CHAPTER 4 Choosing the Type and Size of Farm

BEFORE A FAMILY DECIDES WHERE to farm in the Midwest, or anywhere for that matter, three questions ought to be answered: (1) which of the types of farming liked by the family is best adapted to its situation, (2) what are the income prospects for that type in the future, and (3) where should the family locate if they greatly prefer one type of farming over others?

Nearly every area, of course, has more than one "high profit" type of farming and, likewise, a particular "high profit" type of farming is not necessarily limited to just one area. As far as the family is concerned that's all to the good, because it provides a wide choice of localities and increases the family's chances of finding "just what they want." But, as shown in Chapter 2, some areas offer a much wider range of choice than others.

In selecting the farm and type of farming that will bring a high continuing net income, the family should include in its estimate the cost of soil maintenance, the replacement of machinery and buildings, improvements needed, and the number of workers that will be required. It's not good management to produce the income that's wanted at the expense of the farm, nor is it good business to work the family or the hired help excessively hard year after year.

What Type of Farming?

When the family begins to look around for a farm, talks with the county extension agent, bankers, and local farmers will suggest what types of farming are most successful in the area being considered. Even if the area is familiar to the family that's a sensible thing to do, because the more information the family can gather together the wiser its decision will be.

Within the limits set by natural and economic conditions for any area, the type of farming best suited to the family can be determined by considering the following seven points:

1. The man and his family—their interests and special abilities.
2. The size of the farm to be operated and whether owned or rented.
3. The land—its fertility, whether level or rolling, and the kind of soil.
4. The buildings and other improvements.
5. The money or credit available.
6. The outlook for prices and costs.
7. Local market opportunities.

The special interest and ability of the man himself should play a large part in deciding between the types that are available. Does he like to run risks or is he conservative by nature? Does he like livestock or do crops come first in his interests? Is he careful with details or does he like only the bigger jobs? Is he a good buyer and seller?

When they begin farming, most men are not certain of their own interests and abilities. So it follows that the young man should not invest heavily in any one type of operation until he learns by experience how well it fits him.

Some of the important qualifications a farmer ought to have for the major types of farming in the Midwest are given on the following pages.

The Cash Crop Farmer

The man who gets a large share of his income from cash crops must get his work done on time, especially during planting season. This may mean long hours and night work if the

season is unfavorable. Besides having up-to-date knowledge of the best crop varieties for his locality, the cash crop farmer must know the capacity of the soil on his farm for the various kinds of crops. He needs to be well informed, too, about crop rotations, seed treatments, fertilizer requirements, effects of time of plant-

FIG. 17—The Midwest cash crop farmer needs good equipment, an adequate acreage, and skill both in raising crops and handling machinery to keep his business volume up and costs per unit down. The wheat farmer pictured here can cover a lot of ground in a day with a disc tiller. Photo courtesy Deere and Company.

ing, cultural methods, weed and insect control, and other details. Knowing these things may mean the difference between high yields and mediocre ones.

The manager of a cash crop farm needs to be handy with machinery if he is to be efficient and keep his machine costs down. One farmer may keep the same tractor going for fifteen

years while a neighbor with the same acreage wears out a tractor every five years. Because he frequently operates on narrow margins, such variations in cost make a big difference to the cash crop farmer.

The risks that go with this type of farming are fourfold: those of weather, price, disease, and insects. Although they can be covered to some extent by insurance and storage programs, not even the government-operated plans can fully protect a farmer from recurring drouth, floods, hail, frost, or other hazards of nature.

Since he usually is not fully occupied at productive work the year around, the cash crop farmer cannot expect as high an income as livestock farmers of equal ability in areas where both livestock and crop farming fit. But there are things the crop farmer can do to increase his income. One way is work out a rotation that gives a larger total production of high profit crops. A second is to use better crop producing methods, and a third is to lower his costs. If his crop rotation includes soil building crops, they can be used for livestock feed and the manure returned to the land. In other words, he could add a sideline of a few dairy, beef, or dual-purpose cows to his farming plan. Or he might have a small flock of sheep. And if the wife is interested, chickens could be raised for meat, eggs, or both. The farmer, if he has an adequate acreage of crops to care for himself, has little time for chores during the planting and harvest seasons.

The Dairy Farmer

Operating a dairy farm is a year-around job that requires the farmer and his family to accept a steady routine. And because dairying is best adapted to families that like this steady and settled way of life, family labor can be used to advantage.

Income from dairying is regular, partly because there aren't so many risks in this type of farming, but usually it is only moderate in amount. This latter is true partly because the labor requirement per dollar of product produced is high. Capital requirements, however, are less than what is needed for the beef cattle farmer.

Good day-to-day management is a big factor in success on a dairy farm. The dairy cow is a more sensitive animal than most farm animals and she needs quiet, intelligent care. Then, too,

the high labor requirement for dairying means the farmer must have a carefully organized system if he is to get his chores done quickly. Since many jobs are repeated twice a day for 365 days a year, a few minutes of waste motion on any single job add up rapidly over the long pull.

Where dairy products bring a special price, as they do in some milksheds, the farmer may specialize on a medium to

FIG. 18—A good dairy herd like this one from the Dairy Area can efficiently convert a large quantity of pasture and roughage, and some grain into a high quality product—milk. But it takes a lot of labor. Photo USDA Extension Service.

large scale and use one or more steady hired workers. But in the majority of cases, dairying fits a diversified farming system with most or all of the labor furnished by the family.

Plenty of high quality hay and pasture is important to dairy farming. And since hogs do not require a large amount of labor and will use grain not needed by the dairy herd, they fit into a dairying system nicely. Chickens also often make a profitable sideline.

It's not unusual to find cash crops worked into the dairy farming plan, especially those with a high value per acre such as canning peas, beans, potatoes, and other similar ones. Care must be exercised, however, to see that these crops don't compete for labor at critical times. To avoid that, farmers have part or all of their cows freshen in the fall so their labor supply will be released to some extent during the summer for crop production.

The Beef Cattle Farmer

Beef producers belong in two groups: beef cattle *feeders* and beef cattle *raisers.*

Although the cattle feeder must not shrink from the risks that go with this type of business, neither is he wise to be a "plunger." Too often that's fatal. The successful cattle feeder is a good buyer and seller as well as a good producer. He needs a good deal of operating capital for his business, but capital turnover may be rapid. Some of that capital should be his own, but in addition he must have a good credit standing with his banker or other credit source.

While a cattle feeder always tries to buy on a low market and sell on a high, he should expect that narrow price margins will sometimes cause him to feed cattle at a loss. Since feeding margins are seldom very wide, he needs a good deal of volume to bring in much profit. And since cattle feeding requires little labor per head, a large volume of business per man is readily possible.

Because of the high risks involved in buying both cattle and feed, few farmers care to operate unless they can raise a large part of the feed. Fortunately, cattle feeding farms usually produce good crop yields if soil erosion is avoided. The high yields, of course, add to the farmer's income because they increase the feed supply. Some farmers reduce their risk by raising a part of the cattle they feed.

Many older cattle feeding systems depend largely on grain feeding, and there is no substitute for it if well-finished cattle are desired. However, as a means of working cattle feeding into conservation systems of farming, larger use is being made of roughage and pasture.

Most successful feeders do not count on cattle feeding for more than half of their gross income—that is, the gross after

FIG. 19—The cattle feeder must risk a good deal of capital each year with this type of enterprise. It is easy to have a large volume of business with a moderate amount of labor. Here we see choice quality calves in a Corn Belt feed lot.

deducting the cost of feeders. In fact, many say 40 per cent is high enough. The remaining income usually is from other livestock enterprises, especially hogs.

Cattle feeding may be a sideline enterprise for large scale wheat farmers, especially where some grain sorghums are raised.

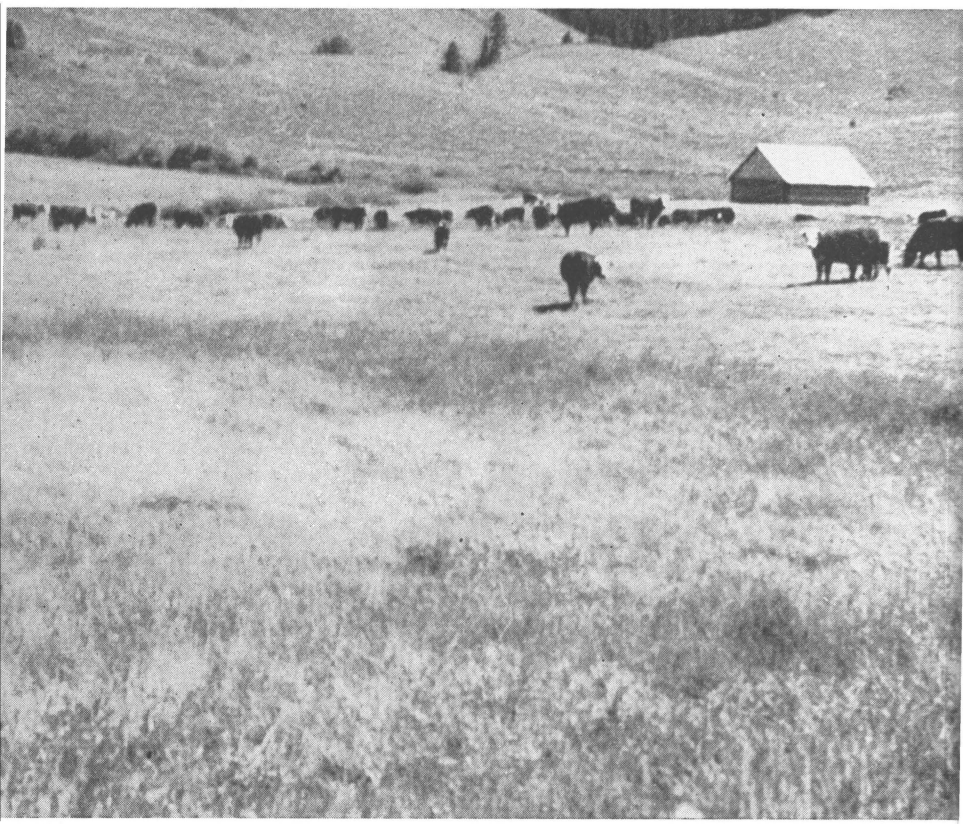

Fig. 20—The cattle raiser has a large investment in the cow herd, especially in the range country where cattle raising may be practically the only farm enterprise.

And the sugar beet raiser also may feed cattle in order to use his beet tops.

Large scale lamb feeding is much like cattle feeding as a type of farming, although even greater skill is needed for success.

The beef cattle raiser fits his enterprise to land that is primarily adapted to grass. And because beef cattle raising and

small scale operations do not go well together, it is mostly on the large, less productive farms that farmers specialize in this business. On small farms with productive grassland, operators tend to favor milking or a dual-purpose type of cattle enterprise.

In the range country, cattle ranches have extensive acreages and large cattle herds. Beef raising here is the main business and it requires plenty of capital and a lot of know-how.

Throughout both the range area and the Corn Belt, however, there are many family-size cattle raising farms. The usual system, where most of the land is in hay and pasture and comparatively little feed grain is produced, is to raise calves for sale as feeder calves or yearlings. Where more cropland is available—in corn or grain sorghums, for example—the calves are fattened as baby beeves or fat yearlings.

Since beef raising uses little labor per head, other enterprises are needed to employ labor profitably, especially if the herd is small. Hogs fit in well where there is enough grain, and some farmers keep a few milk cows to add to the income. Most beef raising farms have a small poultry flock, although some farmers put their extra time into a large one.

A few farmers add sheep to their cattle raising enterprise while others substitute sheep for cattle altogether. When the latter is true, farmers need special knowledge of feeding, diseases, and management of sheep to succeed. Since both cattle and sheep raising frequently return rather narrow margins of profit per head, it is important to keep costs low to have a reasonably good income.

The Hog Farmer

Most men who have reasonable skill with livestock can manage hogs successfully if they really are interested in it. Specialized knowledge is not essential, although extra skill and ability do pay well.

Since hogs don't use much roughage, they are found in largest numbers where corn is the chief crop. They convert grain into food efficiently, and need only moderate supplies of capital and labor.

With the two-litter system, it is easily possible for a single sow to raise enough pigs to make ten times her own weight in a year. By way of comparison, one ewe will produce enough

lambs in a year's time to just equal her own weight, while a beef cow's single calf a year will be only one-half to three-fourths her weight.

Because they require so much grain, hogs nearly always fit into a diversified farming system. They go well with either dairy,

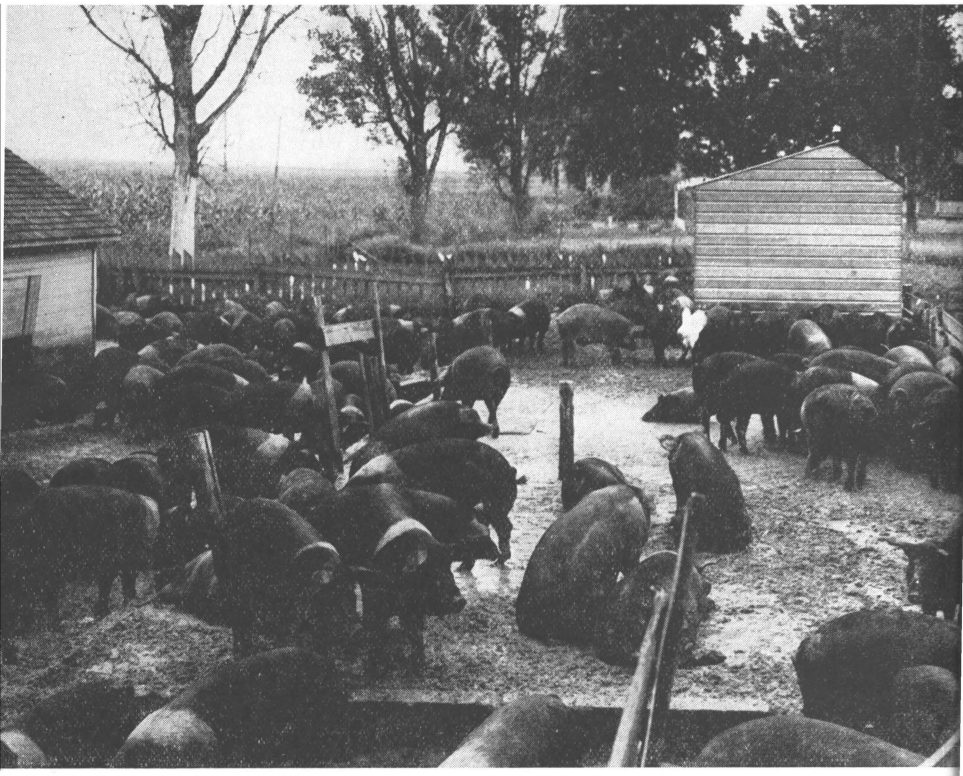

Fig. 21—A great many hogs can be raised with a moderate amount of equipment and labor but they require a large amount of grain. Note the large self feeder in the background on this Washington county, Iowa, farm.

dual-purpose, or beef cattle. Larger sheep flocks and hogs, however, do not work out so well together. Most hog farmers have some poultry, usually a flock of moderate size.

The Poultry Farmer

Even though nearly all farmers keep chickens, not many Midwest farms have a large enough poultry enterprise to

classify the operator as a poultry farmer. But where poultry do provide the main source of income, constant attention and detailed day-to-day management are required of the operator. His success depends a good deal upon how skillful he is in handling disease problems and how efficiently he manages his

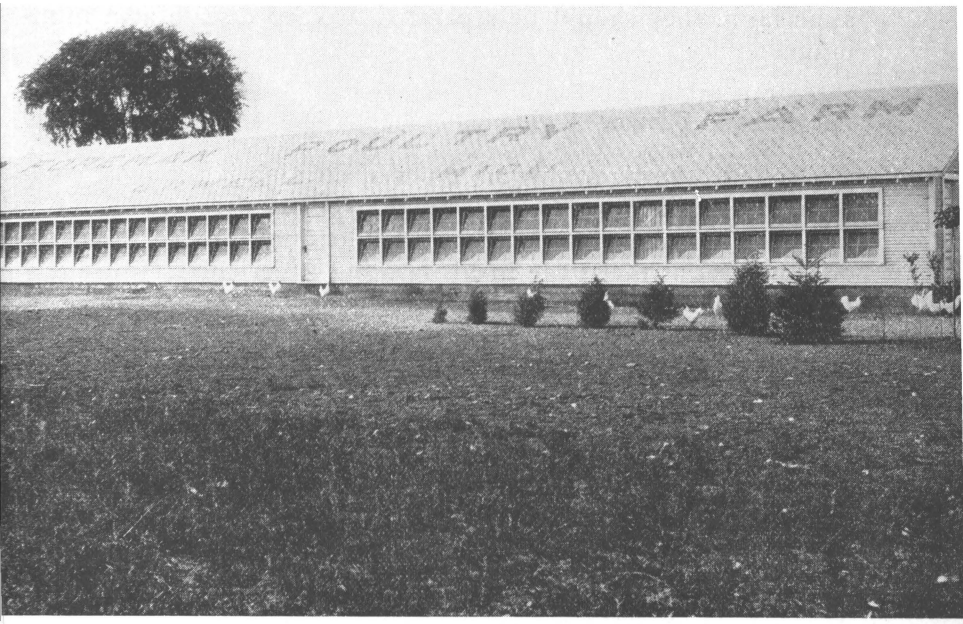

FIG. 22—The commercial poultry farmer has a big investment in buildings as is true on this Michigan poultry farm. Chickens require careful attention where they are kept in large numbers. Photo USDA Extension Service.

large labor and capital requirements. The poultry farmer who is fortunate enough to be located near a special market has a big advantage.

Poultry farms tend to be more specialized than other livestock farms. And in the Midwest this specialization, with the exception of turkey farms, is more likely to be in eggs than in meat production.

As a matter of fact, turkey raising is a special poultry enterprise, even though few farmers go in for turkeys exclusively. It's a specialized business because small operations seldom pay, a high degree of skill is needed for success, and considerable risk

is involved. The operator's investment is large, he usually buys most of the feed, and he must sell his turkey crop at the same time other turkey raisers sell theirs. The fact that heavy weight turkeys often sell for a substantial price discount makes it especially difficult to keep turkeys very long for a better market if the price is low. When turkeys and chickens are raised on the same farm, they should be separated to keep disease at a minimum.

The General Farmer

None of the fore-going six types of farming is the most common in the Midwest. That distinction belongs to general farming. The general farmer is a man who does not want to specialize or is not yet at that stage in his farming experience. He usually has three or four main sources of income, none of which is outstanding in importance. This is especially true of the man who either does not have special ability or is not interested in developing a high degree of skill in some special line.

The Midwest's large number of rented farms provide another reason for the popularity of general farming. If a tenant is not sure of being on the same farm very long, he will diversify his program so he can readily adapt himself to a new farm. Some renters, of course, are quite specialized, but the renter on a small to medium sized farm is likely to be a general farmer. For those who do not have the skill, capital, and other requirements for specialized farming, general farming will be the most profitable system.

Although the total number is not high, many other widely varied types of farming are found in the Midwest. There are fruit and truck crop farms of many kinds, some highly specialized and others diversified. Where soil and climate are favorable, tobacco or cotton farms flourish. There also are purebred livestock farms, fox farms, mink farms, farms feeding garbage to hogs, and other highly specialized kinds of businesses. These farmers, if they are trying to make a profit, must use capital efficiently, get large output per worker, protect themselves from risk, and control costs. In fact, such things will be of equal importance, if not more so, on these highly specialized farms than on the types of farms discussed in this book.

Other Factors Affecting Type

Besides the strictly livestock and crop aspects of farming, there are other points for the family to consider in choosing a type of farming. One of these is the number, size, and kind of buildings and improvements already on the farm. Since cash crops, hogs, and beef cattle require little shelter, these types of farming are easier to adapt to farms with limited buildings. Dairy farms normally require barns built for that purpose, although an ordinary barn frequently can be made into a pen-type barn to fit dairying. Because city milk regulations sometimes are strict as to building requirements, the farmer planning to sell milk to the city market should check them to see that he complies. In poultry farming, large flocks require special buildings and cannot be handled without them. General farms, being flexible, can be fitted to whatever buildings are available.

The capital and credit available to the family will also influence the choice of farm type. Young men tend to favor cash crop farming, general farming, or hog raising because of the comparatively low capital needs. Beef cattle raising, cattle feeding, dairying, and poultry farming, on the other hand, all require larger amounts of capital. On beef cattle farms most of the capital is used as operating capital, while on dairy farms more of it goes into buildings and equipment.

Check Up on Local Markets

Local market outlets also help determine farm type. It is easier to be a successful dairy or poultry farmer where a good local market for the product is available. Specialized crops such as truck garden produce also need a market outlet nearby. But distance from market has little influence on cash grain, hog, or beef cattle farms.

The usual types of farming being carried on in the community will be a good indicator of whether market conditions are favorable for certain types. The family should avoid any type of farming that is not of the usual type for a community, unless the possibilities for success have been studied from all angles. If the type of farming is a good one to follow, chances are many alert families will be engaged in it already.

Table 10 summarizes the requirements for the Midwest's main types of farming.

TABLE 10
Requirements by Types of Farms

Type of Farm	Typical Size—Acres	Acreage Needed		Operating Capital Needed	Minimum Management Skill Needed
		For Grain Crops	For Hay—Pasture		
Cash Grain	Medium to large	Medium to large	Small	Medium	Medium
Dairy	Small to medium	Small to medium	Medium	Medium	Medium
Beef Feeder	Medium to large	Medium to large	Small to Medium	Large	High
Beef Raiser	Medium to large	Small to medium	Large	Medium to large	Medium
Hog	Medium	Medium	Small	Medium	Medium
Poultry	Small	Small	Small	Medium	High
General	Medium	Medium	Medium	Medium	Medium

Size and the Type of Farm

The type of farming selected by the family puts some general limits on the size of farm needed. The beef cattle raiser, for example, cannot have a small acreage and hope to have a reasonably good income. Neither can the cash grain farmer. For both, a large enough acreage to employ their time efficiently is essential for success. The man whose main income is from dairying, on the other hand, probably will do well with a farm of medium size or smaller.

Most farmers expect to put in 2,200 to 2,800 hours of labor per year at productive work. Some are willing to put in longer hours than this, especially younger men who appreciate the value of substituting some of their own labor for the capital they lack or find difficult to get.

A mechanized wheat farmer who raises wheat with four hours of labor per acre would find himself poorly employed on a farm with a capacity of only one hundred acres of wheat. So would a man on a cow ranch with a capacity for forty cows using fifteen to twenty hours of labor per head each year. But the dairyman whose cows and young stock take one hundred

forty hours of work annually for each milk cow would be more than busy if he tried to handle twenty-five cows by himself.

Obviously, it is important for the manager to keep in mind that no matter how skillful he may be, he cannot provide his family with a decent living if the business is too small. His total farm income must be large enough so necessary farming expenses can be deducted and still leave enough for the family. His guiding principle is the one set out in Chapter 3—getting the most income from the resources used, including the use of the farmer's own time. The problem should be studied again and again as a farmer sets up his business and develops the farm plan.

What Size Operation?

Capital, experience, and ability as a manager as well as type of farming to be followed are important factors in determining the right size. Ordinarily the farm that uses the labor of either one or two full-time men to good advantage is easier to manage than a farm requiring the labor of 1½ or 2½ men because part-time help is needed on the latter farms. Of course if there are children at home to help with the farm work, one of the in-between size farms may just fill the bill.

Thousands of Midwest farms are an awkward size to manage because they do not fit an ordinary farm family's labor supply. Many such farms are not large enough to use the family's labor effectively, or they may be more than the family can handle and still not be large enough to warrant hiring steady help. In many places, competent labor is hard to hire for short periods of time. It is better to plan for a size of farm and type of program that does not depend heavily on seasonal labor, unless such farming is generally successful in the area.

The acreage that fits the one- or two-man operation varies widely from area to area. Where livestock farming is carried on, a one-man farm usually will have 50 to 100 acres in harvested crops and a two-man farm from 120 to 180 acres. Where dairying and chickens are important enterprises, the size will run to the smaller acreage because of the heavy labor requirements of these kinds of livestock. If much grain is grown for cash sale, the acreage for one man may run considerably higher. As seen in Chapter 2, acreage for one man in the Plains Area is much larger than farther east.

TABLE 11

Labor Required Per Unit on Family Size Farms in the Midwest*

Crop or Livestock Enterprise	Good Conditions Well Mechanized	Average Conditions Moderately Mechanized	Fair Conditions Little Mechanized
	(hours per year)	*(hours per year)*	*(hours per year)*
Crops			
Corn, 1 A., husked	8	14	24
Fodder (husked or shredded)	21	26	38
Silage	14	25	.....
Oats, 1 A., threshed	8	10	16
combined	3	6	.....
Wheat, 1 A., threshed	8	12	18
combined	4	6	.....
Soybeans, 1 A., combined	6	9	.....
Pototaes, 1 A.	40	70	120
Tomatoes, 1 A.	50	70	120
Alfalfa Hay, 1 A.	10	18	30
Mixed Hay, 1 A.	6	9	15
Livestock			
1 Milk Cow	100	140	160
1 Beef Cow and Calf	20	30	40
1 Young Stock Cattle	20	30	40
1 Litter of Pigs, to market	30	40	50
1 Sheep and Lamb	4	5	6
1 Feeder Steer, 200 days	8	16	.....
1 Feeder Lamb, 100 days	2	4	.....
100 Hens and Young Stock for replacement	160	200	240
1 Horse	40	70	100

* Estimated by the author for farms using a typical size of enterprise for the conditions given. See Chapter 2 for information about various areas in the Midwest.

Table 11 gives the approximate hours of labor required for ordinary crops and livestock under Midwest conditions. By using this table, it is a simple matter to estimate labor requirements of a particular crop and livestock plan for any farm. Hours of labor per unit tend to be higher where fewer acres or units are handled, lower in the case of larger numbers.

In estimating labor needs, the operator should remember that every farm has many small jobs that cannot be charged to any particular crop or livestock. Mowing weeds, repairing fences or buildings, hauling manure—these and other kinds of work are not accounted for in Table 11. To take care of these odd jobs most farms require from one-fourth to one-third more hours of work than the total needed by the crops and livestock directly. Many of these jobs are done in slack periods, so they

seldom interfere with the main farm work at peak seasons. Factors which do interfere with farm work, however, are the number of rainy days and type of soil, because they influence the number of days when field work can be done. Both vary considerably throughout the Midwest.

Businesses—Large, Medium, Small

The average size of business in the Midwest for various groups of farms is given in Figure 23, as adapted from the 1945

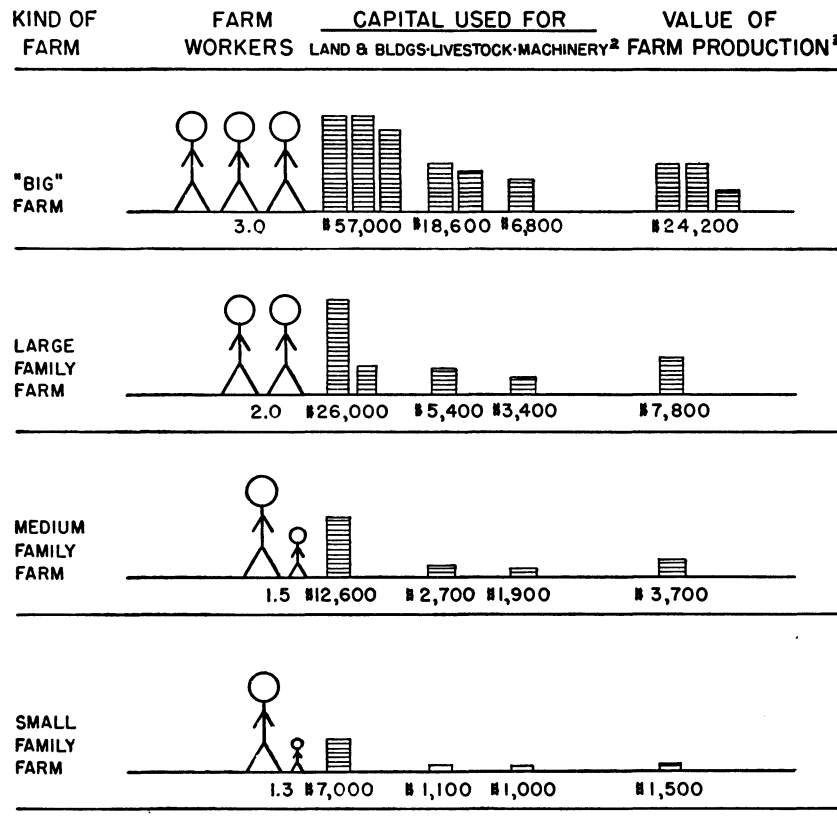

FIG. 23—How capital and labor are combined in the Midwest on large, medium, and small farms (based on 1945 special census of agricultural and related sources). (2) Depreciated value. (3) Gross income less cost of livestock, feeds, seeds, fertilizer, and lime bought.

A farmer must use a good deal of capital to go with his labor if he is to have a satisfactory income, as the figure shows. But using more capital does not guarantee a larger profit.

special census of agriculture and other information. Part-time farms, small holdings, and similar farms are omitted. These are average figures, of course, which means that a great deal of variation can be expected within each size.

Big Farms are highly commercialized. They may be managed and operated by a family, individual, partnership, or corporation, but most of the labor used is hired. Big farms use a great deal of capital. Although some are very successful, especially when prices are rising, many are conspicuous failures. Only a small number of such farms are located in the Midwest.

Family Farms predominate in the central United States. They are divided into three sizes, the main difference being in the amount of capital used for land, machinery, and livestock. While all are managed as a family unit, the larger size farms often keep a steady hired man. Many are rented either in whole or in part.

A significant factor on family farms of small, medium, or large size is the large difference between capital per man and gross income per man. This is very often due to differences in the ability of the farm operator as a manager. Or it may be because of differences in the supply of capital available to various families, or the difficulty some may experience in finding a farm of suitable size. Net income also varies widely among farmers operating farms of each of the four sizes, big farms having the largest income in good years and also the largest losses in other years.

Adjusting the Size of Business

Many farmers find that the business they do is not large enough to furnish the family with a good level of living. They need to study the best method of increasing the size of business so they can add to their income. Occasional farmers, of course, already may be attempting too much. They may need to reduce their operations to increase the profit.

There are four ways for the farmer to increase his size of business: (1) move to a more productive farm, (2) shift to a larger acreage, (3) farm more intensively, and (4) improve the value of what the farm produces.

If it is available to him the farmer's simplest method of increasing his business is to move to a more productive farm.

In doing so, he will be using more capital even though, in the case of a rented farm, the capital is owned by someone else. He also can use more operating capital. Table 12 illustrates several grades of productivity of land with the same farm acreage.

As Table 12 shows, on farms of small and medium size in acres, the farmer gains a considerable advantage by having productive land. For example, the crops and pasture produced

TABLE 12

USING BETTER LAND TO INCREASE THE SIZE OF BUSINESS*

	Farm A	Farm B	Farm C	Farm D	Farm E
Type of farming	General	General and Livestock	General and Livestock	Hog–Dairy	Hog–Dairy
Grade of land	Poor	Fair	Medium	Good	Excellent
Value per acre	$ 30	$ 50	$ 65	$ 75	$ 100
Total acres†	120	120	120	120	120
Crop acres	50	70	90	100	100
Operating Capital	$1,050	$2,200	$2,500	$3,800	$5,600
Value of crops and pasture	$ 610	$ 870	$1,400	$1,730	$2,300
Value of all farm production	$1,200	$1,850	$2,150	$3,200	$4,500
Farm expenses	$ 460	$ 700	$ 750	$1,200	$1,500
Net farm income	$ 740	$1,150	$1,400	$2,000	$3,000

Prices:
Corn $ .52 bu. Milk $1.65 cwt.
Hogs $5.50 cwt. Eggs $ .16 doz.

Wages:
$40.00 per month and board

* Taken from Iowa farm records for 1940.

† Acres are not a good measure of a farm's capacity to produce. The price of land may fairly well indicate how productive it is. In normal times, land prices and productivity are closely related.

on farm A were worth slightly more than five dollars per acre in 1940 while those from farm E were worth nearly twenty dollars per acre. Operating costs per acre were somewhat higher in the latter case, but were by no means as high proportionately as the increase in crop value.

As to labor needed, farmer A used fifteen months of labor to do the year's farm work, all of which was furnished by himself and family. Because of the poor land and little capital that went with it, the farmer's time was not very efficiently used. Farm E

was operated with eighteen months of labor including three months of seasonal hired labor.

The larger amount of operating capital used on higher income farms for machinery, equipment, livestock, and feed, was about in proportion to the productivity of the land.

Operating a Larger Farm

A second way to increase size of business is to operate a larger acreage of land of about the same productivity. If the land and prices are good enough to return a net profit per acre, a larger acreage can return a larger net income provided the operator has the capital and skill to manage it effectively. This is illustrated in Table 13.

TABLE 13

Increasing the Size of Business by Using More Land, Labor, and Capital*

	Average of 10 Farms	Average of 10 Farms	Average of 10 Farms	Average of 10 Farms	Average of 10 Farms
Size of Farm	Medium Small	Medium	Medium Large	Large	Very Large
Type of Farming	Hog–Dairy–Poultry	Hog–Dairy–Poultry	Hog–Dairy–Poultry	Hog–Dairy–Beef Feeding	Hog–Beef–Feeding
Acres per Farm	110	170	230	310	440
Capital Used For					
1. Machinery and Power	$ 1,550	$ 2,100	$ 2,800	$ 3,000	$ 4,600
2. Livestock and Feed	3,150	5,000	5,300	8,300	11,600
3. Land and Buildings	13,200	18,000	23,000	28,000	35,000
Value of					
1. Crops and Pasture	$ 1,950	$ 2,940	$ 3,390	$ 4,170	$ 6,560
2. Farm Production: Total	$ 4,380	$ 5,540	$ 6,540	$ 8,570	$10,960
3. Farm Expenses	1,780	2,400	3,180	4,270	5,660
Net Farm Income†	$ 2,600	$ 3,140	$ 3,360	$ 4,300	$ 5,300
Labor Used: Man-Months	17	22	24	31	33

Prices:
Corn $ .56 bu. Eggs $ .20 doz.
Hogs 8.00 cwt. Milk 1.80 cwt.
Good steers $10.30 cwt.

Wages:
$45.00 month and board.

* Records are from Iowa farms of about equal soil productivity for 1940 and 1941.
† See Figure 24 for individual farm income results on these farms.

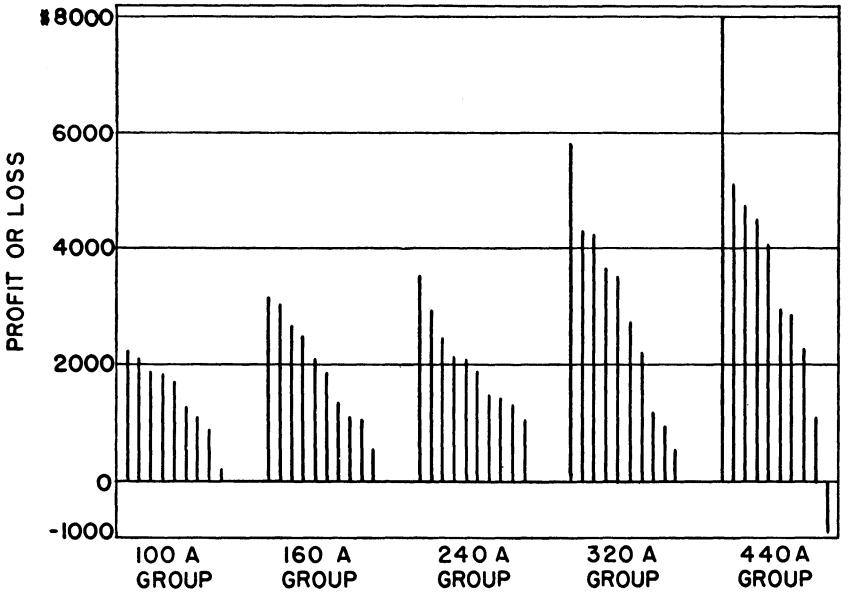

FIG. 24—Profit on good quality Cornbelt farms of five sizes, 1940–41 average. Profit is the income after all farm expenses are deducted including a charge for the farm, capital, and all labor used in the farming business. Each line shows the profit or loss on one farm.

Larger farms have an opportunity for making more profit than small farms but lose more, too, in adverse years. A well managed smaller farm makes more money than the poorly managed larger farm as the chart demonstrates.

Size of farm and capital used are not the only factors that affect farm income, so too much should not be read into the figures in Table 13. These records are from different farms so quality of management is not the same, and there are small differences as well in the quality of the land. Prices may not have been equally favorable for the products produced on the different farms, but when prices were good, as they were in 1940–41, larger farms had an income advantage on the average.

The beginner should not jump to the conclusion that operating a larger farm is an easy way to increase his income. As Table 13 shows, capital requirements go up as the size of farm increases. Risk is greater, more management ability is needed, and the type of farming is likely to change. But in spite of these disadvantages, if the farmer has the capital and the management ability, he can make more money most years on a larger acreage.

Individual profits on the fifty farms in Table 13 are shown in Figure 24. Each line represents an individual farm, and its length above or below the base line shows the average profit or loss for the two-year period, 1940–41. To find the profit, all farm expenses, wages for the operator and family labor, interest on the farmer's own capital, and a charge for all land used were deducted. These profit variations emphasize again the need for the individual to fit his size of operations and plan to his own ability.

Using More Intensive Methods

The farmer's size of business also may be increased by intensifying production. Sometimes this is done by using more intensive crops, that is, by raising crops that require more labor or capital to produce. On livestock farms, it is possible to intensify production by keeping more livestock and buying additional feed. Other ways are to keep livestock with more producing ability or livestock that require more labor.

The cases in Table 14 show how intensifying production can increase the size of business.

Farmers who increase their size of business by this method find that a high degree of efficiency is necessary. And if intensity of production goes very far, additional risk must be counted as a part of the cost. Farm H illustrates both points. In spite of a large volume of sales, comparatively little was added to the production of the farm itself and still less to the net income. In this case, just as much income or more could have been realized from a simpler type of livestock program that made good use of the crops and pasture raised. Instead, this farmer used an elaborate livestock setup requiring large amounts of capital and a great deal of risk with little net gain for his family.

However, as Table 14 shows, when management is good the farm business frequently can be intensified to advantage. Of course, few operators would want to go to the extreme of Farmer I, even though he finds it very profitable. On some farms, the operator would want to intensify in some other direction than livestock feeding.

Selling More Valuable Products

Carrying the product to a higher stage of value is the fourth way to increase the size of business. Some farms do this by

selling a product of higher than average quality or value per unit. Others include retailing the product directly to the consumer as a part of the farm business. Frequently, a special location or selecting an enterprise that fills a special market demand are necessary before this method of increasing the business is wise. Since this method usually requires special ability on the

TABLE 14

INCREASING THE SIZE OF BUSINESS BY INCREASING THE INTENSITY OF PRODUCTION*

	Average of 60 Farms	Farm No. F	Farm No. G	Farm No. H	Farm No. I
Type of Farm	Hog–Dairy–General Livestock	Hog–Dairy–Cattle Feeding	Hog–Cattle Feeding	Cattle Feeding–Hog	Hog–Cattle Feeding
Size of Farm, Acres	120	120	120	120	120
Capital Used For					
1. Machinery-Power	$ 1,800	$ 2,400	$ 4,200	$ 3,400	$ 2,400
2. Livestock and Feed	3,700	4,600	8,800	15,400	10,600
3. Land and Buildings	15,000	17,000	22,000	17,000	18,000
Value of					
1. Crops and Pasture	$ 2,000	$ 2,500	$ 3,300	$ 2,600	$ 2,300
2. Total Income	5,000	8,200	15,700	21,500	45,400
3. Livestock and Feed Bought	1,600	3,600	7,600	17,000	33,000
4. All Farm Production	$ 3,400	$ 4,600	$ 8,100	$ 4,500	$12,400
5. Farm Expenses	1,500	1,900	1,800	2,600	3,900
Net Farm Income	$ 1,900	$ 2,700	$ 6,300	$ 1,900	$ 8,500
Labor Used, Months	18	22	24	24	32

Prices:
Corn $ .52 bu. Milk $1.65 cwt.
Hogs 5.50 cwt. Good Steers $9.90 cwt.

* Greater intensity of production may result in increased net income to the family. However, if not well managed, increasing the intensity of production may lower rather than increase the net income. It also increases the risk. Taken from Iowa farm records for 1940.

part of the farmer to make it a success, a good many who try it find their income is smaller rather than larger. It is important, therefore, to study personal ability and local conditions carefully before undertaking this method.

Table 15 shows how farms increased business size through the sale of specialized or high value products.

TABLE 15

Increasing the Size of Business by Selling a Higher Value Product*

	Farm J	Farm K	Farm L	Average of 150 Farms
Size of Farm, Acres	160	160	160	160
Type of Operation	Hybrid Seed Corn–General Farming	Turkeys and General Livestock	Retail Dairy	Hog–Dairy–Cattle Feeding Poultry –
Capital Used for				
1. Machinery-Power	$ 3,400	$ 2,400	$ 2,300	$ 2,200
2. Feed, Seed-Livestock	6,500	4,600	5,600	5,500
3. Land-Buildings	21,000	22,000	24,000	19,000
Value of				
1. Crops and Pasture	$ 2,600	$ 2,500	$ 2,600	$ 2,200
2. Sale of Special Products	$ 1,900	$ 5,500	$ 5,400	$————
3. Total Income	6,300	14,000	10,500	6,000
4. All Production†	5,800	7,100	8,800	4,700
5. Farm Expenses	2,700	2,600	3,400	2,000
Net Farm Income	3,100	4,500	5,400	2,700
Labor Used, Months	20	24	33	20

Prices:
Corn $ .52 bu. Hybrid seed corn $3.50 bu.
Hogs 5.50 cwt. Turkeys .16 lb.
Eggs .16 doz. Retail Milk .09 qt.

Wages:
$40.00 per month and board

* Taken from Iowa farm records for 1940.
† Income less cost of feed and livestock bought.

Diversify or Specialize?

The old adage "don't put all your eggs in one basket" raises the question of whether a farmer should divide his attention among many enterprises or concentrate on a few.

More enterprises on a farm often mean lower risks. If prices fall, for example, the price of everything a farmer has to sell seldom falls at the same rate. Thus a combination of beef cattle, milk cows, sheep, hogs, and chickens is decidedly less risky than beef cattle and hogs alone. Moreover, with more enterprises, unforeseen trouble from weather, disease, or insects will have less effect on the total business.

Diversified farming also makes it easier to work out a uniform labor load throughout the year. Not only will there be fewer peak labor periods, but diversification makes for steadier

year-around employment. In some cases diversification helps increase crop yields by permitting better rotations or providing more manure.

But all the advantages are not on one side. Take price risks for example. Diversity gives more protection from falling prices, but it also acts as a brake when prices rise. The specialist can much more easily expand one enterprise to take advantage of an expected major price rise.

Some farmers diversify too much. With many enterprises to look after, a farmer may so dilute his time, energy, and knowledge of detailed management that the efficiency of the whole operation is lowered considerably. Then, too, extensive diversification may mean that equipment is not efficiently used. The specialized hog raiser, on the other hand, may use one set of equipment and buildings for two or even three litters per year and thereby reduce costs. That is no small factor when equipment investments are high. With specialization, a farmer can take time to become an expert in one or two fields while few can learn to be an expert in half a dozen. Also, each person has natural abilities that are greater in some lines than others. It usually pays to make intensive use of the farmer's best ability.

Your Age and Specialization

As a farmer grows older, he should make some variation in how much he specializes. A young man with limited capital cannot diversify greatly or he will spread his money too thinly. But neither can he specialize very much. Depending on his opportunities, he picks enterprises which have small risks, quick turnover, and which require moderate amounts of capital. He needs to strike a reasonable balance and keep himself employed on a year-around basis. If he is not able to do this, it might be wise for him to find off-the-farm work during slack periods.

As soon as he fully understands his starting enterprises, he can try others. By broadening his field gradually, he can see if he has the most profitable combination as well as find out about any special ability that he may not yet have discovered in himself. In other words, the first ten years or so of farming should be something of a period of finding oneself.

If a man finds that he has special ability and can obtain enough capital, he may then specialize. Most farmers with the

highest average net income specialize to a considerable degree. But so do those that lose the most money. The difference is in their *ability as managers* and in *when they specialize.* A highly skilled manager can afford to specialize, while one with medium to low ability as a manager had better choose a diversified program made up of enterprises where the risk is low and only moderate skill in management is needed.

It is not unusual for men past middle age to shift their type of farming. If they have been successful, they look for a type that does not require so much of their time and energy in active work. They expect their capital to produce more of the income, and their labor less. Their judgment and management skill have been proved by this time. But at middle age and after, they do not like to be closely tied down with day-to-day details. The resources they have to use in farming at that time of life are quite a different set than those they used as younger men. By adjusting their farming they can make the maximum use in their older years of their capital, experience, and ability.

Tables 14 and 15 in this chapter show that the seven farms F, G, H, I, J, K, and L are specialized. Most of these were operated by men near middle age who started out without much specialization. As they learned more about farming and developed their special skills, they decided to intensify their operations rather than to expand their acreage. Farmers G, I, K, and L were highly successful as indicated by the large net income they received.

Farmer H also specialized, but far less successfully. He didn't develop the necessary skill for specialization. The result was that he made less profit than farmer F who did an excellent job without going much beyond the feed he raised. Nor did farmer H make any more profit than farmers D and E who used less than one-third as much operating capital and were not specialized. Even so, specialization can pay well, but only for the man who has the necessary experience and skill, the capital, and credit to carry it through, and only when prices for the specialized product are favorable.