplemented by direct government payments averaging about \$10 million and by noncash farm income that averaged \$64 million over the period and represented produce used in the farm home and the rental value of dwellings. Production expenses averaged \$557 million with a residual of about \$428 million representing the realized average annual net farm income for the period. The net farm income was distributed 60 percent, 39 percent and 1 percent among the Group I, Group II and noncommercial farms, respectively.

Per farm incomes for each economic grouping are shown in chart 2. While this chart indicates the average incomes per farm during the study period, it also points out the more important differences among the categories in terms of earning power. The most significant difference as far as agriculture is concerned is the gap that exists between the Group I and Group II commercial farms, both of which are primarily dependent on farming for income. The average Group I farm achieved a net income level over the period of 3.7 times that of the Group II farm.

The income advantage of the Group I farm with its greater resource base can be illustrated by examining the efficiency with which the various farm inputs are utilized. For example, the return a farmer earns for his time and effort in managing his unit can be estimated by deducting an assumed capital cost (5 percent of the invested capital) and the value of the farmer's labor (assumed to be equal to the hired farm labor wage rate) from net income. The computed return to management amounted to \$5,016 on the Group I farm, while the net income on the Group II farm was not sufficient to repay all the estimated cost of the farmer's labor and capital. In effect, the average Group II farmer would have been better off economically had the capital been invested elsewhere and he worked as a farm laborer. While such a difference between farm groups might in some cases reflect the differences in managerial ability of the farm

operators, it is more likely a reflection of the inadequacy of the resources that the smaller farm operator has at his disposal.

Another way to measure this difference between the groups can be made in terms of gross income per dollar of input. To summarize the total inputs on an annual basis, the capital costs and an alternative wage cost of the operator's labor were added to production expenses. In the case of the Group I farm, \$1.00 of total inputs generated about \$1.35 in gross income. On the Group II farm, the \$1.00 of inputs returned only \$.89 in gross income (table 6).

TABLE 6—ANNUAL AVERAGE PER FARM TOTAL INPUTS, GROSS INCOME AND NET INCOME, AREA III, 1954-1958

|              | Group I  | Group II | Ratio of Group I<br>to Group II |
|--------------|----------|----------|---------------------------------|
| Total inputs | \$16,346 | \$9,134  | 1.79                            |
| Gross income | 22,054   | 8,148    | 2.71                            |
| Net income   | 11,178   | 3,041    | 3.68                            |

The net cash income of a farm is a useful indicator of the viability of the farm. It is from this source that the farmer must provide for his family, replace capital and retire debt. When the net cash income falls to low levels, family living expenses are difficult to maintain and capital equipment often cannot be replaced. A farmer in this situation is likely to be forced to seek alternative means of earning a livelihood. This shift out of farming is a slow process, given the nature of the capital depletion and the level of living the individual considers adequate. An uneconomic unit may be maintained for a long time. Eventually, however, farmers with low net cash incomes and poor prospects of improving their position will move out.

The average net cash income for farming on Group II farms amounted to \$3,452 over the 1954-1958 period, a figure hardly sufficient to encourage continued farm operation. Since these farms account for about 60 percent of all farms and 62 percent of the farm land in Area III, it appears that farm consolidation will continue and perhaps even be accelerated in the near future.

### Off-farm income

As is true throughout the Ninth district, Area III farmers supplement farm incomes with earnings from off-farm work. While data were not available as to the absolute amounts earned in this manner, it is possible to get a general idea of the importance of this source of income from the 1954 census data. At that time, 31.1 percent of all the farm operators in the area spent some time on off-farm work, although only 6.3 percent were employed 100 days or more per year in that manner, and 4.8 percent had greater earnings from that source than from farm operations. The operators of the noncommercial farms, of course, were more dependent on this source of income, although only 16.2 percent actually were reported to be working off the farm and a little over one-fourth earned more income from off-farm work than from farm sources (table 7).

The amount of off-farm work performed by the commercial farmers was not as significant, as can be seen in the relatively few operators in that group working off the farm 100 days or more.

### Summary

Area III is a highly productive region that specializes in feed grain production and livestock feeding. The area receives almost 30 percent of the district's total cash farm receipts. This income amounted to over \$1 billion in 1958. The area accounts for 25 percent of the district's crop sales, 38.9 percent of the livestock sales and 37.6 percent of the poultry sales. Cattle and calves are the important sources of income, followed closely by hogs. Among the crops the cash sales of corn ranked first, followed by soybeans and flaxseed. While the sale of all crops accounted for almost one-third of the total cash farm income over the 1954-1958 study period, there has been a decided shift toward greater emphasis on livestock production over the past few years.

Farm numbers have been declining and in 1959 numbered 86,305. With the diminishing numbers, however, there has been an adjustment in terms of

an upward movement in the relative number of farms in the larger acreage classifications and volume of sale categories. The future is likely to see the same trend toward fewer and larger farms since there remains a relatively large number of small farms.

The reasons for farm size adjustment are amply illustrated in differences that exist among farm

TABLE 7--OFF-FARM EMPLOYMENT OF FARM OPERATORS, AREA III, 1954

|               | Working off-farm | Working off-farm 100 days or more (percent of operators) | With off-farm income greater than farm income |
|---------------|------------------|--|---|
| All farms     | 30.1             | 7.1  | 5.7   |
| Group I       | 27.9             | 2.2  | 1.1   |
| Group II      | 27.3             | 4.4  | 2.4   |
| Noncommercial | 46.2             | 27.5   | 26.8  |

Basic data source: Census of Agriculture.

groups with the distinct advantage in terms of production and income accruing to the Group I farms. Thus, it would appear that the best possibility of achieving greater farm incomes lies in expanding and reorganizing farm operations. In Area III, the data indicate that size alone is not the only answer to higher farm incomes. An alternative for the owner of a small land resource could be through a more intensive livestock operation. This, of course, means farm expansion in terms of capital and not necessarily land, and it probably implies a greater use of credit.

The future of agriculture in Area III is seen as optimistic. Its major output, livestock, enjoys a preferred place in consumers' preference patterns. Soybeans, a crop well suited to much of the area, also faces a future of increased demand and use. The adjustments that are suggested in this report are not new. They have been taking place for some time due to the technological change that has taken place and which will continue to occur in farming. The need is to recognize and adapt to changes to insure that the area will continue to maintain its economic growth.

# Current conditions . . .

**G**rowth in district personal incomes slowed during January and February due, perhaps, to the severe winter weather. Nevertheless, the overall level of personal incomes continues to exceed the year earlier figures by approximately 5 percent. With employment increasing and with higher weekly earnings, current prospects for continuing growth in personal incomes appear optimistic.

During the recent winter months, nonagricultural employment actually held up a little better than normal, with manufacturing employment in durables particularly high. The adjusted index of industrial use of electric power also indicates a rise in the output of manufactured products since the first of the year. Retail sales have expanded with automobile sales especially strong. March department store sales hit a new high with continuing strength in April, and bank debits during the first quarter averaged 6 percent above year earlier figures.

In agriculture, the current situation is influenced by high levels of livestock and grain inventories on farms and by substantially lower prices for hogs and cattle. Cash farm incomes since the first of the year are apparently following a normal seasonal pattern, but incomes are running substantially above year ago levels because of increased marketings from the larger inventories. Current crop prospects are reported good, based on generally favorable surface and subsoil moisture conditions at the start of the 1963 crop season. Winter wheat has survived with a minimum of "winter kill" and adequate feed supplies and an open winter have brought livestock through the winter in excellent condition. Retail sales of

farm machinery and equipment are reported relatively high in most of the Ninth district, particularly in the west, where crops were especially good last year. The large volume of credit extended in country banks during March reflects confidence in future economic conditions in the rural areas.

Total district bank credit has continued to expand on a seasonally adjusted basis with, as noted above, a particularly strong trend noted in bank loans at country banks. Seasonally adjusted deposits have risen with time deposits at all member banks about 17 percent above year ago levels. Although only a few banks have found it necessary to borrow at the Federal Reserve, in recent weeks the number has increased. Purchases of federal funds have also exceeded sales by a large margin.

*The following selected topics describe particular aspects of the district's current economic scene:*

## **SPRING PLANTING INDICATIONS**

The March crop report has indicated that Ninth district farmers intend to increase the planted acreages of most crops this spring. The largest gain will occur in spring wheat acres if farmers carry out their intentions. A rise of 14 percent over last year in planted acres is expected for that crop with the most significant relative increase occurring in South Dakota. Corn acreages are expected to be up in both South Dakota and Minnesota, which would raise the total district corn acres to almost 11 million acres, or an increase of 1 million acres from 1962. Slight increases are expected in the acreages planted to flax and soy-

beans, while barley and oats planting intentions show a moderate decrease from last year. The expected acreage of durum wheat is down 12 percent from the 1962 total.

Over 160 thousand district farmers, or 56 percent of all farmers eligible, were attracted by the 1963 feed grain program, as these farmers signed up to divert some 4 million acres from feed grain production. That figure represents about 18 percent of the total base feed grain acreage

**TABLE 2—FEED GRAIN ACREAGE DIVERSION,  
1963 FEED GRAIN PROGRAM**  
(1,000 acres)

|               | Base feed grain<br>acreage | Intended<br>diversion | Percent<br>intended<br>of total |
|---------------|----------------------------|-----------------------|---------------------------------|
| Minnesota     | 8,631                      | 1,754                 | 20.3                            |
| Montana       | 2,208                      | 330                   | 14.9                            |
| North Dakota  | 6,121                      | 1,078                 | 17.6                            |
| South Dakota  | 5,840                      | 874                   | 15.0                            |
| 4 States      | 22,800                     | 4,036                 | 17.7                            |
| United States | 162,253                    | 25,676                | 19.4                            |

**TABLE 1—1963 CROP ACRE PLANTING INTENTIONS AS A PERCENT OF 1962 PLANTED ACRES**

|               | Spring<br>wheat | Durum | Corn | Oats | Barley | Flax | Soybeans |
|---------------|-----------------|-------|------|------|--------|------|----------|
| Minnesota     | 117             | 126   | 109  | 98   | 95     | 105  | 105      |
| North Dakota  | 108             | 89    | 97   | 103  | 106    | 106  | 160      |
| South Dakota  | 125             | 79    | 112  | 99   | 87     | 96   | 118      |
| Montana       | 118             | 80    | 83   | 90   | 91     | 91   | —        |
| 4 States      | 114             | 88    | 109  | 99   | 99     | 104  | 107      |
| United States | 111             | 88    | 106  | 95   | 95     | 103  | 104      |

(1959-1960 average plantings) in the district. About 60 percent of the eligible farmers in Minnesota have signed up this year, while only one-third of the eligible farmers in Montana have showed the same interest. Nationally, a little less than 40 percent of all eligible farmers have agreed to divert crop land from feed grain production. The largest relative amount of land diversion in the district has occurred in Minnesota, followed by North Dakota, South Dakota and Montana (table 2). Under the 1963 program, farmers who participate must divert all the acreage signed up to be eligible for price support or acreage diversion payments. Last year farmers were eligible even though their actual diversion was less than the amount signed up.

It is estimated that the diversion payment from the feed grain program will amount to a little over \$46 million in the district. The distribution among the states is expected to be: Minnesota, \$29 million; South Dakota, \$8 million; North Dakota, \$7 million; and Montana, \$2 million.

## RETAIL SALES HIGH

A bright spot in district economic development has been the high level of retail sales maintained during the winter and early spring. Sales were not depressed by the severe winter weather as much as preliminary estimates had indicated. Furthermore, the exceptionally mild weather in March and in the first half of April noticeably boosted pre-Easter sales in some lines of merchandise.

Department store sales account for a small part of total retail sales but they represent a substantial segment of the discretionary consumer purchases, those that are postponable. Consequently, the trend in these sales is often indicative of changes occurring in consumer buying in general.

District department store sales rose to a record high in March along with an apparent rise in other lines of retail sales. The preliminary seasonal index rose to 114 percent in March from 113 percent in February (1957-1959=100). A previous high of 111 percent was reached in sev-

eral months of 1962. According to weekly sales in Minneapolis, St. Paul, Duluth and Superior, the high volume continued through the first half of April.

Sales of new automobiles have been at an exceptionally high level in the district. Beginning last October, sales have maintained a volume relatively higher than the nation according to the percentage increase in registration from a year ago. High car sales reflect, in particular, the rise in farm income following the harvesting of near record crops last year.

Although there is a considerable time lag before the estimates become available, the Bureau of Census' sample of sales by retail stores, which excludes sales in large retail chains, is the broadest coverage available for the district. In both January and February, seasonally adjusted sales in this group of stores in the district remained at the high level reached in November and December of last year. Compared with a year earlier, sales were up 9 percent and 8 percent, respectively.

A breakdown of sales into broad categories indicates that sales at eating and drinking places in both January and February fell below the year ago volume. In all other categories, despite the severe weather, sales were up significantly in some lines. For instance, in lumber, building materials, hardware and farm equipment, sales increased 36 percent in January and 15 percent in February from a year earlier.

Total retail sales in the nation, on a seasonally adjusted basis, rose to a new high of \$20.7 billion in March, about 1 percent above the total for February according to the advance report of the U. S. Department of Commerce. Adjusted total sales for February were revised upward, so the new total is 1 percent above January. Thus, March sales were 2 percent above the November-January plateau.

March sales in the U. S. rose sharply at department stores and increased at some other outlets that sell primarily nondurable goods. Deliveries of new cars to dealers remained at the advanced

rate of recent months, and sales of other durable goods rose above previous levels.

Total sales in all U. S. retail stores during the week ending April 13 were 11 percent above the comparable week last year, according to the Bureau of Census' weekly retail sales report. The year-to-year increase for the four weeks ending April 13 was 8 percent, with both durable and non-durable goods stores showing gains.

## CATTLE AND CALVES ON FEED

The April 1 report of cattle on feed indicates that there were 993 thousand head on Ninth district feedlots. This total represents an increase of 12 percent over the number on feed a year earlier. The April 1 estimate, however, was down about 4 percent from the January 1, 1963 total.

### CATTLE AND CALVES ON FEED\*

|              | (1,000 head)  |              |               | April 1, 1963                 |
|--------------|---------------|--------------|---------------|-------------------------------|
|              | April 1, 1962 | Jan. 1, 1963 | April 1, 1963 | as a percent of April 1, 1962 |
| Minnesota    | 430           | 497          | 473           | 110                           |
| Montana      | 47            | 71           | 56            | 119                           |
| North Dakota | 105           | 161          | 150           | 143                           |
| South Dakota | 305           | 332          | 314           | 103                           |
| 4 States     | 887           | 1,061        | 993           | 112                           |
| 28 States**  | 7,321         | 8,998        | 8,105         | 111                           |

\*Cattle and calves on feed are animals being fattened for the slaughter market on grain or other concentrates which are expected to produce a carcass that will grade good or better.

\*\*Includes the major feeding states for slaughter cattle.

Total marketings of fed cattle for slaughter during January through March were 3 percent higher than for the same period in 1962. In several states some cattle were taken off feed and moved back to pasture. Marketings during the April-May-June period of this year are expected to be 7 percent greater than during the same period last year. This would mean that about 30 percent of the cattle now on feed will move to markets by July 1 with the remaining 70 percent to be marketed sometime after that date.