## CHAPTER Where Should You Farm?

## OST MEN START FARMING NEAR

 the place where they grew up. Usually this is best because they already know many of the things important to success in their own community. They can more easily use the "pool of common farming knowledge" accepted by farmers in each locality. They also can get counsel and suggestions easily from competent local farmers.Most young men probably know something about the variations in farms and soils in the community, and the crops adapted to them. They also will have a fair idea of how the more successful farms are operated.

Normally they have acquired a certain standing in business affairs. Their skills, habits of work, and thrift are known. If they show promise as farm operators, responsible people in the community will give them help. People always like to see their energetic young men get started in business for themselves.

## Opportunity-Nearby or Far Away?

Most people expect to find opportunities when they move to a new community. This is an American tradition. In pioneer days new farming opportunities always were open and still are for those who have ability and really want to start in a new community. But persistence is needed.

Before deciding upon a certain community, the young man can look around a bit by getting a job as a farm hand in the area that seems interesting to him. He can learn about farming methods there and, if he works for a skillful farmer, also can pick up ideas that will help him later on. Such training and experience should pay good dividends.


Fig. 4-Average annual precipitation. Rainfall varies greatly in the Midwest. Crop yields are usually higher and more dependable east of the 25 -inch rainfall line, and a greater variety of crops can be grown. Bureau of Agricultural Economics and the Weather Bureau.

In the Midwest-the North Central States-the different areas relate to each other in certain respects, and many local variations make for success in each of them. Variety always is found in farming, sometimes within a few miles. Usually, though, the kind of farming that is most successful falls into a few typical patterns in any given area.

## Four Main Farming Areas

Climate and soil variations separate the Midwest into four natural divisions. These are:

The Corn Belt. More accurately, this is the feed grain and livestock belt.

The Dairy Area. This extends along the northern border of the Corn Belt.

The General Farming Area. A less fertile area to the south of the Corn Belt.

The Wheat and Grazing Area. This is part of the Great Plains that borders the Corn Belt on the west.


DAYS


Under 90
90-119
120-149
阫分150-179
180-209
210-239

Fig. 5-Average length of frost-free season. The kinds and varieties of crops must be adapted to the growing season which varies more than 60 days in length in different parts of the Midwest. Bureau of Agricultural Economics.

Although the farming pattern is somewhat similar in each of these broad areas, successful farmers fit their farming plans to natural local conditions.

## Climate-Many Midwest Variations

The amount and dependability of rainfall and length of growing seasons vary greatly in the Midwest. Farm plans, therefore, must be made with climatic conditions in mind. Figure 4 shows how rainfall varies over the North Central States.

In the Plains States to the west annual rainfall is 20 inches or less and most of it falls during the growing season. Year to year variations in rainfall are great, making dry seasons quite common, especially in the extreme west.

In states east of the Plains Area, more rain falls, but in the southern part of these states late summer drouths are more frequent and often interfere with late maturing crops. The need for rain may vary because of soil differences and crops grown.

Western Nebraska has a small irrigated area where farming is very different from that a few miles away. The Flint Hills in east central Kansas differ from the area on either side because of major soil differences. Other specialized areas are broad Red River Valley between Minnesota and North Dakota, the fruit growing section on the east shore of Lake Michigan, the cherry growing county in northeast Wisconsin, and so on. Each of these varies according to local climatic or soil conditions and each differs to a greater or lesser degree from the general pattern of the area around it.

A farmer who lives near the Canadian border can count on a frost-free growing season of only three or four months. But in the southern part of the Midwest states and in some areas along the Great Lakes, farmers can plan on frost-free seasons of six months or more. The longer growing season gives them many more choices in their cropping program and a much shorter feeding season for their livestock.

Around a city the farms produce such bulky products as whole milk or fresh vegetables. In small areas where such unusual soil conditions exist as peat, muck, bog, or sand, the farming will differ radically from that in surrounding areas because only certain kinds of crops are adaptable to those soils.

## Differences in Gross Incomes, Costs

Type of farming, size, and tenure conditions also differ in various Midwest areas, as well as productivity of the land and intensity of production. These differences have some bearing on the choice of a location. A potential farmer needs a reasonably

TABLE 4
Gross Income and Farm Expenses Per Acre of Crop Land Harvested-By Areas, Recent Years

| Area | Gross Income |  | Farm Expenses |  | Remainder |  | Expense to Income |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 1939- \\ 40 \end{gathered}$ | $\begin{gathered} 1943- \\ 44 \end{gathered}$ | $\begin{gathered} 1939- \\ 40 \end{gathered}$ | $\begin{gathered} 1943- \\ 44 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} 1939- \\ 40 \end{array}$ | $\begin{gathered} 1943- \\ 44 \end{gathered}$ | $\begin{gathered} 1939- \\ 40 \end{gathered}$ | $\underset{44}{1943-}$ |
| Five Corn Belt States. . | \$34.60 | \$74.10 | \$20.00 | \$34.30 | \$14.60 | \$39.80 | $(\%)$ 58 5 | $\begin{gathered} (\%) \\ 46 \end{gathered}$ |
| Three Lake States. | 30.70 | 65.80 | 16.90 | 27.80 | 13.80 | 38.00 | 55 | 42 |
| Four Plains States . | 12.35 | 31.80 | 7.95 | 15.90 | 4.40 | 15.90 | 64 | 50 |

Derived from B.A.E. data.

Fig. 6-Farm income on typical Midwest farm, 1930-45. The income effects of the long depression and the wartime boom show plainly for all types of farms. Income on dairy farms is the most stable, on farms in the plains most erratic. Note the much greater stability of costs than of net income for all types. Bureau of Agricultural Economics.
good knowledge of what makes up a desirable size of farm and type of farming. He needs to know how these two are influenced by the quality of land, rainfall, and the length of growing season. Also important are products produced in an area and their future outlook. Table 4 summarizes some over-all effects of these factors on income and expenses in three major areas.

Note the fairly high gross income per acre in the Corn Belt and Lake States and the good margin between income and expenses compared to that of the Plains Area. While the difference is due mostly to larger production per acre of cropland, it
also is affected by the type and intensity of farming. This explains why a fairly large acreage is needed where returns per acre are low. A smaller farm can be successful in the more productive areas.

Table 4 also shows that the narrow margin above costs in the Plains States can be easily wiped out. The gross per acre not only is lower, but a larger part of it goes for farm expenses.

TABLE 5
How a Drop in Gross Income Affects the Net-by Areas

|  | Corn Belt | Lake States | Plains States |
| :---: | :---: | :---: | :---: |
| Original gross per crop acre | \$53.90 | \$46.80 | \$21.10 |
| Less $30 \%$ due to bad year. | 16.20 | 14.00 | 6.30 |
| Gross, poor year. | \$37.70 | \$32.80 | \$14.80 |
| Expenses for year | 27.00 | 22.00 | 12.00 |
| Remainder per acre, year of reduced gross. | \$10.70 | \$10.80 | \$ 2.80 |
| Remainder per acre, year of original gross. <br> Per cent drop in net income | $\begin{gathered} \$ 26.90 \\ 60 \% \end{gathered}$ | $\begin{gathered} \$ 24.80 \\ 56 \% \end{gathered}$ | $\underset{69 \%}{\$ 9.10}$ |

A 30 per cent drop in production per acre, if not offset by higher prices or lower costs, would almost wipe out the net return. Such a reduction is not uncommon in high risk areas. In most of the Corn Belt and Lake States production seldom falls more than 20 per cent below average so risks of this kind are not so great.

This does not mean that farming in the Plains Area cannot be successful. It does mean, however, that farm operators must know how conditions in their own area affect gross and net income, and be aware of the adjustments that are necessary to meet them.

To illustrate this economic risk, take an example in each of the areas using 1941-42 figures as a base. Suppose a farmer suffers a 30 per cent reduction in gross income in a certain year due to a poor crop on his farm, losses in livestock, or such other causes. Table 5 shows what would happen.

Like all average figures, the figures in Table 5 are not exactly like those of an individual farmer in any of the areas. But they illustrate a general truth that must be reckoned with in farming: Farming costs are high in the Midwest commercialized farming
system. Any big drop in income that is not offset by lower costs soon can squeeze most of the profit out of farming for an individual farmer or for farmers in an area. The expenses shown in Table 5 include no allowance for the value of the farmer's own labor, that of unpaid family members, or any charge for interest on the farmer's own capital.

## Look at Personal Factors, Too

The young man not yet established should consider carefully the best location and type of farming. And he should examine the location in relation to his interests and ability as a manager.

In choosing a location the individual family has the problem of selecting a community in which to live as well as a particular farm. The family must consider housing conditions, whether roads are good or bad, modern conveniences, and the health, educational, social, and religious services that are available. Finally, the question of risk must not be overlooked, whether it is in the field of prices or of weather.

An area-by-area survey of farming conditions in the Midwest will help the family decide where to begin their farming career.

## The Corn Belt

Through the center of the Midwest runs the Corn Belt, one of the largest and most important farming areas in the world. It has a generally fertile soil with a high proportion of plowland. Most of the land is level to moderately rolling. The soil is productive and crop yields are good, but rolling land needs erosion control practices and crop rotations that reduce soil loss.

The growing season is from 140 to 180 days. Summer days and nights are warm. From 18 to 26 inches of rain falls during the growing season and 24 to 40 inches during the year. These conditions make this a "corn country," no widely grown crop surpassing corn in net income per acre. The farming system is built around corn and it dominates the rotation on practically all farms.

About half of the land is devoted to feed grain production with high yields per acre. From 1 to 7 tons of feed grain are produced for each ton of hay. The best rotations include a legume acreage, part of it often used for pasture. Other land is in permanent pasture. Both roughage and grain-using livestock are found on most farms.

## Corn Governs Farming Plan

With corn as the basic crop, farmers have a wide choice in the type of farming that can be followed successfully. Cash crop farms are common in the more fertile and level areas including river bottoms. Corn is the main cash crop followed by soybeans, oats, and wheat. More than half of the farms use the corn as feed and have livestock as their main source of income.


Fig. 7-Corn is the key crop in all of the Corn Belt. The pattern of the 14 smaller areas follows the differences in soil productivity, climate and distance from markets. Most farms are of the family type and provide a good income in prosperous times.

Since corn is a fattening feed, meat animals predominate. In total tonnage among livestock, more hogs are produced than anything else. Hogs can be produced as cheaply here as anywhere in the world, and are expected to dominate the livestock economy of this area for a long time to come.

Beef occupies second place among meat animals. However. beef production is not as simple as hog raising. Some beef is produced by farmers who raise and sell beef calves. Other beef raisers sell feeder cattle to farmers or sell grass-fat cattle to killers. But a large majority of farmers grain-feed their cattle and sell
them as medium to choice corn-fed beef. Many producers buy part or all of their cattle. About two million head of stockers and feeders are shipped in each year from the range states for growing and fattening, the principal cattle enterprise on many farms.

Another important enterprise in the area is dairying, although it tends to be on a small to moderate scale on any one farm. Since many young dairy animals are raised, dairy farms produce some beef as a by-product. Nearly all farmers keep milk cows, either of the dairy or the beef-and-milk (dual purpose) type. The latter type does not produce as much milk per cow but allows the farmer more flexibility in handling the cattle enterprise. He can emphasize milk or beef to suit his labor supply or the comparative price situation.

Sheep are much less important than cattle although many farmers keep a small flock. The feeding of western lambs is an important business on many farms, two million head of feeder lambs being shipped in annually for fattening. However, lamb feeding is concentrated on a small number of farms and is a more specialized business than cattle feeding.

There is a place for chickens on nearly every farm. Most farm flocks are a small to moderate size enterprise rather than a large scale one. Few farmers keep more than 300 hens in the laying flock and usually the number is less. Chickens for meat as well as eggs add to the poultry income. The usual plan is to sell the cockerels and keep the pullets for the laying flock. The raising of both cockerels and pullets rather than buying sexed chicks fits in with the liberal supply of corn as a fattening feed.

## Farm Size and Make-Up

Family size farms of from 80 to 320 acres are the rule in the Corn Belt. Many farmers who do not have family labor or who farm a somewhat larger acreage hire part-time or full-time workers. But it is an unusual farmer who has more than one steady hired man.

Acreage, however, is only one measure of a farm's size. Among the other factors which must be considered in determining the size of any farm are land productivity, climate, number of buildings, and so on.

Although Corn Belt land is priced higher than the United States average, normally the price is not especially high com-

TABLE 6
The Corn Belt Farming Pattern


TABLE 6 (continued)
The Corn Belt Farming Pattern

| Animals Fattened |  | Smaller Farms-More Cows Milked |  |  |  | More Hay and Pasture |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area 7 | Area 8 | Area 9 | Area 10 | Area 11 | Area 12 | Area 13 | Area 14 |
| $\begin{array}{r} 9,200 \\ 1,700 \\ 960 \end{array}$ | $\$ 4,200$ 940 460 | $\$ 8,900$ 2,290 1,130 | $\$ 11,000$ 1,500 1,110 | \$ 9,700 1,250 1,150 | $\$ 6,700$ 1,060 870 | \$ 5,200 1,210 470 | \$ 5,700 1,070 530 |
| \$11,860 | \$ 5,600 | \$12,320 | \$13,610 | \$12,100 | \$ 8,630 | \$ 6,880 | \$ 7,300 |
| 180 | 370 | 155 | 150 | 160 | 250 | 330 | 290 |
| $\begin{gathered} 200 \\ 4.2 \\ \$ 23,700 \end{gathered}$ | 370 4.4 $\$ 20,700$ | 180 4.3 $\$ 22,200$ | 150 4.7 $\$ 20,400$ | 135 4.4 $\$ 16,300$ | $\begin{gathered} 180 \\ 4.5 \\ \$ 15,500 \end{gathered}$ | $\begin{gathered} 190 \\ 3.8 \\ \$ 13,100 \end{gathered}$ | $\begin{gathered} 190 \\ 4.0 \\ \$ 13,900 \end{gathered}$ |
| 4 | 5 | 13 | 6 | 7 | 5 | 4 | 6 |
| 6 | 7 | 4 | 3 | 1 | 4 | 6 | 6 |
| 20 | 22 | 14 | 8 | 5 | 7 | 10 | 10 |
| 70 | 52 | 110 | 76 | 30 | 32 | 46 | 32 |
|  |  | 4 | 8 | 7 | 4 | 10 | 4 |
| 160 | 150 | 180 | 110 | 110 | 100 | 125 | 120 |
| 2,660 26 | 1,410 34 | 2,090 48 | 1,990 21 | 1,420 24 | 1,730 20 | 1,160 26 | 950 28 |
| 35 | 15 | 53 | 49 | 50 | 40 | 38 | 26 |
|  |  |  | 19 |  |  | 15 | 11 |
| 32 | 24 | 36 | 36 | 42 | 34 | 30 | 27 |
|  |  | 19 | 25 | 22 | 19 | 16 | 16 |
| 1.6 | 1.0 | 1.9 | 1.4 | 1.5 | 1.3 | 1.3 | 1.4 |
| 38 | 28 | 49 | 55 | 53 | 63 | 55 | 47 |
| 16 | 23 | 10 | 14 | 20 | 13 | 15 | 18 |
| 45 | 49 | 40 | 31 | 27 | 23 | 30 | 34 |
| 18 | 22 | 4 | 15 | 19 | 17 | 7 | 14 |
| 53 | 43 | 51 | 44 | 26 | 30 | 66 | 42 |
| 21 | 30 | 27 | 28 | 35 | 29 | 18 | 24 |
| 2 | 1 | 15 | 8 | 15 | 16 | 2 | 11 |
| 3 | 3 | 2 | 3 | 4 | 6 | 4 | 5 |
| 80-320 | 160-600 | 80-320 | 60-280 | 60-240 | 60-320 | 120-400 | 120-400 |

pared to its productivity. At 1940 prices a large share of the farms for sale could be purchased within a range of $\$ 50$ to $\$ 150$ per acre. By 1949 the price had almost doubled. It is not likely that land prices will return to the level of the late thirties.

Two farms out of every five are rented. Many landlords are retired farmers or business men who hold a farm as an investment. Other landlords are women, who own perhaps one-fourth of all rented farms. The large number of rented farms is an advantage to the young farmer of limited capital because he may find a farm of desirable size and good productivity even if his capital is small.

The people of the area come largely from central and northern European ancestry and older American stocks. They are thrifty, progressive, and a large number are highly skilled farmers. Most farms are well mechanized and farm income usually is good when farm prices are favorable. Few commercial farmers do much work outside of farming, but many part-time farmers live around the cities and other industrial areas.

## Many Variations in the Corn Belt

The Corn Belt covers all or parts of eleven Midwest states. Such a large area has many variations within it. Some general facts about the fourteen smaller areas set out on the map of the Corn Belt are given in Table 6. ${ }^{1}$

## Where More Cash Grain Is Sold

In areas 1 through 5, many farmers sell grain to provide a large part of their income. Some sell practically all of their grain, others feed most of it. In fact, some raise and feed so many livestock that they must buy extra grain from neighboring farms. Each man adopts the plan that seems best for his particular situation.

Many farms are owned by landowners and the tenancy rate is high. The most common rental plan is to give a share of the

[^0]crop for the rent, usually one-half on good farms. The landlord ordinarily sells his share of the grain even though the tenant may feed most or all of his. The tenant often pays cash for the hay and pasture land.

Corn, of course, is the important cash crop in areas one through five. Soybeans are second in the areas where they fit, and oats, wheat, and flax are other cash crops.

Most of the land is level or gently rolling and high in native fertility. A large percentage of the land can be kept in grain crops, although some hay is raised. Legumes, especially sweet clover, often are plowed under for green manure. Crop residues also are plowed under to help maintain fertility and in many areas the soil needs to be limed. If the area has been farmed very long it pays to use commercial fertilizer. Grain takes plant food from the soil, but with good management cash grain farmers on good land can keep crop yields high for a long time.

One man may care for 80 to 200 acres of crops where few livestock are kept. But on smaller farms one man will care for more livestock since grain raising alone does not keep him well occupied.

1. Illinois-Indiana Cash Grain Area-This is the most intensive cash grain area in the Corn Belt. Capital required to own a good farm runs into money, so many farms are rented. About one acre of soybeans is grown for each two acres of corn. The corn yield in normal years is about 50 bushels per acre, although good farmers get 60 to 80 bushels. Nearly 7 tons of feed grain are raised for each ton of hay, the most in the Corn Belt. The value of crops on the average farm in 1944 was $\$ 6,750$.
2. Iowa-Minnesota Cash Grain and Livestock-A lot of cash corn is shipped out of this area, though less than in the cash grain area of Illinois. More livestock are raised, especially hogs. In fact, more livestock are kept per square mile than are found in many strictly livestock areas. Grain production of about 70 tons per 100 acres of farm land provides large supplies of cash grain for sale as well as feed for a good many livestock. About five acres of corn are grown to one of soybeans. Typically, corn yields 50 bushels per acre or better and yields of 60 to 90 bushels are not uncommon.

Some 6 tons of feed grain are raised for each ton of hay. The value of harvested crops on the average farm in 1944 was $\$ 5,360$.
3. Wabash Valley-Quite a bit of cash grain is raised here, especially on bottom land farms. Most upland farms are livestock or general type farms. About four acres of corn are grown to one of soybeans. Wheat is the common small grain crop in the rotation. The average yield of corn is about 40 bushels per acre with much higher yields on wellmanaged farms. About 3 tons of feed grain are raised for each ton of hay. Crop value in 1944 on the average farm was $\$ 3,530$.
4. Northwest Corn Belt Fringe-The acreage of small grain and flax exceeds that of corn in this section. Rainfall is more erratic, the season for corn is short, and yields per acre are lower. But corn still makes a good cash or feed crop and 40 to 80 acres are grown on typical farms. Something over 3 tons of feed grain are grown for each ton of hay. The value of harvested crops per farm was $\$ 4,070$ in 1944.
5. Southwest Corn Belt Fringe-Here too the Corn Belt is shading off into more of a wheat country. Rainfall is quite erratic and yields are lowest of the Corn Belt area. Grain sorghums are used on many farms to replace corn as they are more drouth resistant. Cattle are common but hog production varies from year to year with the corn crop. An average of $11 / 2$ tons of feed grain are raised per ton of hay. Crop value per farm in 1944 was $\$ 4,320$.

## Livestock Feeding Areas

Although growing and fattening of meat animals is well distributed over the Corn Belt, the following three areas specialize more than the others. Two of these, the Mississippi and Missouri River Valley areas, are particularly important. A large supply of feed grain, hay, and pasture is typical with much of the grain being corn.
6. Mississippi River Valley Meat Area-This is one of the most intensive meat producing areas in the world, especially of hogs. Cattle fattening also is important, both of shipped-in and native cattle. Dairying and poultry usually are supplementary enterprises, but some farmers find that more milking
fits their situation best. Corn yields are the highest in the Corn Belt. With the many enterprises and the degree of specialization usually found, skill in management and in farm operation is needed. About 4 tons of feed grain are raised per ton of hay. Value of harvested crops per farm in 1944 was $\$ 5,700$.
7. Missouri Valley Meat Area-Both hog raising and cattle feeding are important in this section, the latter more so than in area 6 . The area occupies the rolling country on either side of the Missouri River in the main Corn Belt. Pigs usually are spring farrowed and sold at heavy weights. A great many cattle are shipped in for fattening from the range country to the west, but some are raised. Cash crop farms are found throughout the area, especially in the river bottoms. About $31 / 2$ tons of grain are raised for each ton of hay. Crops per farm were worth $\$ 4,570$ in 1944.
8. Nebraska-South Dakota Corn Belt Fringe-Since less rain falls in this area and crop yields are lower, farms need to be about twice as large as in areas 6 and 7 (See Table 6 for comparison) to make a family unit. Crop yields are erratic. Both livestock and general type farms are common with many of the cash crop type found, especially on rented farms. Hogs are important and cattle feeding is fairly heavy, especially following good corn years. Many farmers keep cows although herds are not very large. Usually several cows are milked, especially when farm income is less favorable. About 2 tons of grain are raised for each ton of hay. Crops per farm in 1944 were worth $\$ 4,050$.

Dairying and General Farming
In areas 9 through 12 of the Corn Belt the average farm is somewhat smaller than those discussed in the first eight areas. With more labor available and a good deal of hay and pasture, many farmers in these areas turn to dairying along with hog raising and chickens to increase their incomes.

Lying more in the eastern part of the Corn Belt, these areas are nearer the large centers of population, which gives an added incentive to dairying. However, other farming types are found: Many general type farms, some cash crop farms, a few cattle feeding farms, and occasional specialized types.

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Fig. 8-Farm land use pattern in fourteen parts of the Corn Belt Area in 1944, a wartime production year.

1. Ill. - Ind. cash grain
2. Iowa - Minn. cash grain and livestock
3. Wabash valley
4. N.W. Corn Belt fringe
5. S.W. Corn Belt fringe
6. Miss. River valley meat producing
7. Mo. River valley meat producing
8. Neb. - S. Dak. Corn Belt fringe
9. Iowa - Wis. - Ill. hog and dairy
10. Ind. - Ohio hog and general farming
11. Ind. - Ohio - Mich. mixed farming
12. Ind. - Mich. general farming
13. Iowa - Mo. livestock and pasture
14. So. Corn Belt fringe

Legend: C - Corn; B - Soybeans; G - Small grains; H - Hay; M - Miscellaneous crops; P - Pasture, rotation and permanent; F - Farmstead, roads, timberland.

The more fertile the soil, the higher the proportion of cropland in corn or soybeans. Livestock plans are related to the feed crop combination and nearby markets.
9. Iowa-Wisconsin-Illinois Hog and Dairy Area-The rolling land lying along either side of the Mississippi River makes this a productive farming area. The large amount of grain and hay produced per farm furnishes feed for a rather intensive livestock program. Hogs bring in the most income of any single enterprise. Dairying is a sizeable enterprise, and poultry are important. On rented farms, the livestock-share lease is common. Yields generally are quite high as most of the cropland is of good quality; crop rotations are used and rainfall is dependable. About $11 / 2$ tons of grain are raised per ton of hay. Crops in 1944 were worth $\$ 4,100$ per farm.
10. Indiana-Ohio Hog and General Farming Area-Rainfall usually is quite dependable in this productive area. Many farms are of the smaller family size-60 to 120 acres. Crop yields are good but manure, lime, and commercial fertilizer are generally needed to maintain them. Some farmers grow special crops such as tomatoes for canning. Hog raising is important and the two-litter system is used. Most farmers milk several cows but few specialize in dairying. About 3 tons of grain are raised for each ton of hay. Crops in 1944 were worth $\$ 3,700$ per farm.
11. North Indiana-Ohio-Michigan Mixed Farming-Many medium to smaller size family farms of 140 acres or less are found here. Crop yields are good and rainfall is quite dependable. More grass is used in the rotation than in the area immediately to the south. Hogs are less important than in most of the Corn Belt while dairying and poultry are more important. Three-fourths of the farmers own all or part of the land they operate. About 2 tons of grain are raised for each ton of hay. Crops were worth $\$ 3,200$ per farm in 1944.
12. North Indiana-Michigan General Farming-Lying nearer Lake Michigan, this area has a less fertile soil than central Indiana. Farms are larger in acreage than in areas 10 and 11 but are rather small in output per farm, as Table 6 shows. With a less responsive soil, good management is important. A large share of the farms are owned and no single type of farming predominates. About 2.8 tons of grain are raised per ton of hay. Crops per farm were valued at $\$ 3,000$ in 1944.
13. Iowa-Missouri Livestock and Pasture Area-The land in this large area is rolling and the soil, not highly fertile, erodes easily. Much of the land is in permanent pasture and the hay acreage is large. Many farmers need a larger acreage to make a good family unit. Usually, the larger operators on a 320 -acre farm or more keep a beef cow herd while those on smaller farms more likely have milk or dual-purpose cows. The number of hogs raised changes with the corn supply. Sheep flocks are common. About $11 / 2$ tons of grain are raised for each ton of hay. Crops per farm were worth $\$ 2,200$ in 1944.
14. Southern Corn Belt Fringe-Some good river bottom land is found in this area, but fertility of the upland varies. Much of the upland is rolling making soil erosion a common problem. The surface soil often is thin so quite a little of the land is in pasture or hay. Summer drouths are not uncommon and lower the average grain yield. Cattle are more important and hogs less important than in areas raising more corn. Less than one ton of feed grain is raised per ton of hay. Crops were worth $\$ 2,470$ per farm in 1944.

## The Dairy Area

Along the Corn Belt's northern border is an area with wide variations in quality and depth of soil. Not so much land is under cultivation and hay occupies more of the cropland. The growing season is shorter than in other parts of the Midwest, summer nights are cooler, but summer rainfall is more dependable. Corn gradually becomes less important as one moves north, while the cooler weather crops, small grain, and hay play a large role. For cash crops, shorter season crops such as potatoes, dry field beans, or the canning crops, peas and sweet corn, are prominent.

In most of the Dairy Area about half of the land is in crops. The acreage of both small grain and hay exceeds that of corn. The tonnage of feed grain often is less than that of hay and is reduced further since much of the corn is used for silage. About 40 per cent of the farm land is in pasture. Such a feed supply fits well the predominate type of farming in this area-dairying.

Along with dairy herds, hogs and medium sized poultry flocks are common. In the southwest part of the Dairy Area farmers
often sell butterfat and use skim milk for livestock feed, although a shift toward commercial uses for skim milk was going on in the late 1940's. During World War II the manufacture of whole and skim milk powder developed as a major industry. Near the cities milk goes largely for fluid use. Farther north, cheese factories, condenseries, or driers are the chief markets.


Fig. 9-The edges of the Corn Belt grade off into other types of farming more suitable to these conditions; dairying to the northeast; general farming to the southeast; wheat growing and cattle ranching to the west. Conditions are more variable in these three areas than in the central Corn Belt.

The lower peninsula of Michigan is a special area. Flanked on three sides by the Great Lakes, its growing season varies more than elsewhere. Along the eastern shore, such fruits as apples, peaches, pears, cherries, and small fruits are of commercial importance. This also is true in other more sheltered spots.

The people in the Dairy Area are largely of central and northern European extraction. They are thrifty and willing to undertake the steady work and long hours that go with dairy farming.

Some Nonfarm Areas
In the extreme northern part of Minnesota, Wisconsin, and Michigan are large areas that cannot be made into suitable farms. Many so-called farms can be bought at low cost per acre, which may lead unwary families into the mistake of trying to farm such land for a livelihood. Little more than an existence is possible on the income obtained from smaller acreages of the poorer land, although some better farm land is scattered throughout the area. Summer resorts are common and many part-time farmers try to work out a combination of farming with another occupation. Some families are quite successful but many are not. In general, such combinations furnish a less dependable income than commercial farming.

Family farms predominate all through the Dairy Area. Since dairying is the main enterprise, the farm size tends to be one that will furnish feed for a cow herd that a family can milk. Farm income is moderate but quite stable, a characteristic of dairy farming areas.

Table 7 provides data on seven of these subareas, the eighth having such a wide variety of farming that average figures are not representative.

1. Wisconsin-Illinois Intensive Dairy-The Chicago and Milwaukee milksheds are included in this area, the heart of the Midwest dairy belt. With much productive land and a generally good market, it is an intensive dairy area. Farms run medium to small in acreage, typical farms being 80 to 140 acres in size. The sale of milk brings in the larger share of the income, although hogs add some and most farms have a good poultry flock. Peas are a cash crop. More capital is needed per farm than in any other Midwest dairy area. About $11 / 2$ tons of grain are raised for each ton of hay. Harvested crops were worth $\$ 3,600$ per farm in 1944.
2. North Mississippi River Valley Dairy Area-Dairying is first in importance and hogs second in this section, which lies on either side of the Mississippi River in southern Minnesota and west central Wisconsin. Most of the land is quite rolling but the soil is productive. About one-third of the land is in pasture. Many young dairy cattle are sold to eastern dairy farms. Here, more so than farther east, more cream

TABLE 7
The Dairy Area Farming Pattern

|  | Better Land-More Crops |  |  |  | Poorer Land-Less Income |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Area 1 | Area 2 | Area 3 | Area 4 | Area 5 | Area 6 | Area 7 |
| Per 100 acres of farm land Capital |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Land and buildings . . | \$12,800 | \$ 5,900 | \$ 8,600 | \$ 7,800 | \$ 4,300 | \$ 3,000 | \$ 3,100 |
| Livestock. . . . . . . | 2,780 | 1,820 | 1,560 | 1,320 | 1,800 | 1,000 | 770 |
| Machinery . | 1,800 | 970 | 1,070 | 1,410 | 940 | 550 | 640 |
| Total. | \$17,380 | \$ 8,690 | \$11,230 | \$10,530 | \$ 7,040 | \$ 4, 550 | \$ 4,510 |
| Acres needed for \$4,000 gross income. | 110 | 200 | 180 | 200 | 240 | 340 | 330 |
| Average farm in area Acres per farm. | 130 | 170 | 120 | 130 | 140 | 170 | 130 |
| People per farm. | 4.9 | 4.4 | 5.1 | 4.4 | 4.1 | 5.3 | 3.9 |
| Capital per farm | \$22,600 | \$14,800 | \$13, 500 | \$13,700 | \$ 9,900 | \$ 7,750 | \$ 5,900 |
| Number of livestock per farm Milk cows. | 17 | 14 | 8 | 8 | 15 | 10 | 6 |
| Other cattle | 9 | 14 | 7 | 8 | 7 | 10 | 5 |
| Pigs raised. | 26 | 30 | 13 | 13 | 8 | 12 | 3 |
| Ewes kept. |  | 3 | 2 | 6 |  | 3 |  |
| Chickens kept | 125 | 150 | 125 | 90 | 70 | 80 | 40 |
| Raised per farm |  |  |  |  |  |  |  |
| Feed grains, tons. | 53 | 48 | 25 | 25 | 17 | 21 | 8 |
| Hay, tons. . | 39 | 40 | 29 | 22 | 41 | 47 | 31 |

TABLE 7 (continued)
The Dairy Area Farming Pattern

|  | Better Land-More Crops |  |  |  | Poorer Land-Less Income |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Area 1 | Area 2 | Area 3 | Area 4 | Area 5 | Area 6 | Area 7 |
| Yield per acre |  |  |  |  |  |  |  |
| Corn, bu. | 46 | 42 | 45 | 38 | 33 | 28 | 29 |
| Oats, bu. | 45 | 33 | 41 | 47 | 29 | 32 | 34 |
| Hay, T.. | 1.8 | 1.6 | 1.5 | 1.3 | 1.4 | 1.4 | 1.4 |
| Per 100 farms in area |  |  |  |  |  |  |  |
| Full owners. | 63 | 57 | 71 | 64 | 72 | 63 | 80 |
| Part owners. | 10 | 14 | 12 | 21 | 14 | 21 | 14 |
| Tenants. | 26 | 29 | 16 | 15 | 14 | 16 | 6 |
| Dairy farms . | 69 | 44 | 42 | 20 | 84 | 52 | 3 |
| Livestock farms. | 6 | 22 | 18 | 10 | 2 | 12 | 53 |
| General farms. | 14 | 25 | 25 | 39 | 10 | 27 | 20 |
| Poultry farms. | 3 | 4 | 10 | 3 | 1 | 3 | 7 |
| Crop farms. . | 4 | 2 | 5 | 25 | 1 | 2 | 4 |
| Size, usual range, acres | 40-280 | 60-320 | 40-240 | 40-240 | 60-280 | 60-320 | 40-280 |

is made into butter. About 1.2 tons of grain are raised for each ton of hay. Crops in 1944 were worth $\$ 2,700$ per farm.
3. Northeast Ohio Dairy and Mixed Farming-This more densely populated section has farms that run to the smaller family size of 60 to 120 acres, most of them farmer owned. Farmers usually have a diversified program which centers around milk cows. Quite a little specialized farming is found around the cities, such as intensive dairy, poultry, vegetable or fruit farms. A little less than a ton of feed grain is raised per ton of hay. Crops were worth $\$ 2,700$ per farm in 1944.
4. East Michigan Dairy and General Farming-A wide variation in types of farming is found here. The area includes much of the Detroit milkshed. However the growing of cash crops such as dry field beans, sugar beets, and potatoes is important. A few hogs are raised and chicken flocks are numerous. Most of the farms are operated by owners. The typical farm business is rather small both in capital and income as Table 7 shows. About $11 / 4$ tons of feed grain are raised per ton of hay. Crops per farm were worth $\$ 2,760$ in 1944.
5. Central Wisconsin Dairy and General Farming-Milking provides the principal income in this section and much of the milk goes to cheese factories or condenseries. Soil here is less fertile than in areas to the west, south, or east, although there are some very good farms. With lower grade land, farms generally should be larger than they are. A little less than one-half ton of grain is raised per ton of hay so additional feed often must be purchased. Crops per farm were worth $\$ 1,840$ in 1944.
6. Northwest Minnesota Cutover Fringe-More farms are of commercial size in this area than in most of the cutover country. Dairy and general types of farms are most common. The acreage of feed crops per farm is small and the lower land productivity means that the income per farm is limited. About one-half ton of grain is raised per ton of hay. Crops per farm were worth $\$ 1,450$ in 1944.
7. Minnesota-Wisconsin-Michigan Cutover Area-Some good farms and farming areas are scattered through much of this



Fig. 10-Farm land use pattern in seven parts of the Dairy Area in 1944, a wartime year.

1. Wis. - Ill. intensive dairying
2. N. Miss. river valley dairy - hog poultry
3. N.E. Ohio dairy and mixed farming
4. E. Mich. dairy and general farming
5. Central Wis. dairy and general farming
6. N.W. Minn. cutover fringe
7. Minn. - Wis. - Mich. cutover area

Legend: C - Corn; G - Small grain; H Hay; M - Miscellaneous crops; P - Pasture, rotation or permanent; F - Farmstead, roads, timber, waste.
More small grain, hay and pasture fit in with dairying as the leading farm enterprise. Miscellaneous cash crops are a supporting enterprise.
cutover timber country. The typical farm is small in size of business, many farms having only five to eight cows. Other farms are of a noncommercial type. General rather than dairy farming is most common. Since the growing season is short most of the farm land is devoted to pasture and hay. Potatoes are a cash crop. Only about one-fourth ton of feed grain is raised per ton of hay. Crops were worth $\$ 1,350$ in 1944.
8. Michigan East Shore-The protection furnished by the Great Lakes makes fruit farming important in this area along with dairying, poultry, and vegetables. Since farming here varies so much, no brief description is adequate.

## The General Farming Area

To the south of the central Corn Belt lies an area somewhat different from the main belt, but it still is one where corn is adapted. Here the land is more often rolling and sometimes hilly, and there is less plowland than in the Corn Belt. Soils usually are not as fertile and there are places where the surface soil on rolling land has been washed away. Control of soil erosion is a major problem. The growing season is somewhat longer and rainfall usually is more plentiful than in other parts of the Midwest. But the less fertile and more rolling land limit the acreage of corn and other row crops and make it important to choose crop rotations carefully. Yields per acre are substantially less than in the Corn Belt area. Where soils are thin they often are "drouthy" and small grains or grasses may return more per acre than corn. Much of the land needs lime, and commercial fertilizer is needed generally.

The one-third of the land devoted to crops is about equally divided between corn, small grain, and hay. Part of the small grain is wheat. The feed grain combination provides $3 / 4$ to $11 / 2$ tons of grain per ton of hay. More than half of the land is in pasture.

There are fewer profitable types of farming in this area than in the central Corn Belt. For example, cash crop farming is not as adaptable and almost no livestock specialization is found because there is not enough grain for heavy feeding programs. As a result, general livestock farming predominates. Few hogs are raised and the livestock are the roughage consuming kind-
cattle or sheep. Dairying is of considerable importance and by mid-century probably was increasing faster in the area than any other enterprise.

Larger farms usually raise beef cattle, most of them being sold either as feeders or as grass-fat cattle. Some are grain-fed by shipping in corn from farther north or buying it from local bottom land farms. Many farms have small flocks of sheep although larger flocks are found on the rougher land. Poultry flocks are the family size common to the Midwest and are found on most farms.

Many Small Farms
Farms are smaller here than in the main Corn Belt Area, many of them too small to support a family and make rent payments to a landlord as well. Fortunately, most of the farms are owned by the operators but much of the area needs to shift to larger units. Land prices are lower than in the central Corn Belt although there are many acres of good land. The price range is wide, $\$ 20$ to $\$ 80$ per acre being pre-World War II levels, but prices almost doubled during the wartime rise. Bottom land is considered more desirable here than it is farther north.

Where the unit is small many farmers work at other occupations on a part-time basis. However, much of the area lacks local industry so that off-farm opportunities are limited.

Compared to the central Corn Belt the average farm produces a lower income, is harder to mechanize, and there are fewer contacts between the farmers and people in other areas. As a result modern methods and practices have come in more slowly. Much progress is being made, however.

Good farming opportunities still are to be found. Young farmers often can start with less capital than in more commercialized areas. But they should not be misled into trying to start on farms where land resources are too limited. Under such conditions even highly skilled management will not bring in enough income to provide a satisfactory level of living for the family.

A high percentage of the people in this area are of the older American stock since the area was settled early in Midwest history. Some important facts about characteristic farms in the General Farming Area will be found in Table 8.

TABLE 8
The General Farming Area Pattern


TABLE 8 (continued)
The General Farming Area Pattern


1. St. Louis Milkshed-Some farms are on rolling uplands in this area, some on bottom land, and others on the flat, heavy soil in the eastern part of the area. Farms are mostly of commercial size, but run to the smaller family or one-man types. Dairying is most important though hogs as well as poultry bring in substantial amounts of income. Wheat is the main small grain. About $11 / 2$ tons of feed grain are raised per ton of hay. Crops per farm were worth $\$ 3,570$ in 1944.
2. Missouri Ozarks-In this rather large area commercial farms are scattered among smaller, often self-sufficient ones. About one-fourth of the farm land is in crops. Crop yields are moderately low, but can be much improved under good management. General and livestock farming predominates. In southwest Missouri more fruit raising, dairying, and poultry are found than in the rest of the Ozark area. Something less than one ton of feed grain is raised per ton of hay. Crops in 1944 were worth $\$ 1,320$ on the average farm.
3. Southern Illinois Graylands-Heavy, generally level soils that have the tight gray layer typical of them account for the name here. Since the soil does not absorb water readily, it is wet and heavy in rainy periods and drouthy in dry ones. Yields generally are rather low. Farms should be a half section or more in size to make use of an extensive farming system, but most are not. Hence, income per farm usually is low. About one ton of feed grain is raised per ton of hay. Crops per farm were worth $\$ 1,260$ in 1944.
4. Upper Ohio River Valley-This rolling to hilly area is made up of many 40 - to 160 -acre farms with a scattering of larger, more commercialized kinds. About one-third of the farm land is in crops. General, livestock, crop, and dairy farms are about equal in importance. About one ton of feed grain is raised per ton of hay. Crops were worth $\$ 1,780$ per farm in 1944.
5. Southern Indiana Hills and Bottoms-An old coal field area occupies much of this section. Most of the upland is hilly and about 40 per cent of the farm land is in crops. Farms often are too small for a good family income. But some are larger farms with enough good land to keep the farmer


Fig. 11-Farm land use pattern in six parts of the general farming area in 1944, a wartime year.

1. St. Louis milkshed
2. Upper Ohio river valley
3. Missouri Ozarks
4. So. Indiana hills and bottoms
5. So. Illinois gray lands
6. S.E. Missouri cotton and general

Legend: C - Corn; B - Soybeans; G - Small grain; H - Hay; M - Miscellaneous crops (Includes cotton in S. E. Missouri) ; P - Pasture, rotation and permanent; F - Farmstead, roads, timber, waste.

Less uniformity and lower productivity of land resources results in more general farming as the typical situation in this area.
efficiently employed. Farmers find it to their advantage where they have some good bottom land for crops. No single type of farming stands out. A little over 1.4 tons of feed grain is raised per ton of hay. Crops were worth $\$ 1,850$ per farm in 1944.
6. Mississippi Delta Cotton-The cotton area reaches up into southeast Missouri and extends far down the Mississippi. Here cotton is king rather than the typical Midwest crops. Three-fourths of the land is in crops and nearly one-third of this is in cotton with much higher percentages on good cotton farms. Cash crop farming predominates with only a little livestock on most farms. Farms of 20 to 80 acres are common since cotton raising is little mechanized as yet. Tenancy is high. The soil generally is quite productive. On less intensive cotton farms about as much grain and hay is raised as in the hill country to the north even though livestock enterprises usually are small in size. A little over one ton of feed grain is raised per ton of hay. Crops were worth $\$ 3,900$ per farm in 1944.

## The Great Plains

West of the Corn Belt lie the Plains States, only a part of them in the Midwest. Conditions here vary greatly and soils range from those high in fertility to large sandy areas or other types low in fertility. In some sections most of the land is plowable while in others almost none can be plowed. As the name indicates, the Plains Area is level to gently rolling. Annual rainfall drops from 30 inches on the eastern edge to 20 inches or less each year farther west. The growing season varies from about 130 days in the north to 180 in southern Kansas.

The drier weather crops-wheat, small grains, flax, and grain sorghums-are important. Wheat is the principal cash crop.

Where the land cannot readily be plowed, large areas are grazed. Beef cattle raising is the principal enterprise, although sheep are found in some areas. In the Sand Hills of Nebraska, beef cow herds fit best while in the Flint Hills of Kansas, stock steers are shipped in for fattening on grass.

Irregular rainfall creates special problems for the Plains States. There may be a longer annual rainfall cycle, but year to year variations are wide and crop yields follow the rainfall
pattern. The problem is made more difficult by the tendency for prices to be low in good crop years. Coupled with this, farm operating costs take more of the gross income, and high costs may leave the farmer with little or no profit. When crops and prices are good, income goes up rapidly. But it goes down just as rapidly when conditions are unfavorable. Therefore, reserves either in crop carry-over, cash, or both, are most important.

Conditions in the area make it difficult for young farmers to get started. The chance of running into a series of lean years is considerable and beginners usually are in a weak position to carry on if setbacks come at that time.

## Small Farms, Large Acreages

Unfortunately for the Plains Area, it was settled when the traditional quarter section farm of the Midwest was the standard size-much too small to provide a decent family living. In fact, a going farm in the drier areas may be a section or more in size, while in the cattle country a farm of 2,000 acres is of medium size. Since most of the farms are highly mechanized, one man can care for a large acreage of cropland.

In the years immediately following World War II, land prices in this area were not high, at least in dollars per acre. However, it would be fatal for farmers to bid up the price of land. The high risk and usual slim profit margins make it extremely unwise to establish high fixed costs. This is very important to the young farmer who may look at the low price per acre and be misled into placing a heavy mortgage on a farm in order to own it. Nowhere else in the Midwest are low costs more vital. Table 9 sets out some of the characteristics of typical farms in the Plains Area.

1. Central Kansas Wheat and General Farming Area-Wheat raising is more dependable here than farther west, though yields per acre are about the same when the crop is good. Farms are larger than in the Corn Belt but much smaller than in southwest Kansas. However, income is more dependable. Crop farms predominate though a good many livestock and general farms are found. As is generally true in the wheat country, many men own one farm and rent additional land to increase the size of business. Harvested crops were worth $\$ 4,700$ on the average farm in 1944.

TABLE 9
The Wheat Area Farming Pattern


TABLE 9 (continued)
The Wheat Area Farming Pattern

\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Spring Wheat Area} \& Cow Herds* \& \begin{tabular}{l}
Grass \\
Fattening*
\end{tabular} \\
\hline Area 5 \& Area 6 \& Area 7 \& Area 8 \& Area 9 \& Area 10 \\
\hline \[
\begin{array}{r}
\$ 1,500 \\
420 \\
350
\end{array}
\] \& \$ 1, 100
360
270 \& \$ 1, 300
460

270 \& $$
\begin{array}{r}
\$ 2,000 \\
640 \\
410
\end{array}
$$ \& $\$ \quad 700$

360

70 \& $$
\begin{array}{r}
\$ 3,900 \\
750 \\
340
\end{array}
$$ <br>

\hline \$ 2,270 \& \$ 1,730 \& \$ 2,030 \& \$ 3,050 \& \$ 1,130 \& \$ 4,990 <br>
\hline 520 \& 570 \& 640 \& 450 \& 1,960 \& 540 <br>
\hline ${ }_{620}^{4.3}$ \& 710
3.6 \& 800
4.8 \& ${ }^{450} 3.6$ \& 2,000
3.9 \& 370
3.7 <br>
\hline \$ 14,100 \& \$12,300 \& \$16,200 \& \$13,700 \& \$22,100 \& \$18,400 <br>
\hline 7 \& 6 \& 8 \& 6 \& 4 \& 4 <br>
\hline 5 \& 8 \& 15 \& 7 \& 40 \& 10 <br>
\hline 18 \& 14 \& 25 \& 18 \& 50 \& 22 <br>
\hline 12 \& 14 \& 24 \& 40 \& 16 \& 26 <br>
\hline 12 \& 7 \& 8 \& 14 \& 60 \& <br>
\hline 80 \& 70 \& 80 \& 125 \& 80 \& 120 <br>
\hline 1,710 \& 1,560 \& 1,530 \& 730 \& \& 640 <br>
\hline 12 \& 10.5 \& 13 \& 12 \& 11 \& 22 <br>
\hline 21 \& 15 \& 19 \& 16 \& 18 \& 25 <br>
\hline 25 \& 23 \& 27 \& 27 \& \& <br>
\hline 0.8 \& 0.8 \& 1.0 \& 0.9 \& 0.7 \& 3.0 <br>
\hline 30 \& 27 \& 31 \& 21 \& 27 \& 37 <br>
\hline 41 \& 52 \& 47 \& 33 \& 45 \& 20 <br>
\hline 29 \& 21 \& 22 \& 46 \& 28 \& 42 <br>
\hline 62 \& 76 \& 69 \& 42 \& 13 \& 17 <br>
\hline 12 \& 10 \& 12 \& 26 \& 71 \& 50 <br>
\hline 22 \& 12 \& 18 \& 30 \& 12 \& 21 <br>
\hline 2 \& 1 \& 1 \& 1 \& 1 \& 6 <br>
\hline 1 \& 1 \& \& 1 \& 1 \& 4 <br>
\hline 240-1200 \& 300-1500 \& 320-2000 \& 200-1000 \& 600-5000 \& 160-800 <br>
\hline
\end{tabular}

* Range Livestock Area.


2. Central Plains Specialized Wheat-In this most specialized wheat area of the Midwest, farms often are a section or more in size because one family can handle a large acreage of crops. Sixty per cent of the farm land is in crops and about half of this is in wheat. However, rainfall is not very dependable and yields are uncertain. Improved methods,


Fig. 12-Farm land use pattern in ten parts of the Plains in 1944, a wartime year.

1. Central Kansas wheat and general farming
2. Central Plains specialized wheat
3. S.W. Kansas wheat and grain sorghum
4. Red River valley
5. Central N. Dak. specialized wheatsmall grain-livestock
6. Upper Mo. River specialized wheat and livestock
7. Western N. Dak. specialized wheat and livestock
8. Specialized Wheat - Corn Belt transition
9. Sandhills-Plains range livestock
10. Kansas flint hills

Legend: W - Wheat; G - Other small grain and flax; H - Hay; C - Corn; M - Miscellaneous crops; I - Idle and fallow; P - Pasture, rotation and permanent; F - Farmstead, roads, waste.

Dry weather crops predominate in the Plains, wheat in the better crop areas, pasture and hay for range livestock elsewhere. In some areas, as much as 80 per cent of the farm land is in crops, in others, less than 20 per cent.
including use of fallow land in the rotation, have boosted yields and increased crop dependability. Quite a few cattle are pastured on wheat when the fall growth is good. Others
are kept to use up pasture and hay. From here south and west is the short grass country. In 1944, crops were worth $\$ 6,700$ per average farm.
3. Southwest Kansas Wheat and Grain Sorghum-Grain sorghum is a better feed crop than corn in this area, which begins in Kansas and extends well down into Oklahema and Texas. Rainfall is less dependable than in central Kansas and farms are larger. Wheat yields are decidedly less per acre than in areas 1 and 2. With reasonable rainfall and good prices, farmers have high incomes. But they suffer badly during drouths or depressions. Crops were worth $\$ 8,200$ per farm in $19 \dot{4} 4$.
4. Red River Valley Wheat-Potatoes - Sugar Beets-LivestockThe soil is good but the growing season short in this diversified farming area. Cool weather crops predominate and yields generally are good. The area is well mechanized. Crops like potatoes and sugar beets require a great deal of labor per acre; wheat, flax, and small grains very little. Quite a little milking is done but few strictly dairy farms are found. Crops in 1944 were worth $\$ 7,500$ per farm.
5. Central North Dakota Spring Wheat-Small Grain-Live-stock-Wheat is the main crop though other small grains are important on farms in this territory. About 70 per cent of the land is in crops. Many farmers keep cattle to use up hay and pasture. Rainfall is uncertain and yields vary from year to year. Crops in 1944 were worth $\$ 5,000$ per farm.
6. Upper Missouri River Valley Wheat and Livestock-Though much like central North Dakota, less of the land here is in crops, yields are lower and not as dependable. Farms are some what larger in acreage, a section of land being a medium sized farm. Crop farms predominate though some livestock and general farms are found. Crops per farm were worth $\$ 5,900$ in the good year of 1944.
7. Southwest North Dakota Wheat-Livestock-West of the Missouri River, more land is in pasture and hay, and less in crops. Farms are somewhat larger. Cattle are kept to use the pasture and hay and diversify the income. Since crop yields are erratic, livestock help stabilize the farm business. In 1944, crops worth $\$ 5,550$ per farm were raised.
8. Spring Wheat-Corn Belt Transition Area-About one-third of the cropland is in corn in this area, and more than half in wheat and other small grains, including flax. A general farming pattern is usual. More hogs are raised than is typical in the regular wheat country. Farms are somewhat smaller, 320 to 480 acres being a frequent size. Crops worth $\$ 4,730$ were raised on the average farm in 1944.
9. Sand Hills-Great Plains Range Livestock-This is a grazing rather than a crop area. About 80 per cent of the land is in pasture and another 10 per cent in hay. Most cow herds run from 50 cows upward, and many ranches are very large in size. Some have sheep rather than cattle. In addition to the cow herd, many ranchers keep yearlings or older steers. Some specialize in these cattle. While land is low priced per acre, a large amount of capital is needed for successful cattle or sheep ranching. About 6 tons of hay are raised for each ton of grain which means little grain feeding of livestock. Crops are minor, only $\$ 3,350$ per farm being raised in 1944.
10. Flint Hills Blue Stem Area-Many steers are summer grazed in this long-grass cattle grazing area in east central Kansas. Cattle often are brought in from Texas and Oklahoma ranches for the pasture season and many pastures are rented on contract to the owners of the steers. Cow herds are not so common. About one-third of the land is in crops, about equally divided between corn, or corn and sorghum, small grain, and hay. Some cattle feeding as well as grazing is carried on, especially on farms with more cropland. About 3 tons of hay are raised for each ton of feed grain. Crops per farm averaged $\$ 2,600$ in 1944.
11. Irrigated Area-The type of farming is sharply different in this section, which occupies part of Scotts Bluff and Morrill counties in western Nebraska and neighboring counties in Wyoming. Some irrigated farming occurs in many places in the Platte River Valley. Wheat and corn are much less important and intensive crops like sugar beets, potatoes, and dry field beans are much more so. Many heavy steers are fattened on beet tops and other feeds.


[^0]:    ${ }^{1}$ Tables 6 to 9 give some of the more important facts about the type-of-farming subareas in the Midwest. The data are approximate as they are taken from a sample of counties in each area. Much variation is found even within these areas. The average size of farm omits very small farms. Land use is that of 1944. More grain and less hay than usual was being grown that year. Yields are the five-year average, 1938-42, for the most part, and generally were good during these years. The acreage needed to bring in $\$ 4,000$ is based on 1944 prices, income, and yields. The cost of feed and livestock purchased was deducted before the gross income was figured. The number given to the subarea is the same as the one shown on the map.

