

Getting Started In Farming:
Part-Time or Small Farms



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What is a part-time farmer? In general, a part-time farmer usually lives on and operates a small farm but receives a major portion of the family income from employment off the farm. There is evidence that the number of "part-timers" is growing. According to the 1974 Census of Agriculture, 370,252 farmers in the 14 North Central states worked 100 or more days off the farm. This represented 31 percent of the total farmers in these states.

The reasons for the large number of part-time farmers are as varied as the goals and desires of the individual families. Many families become part-time farmers unintentionally. They simply

want to live in the country and discover they have varying amounts of land that came with the house. Other families who live in the country are part-time farmers to supplement their off-farm incomes. And, some families may be trying to get started in farming. Perhaps, others are looking for a "hobby farm" for relaxation or investment.

There are several key questions and considerations for families thinking of part-time farming. The purpose of this publication is to help families decide:

- Should we try part-time farming?
- How to select a part-time farm.
- How to organize and operate the farm.



Should We Farm?¹

In deciding whether to farm on a part-time basis, look at both the advantages and disadvantages. Then decide just how the family goals match up. If it appears that a part-time farming operation is desirable, then decide how the resources (land, labor, machinery, etc.) and enterprise alternatives can best be combined to meet the family goals or farming objectives. Then, work out a long-range plan, follow it, and make revisions as necessary.

Advantages and Disadvantages of Part-time Farming

• *Advantages* The farm provides open space and learning experiences for the children. It can provide a measure of security and a hedge against inflation if the land is owned. If the family is able to furnish the necessary labor and management and chooses the right enterprise(s), the farm could supplement cash income. A family may be able to live a little less expensively on a farm than in town, especially if they produce some of their own food.

The physical labor of the farm may have a therapeutic effect on white collar workers and professional people. Unfortunately, this same physical labor can become overpowering and a drudgery to those who are not accustomed or conditioned to it. Finally, air pollution may be less in the country than in town.

• *Disadvantages* Advantages for some become disadvantages for others. (Example: the distance from town and from other neighbors may mean privacy for some people but isolation for others.) Part-time farm families can expect higher transportation costs, especially if members of the family take part in many activities in town.

Farm life can become confining and boring to family members, particularly if they select enterprises that conflict with their goals and desires. For example, some livestock enterprises must be tended every day. Loss of a crop or an animal is always somewhat traumatic. But it may

be even more devastating to a part-time farm family who may not have the commercial farmer's philosophy on these inevitable losses.

Losses due to market conditions may be catastrophic to people who are unaccustomed to farm price fluctuations. Finally, although air and water pollution may be less or different in the country than in town, they are not eliminated. (The family may simply exchange industrial smoke and car exhaust fumes for animal waste odors and weed pollens.)

The ultimate success of a farm operation depends on how well the individual or family members are able to cope with potential disadvantages, or how strongly they feel the advantages of farm life outweigh the disadvantages.

Family Goals

A farm is a family proposition, especially if the family members are expected to furnish part or all of the labor involved in operating it. Therefore, the decision to farm involves goals or desires of all family members. Outside activities as well as off-farm jobs should be factors to consider.

Farm families should take account of both present and possible future interest areas. Off-farm activities do not prevent a family from farming. However, the nature of off-farm activities and the time involved should be considered, especially when selecting an enterprise.

Why do you want to farm? What do you expect the farm to give you? Answers to the following questions can help you decide.

• Will the farm be expected to furnish part of your family livelihood? If it operates at a loss for a few years, can the family accept a loss?

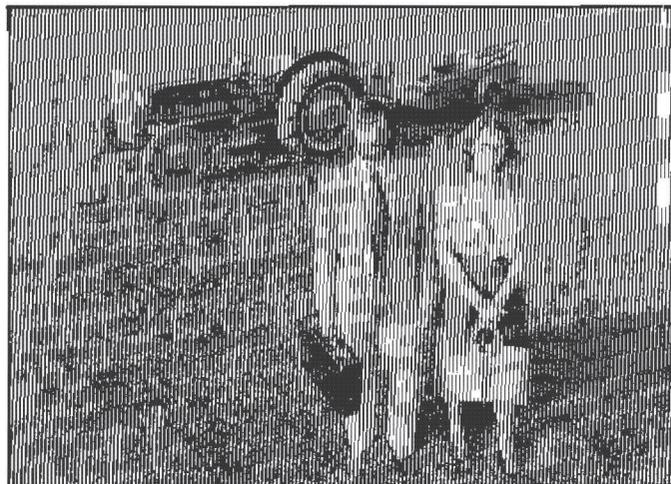
• Does your family really want a place to live in the country, with farming as a secondary issue? Would a "breakeven" operation be satisfactory?

• Is the main purpose of the farm to furnish employment to under-employed family members? Are there other preferable alternatives?

• Would your family be better off just living on or visiting the farm and renting out the farm real estate to someone else, or possibly even letting it stay idle?

¹Adapted from *Farm Management For Part-Time Farmers*, authored by John E. Brockett, Cooperative Extension Service, Pennsylvania State University.

Selecting a Part-time Farm



Unless you already own or inherit a farm, you will need to look for one that offers the opportunity to achieve desired goals. For example, if one of your prime objectives is to develop a livestock operation to produce additional family income, you should look for a farm that will permit development of such an operation.

If you are looking for just a place to live in the country, enjoy a garden and living things, then a smaller operation in a lovely setting might better meet your goals. Once you have decided on the type of farming unit you are looking for, the following are some key factors to keep in mind in selecting your part-time farm.²

- *Location* Choose a location within easy commuting distance of both the regular job and other employment opportunities. Then if you change jobs you won't necessarily have to sell the farm. The presence of alternative job opportunities also will make the place easier to sell if that should become desirable.

Look for a farm in a neighborhood of well-kept homes. There are slums in the country as well as in the city. Few rural areas are protected by zoning. A tavern, filling station, junk yard, rendering plant, or some other business may go up near enough to your home to hurt its value.

Check on the schools in the area, the quality of teaching, and the provision for transportation to and from them. Find out whether fire protection, sewage system, gas, water mains, and electrical lines are available in the locality. If these facilities are not at the door, getting them may cost more than you expect. You may have to provide them yourself or get along without them.

You cannot get along without an adequate supply of good water. If you are considering a part-time farm where the water must be provided by a well, find out if there is a good well on the farm or the probable cost of having one drilled. A pond may provide adequate water for livestock and garden. Pond water can be filtered for human use, but most part-time farmers would not want to go to so much trouble. Shopping, services, and other facilities are also important considerations.

- *Topography and soil* Is the land suited to the crops you intend to raise? If you can't tell, get help from your County Agricultural Extension Agent, Soil Conservation Service, or other local advisors. Soil type, drainage, or degree of slope can make the difference between good crops and poor ones.

- *House* Will the house on any part-time farm you are considering make a satisfactory full-time residence? How much will it cost to do any necessary modernizing and redecorating? If the house is not wired adequately, properly insulated, or if plumbing or a central heating system must be installed, check into the cost of making these improvements.

- *Investment potential* The type of farm and the price you are willing to pay for your part-time farm will depend on: (1) what it is worth as a place to live, (2) the economic potential for raising crops and/or livestock, and (3) the possibility of continuing inflation or rising market value for such property.

It is pretty difficult to place a dollar value or cost on living in the country. But, if the advantages outweigh the disadvantages for your family, then this can be taken into account in what you will pay for the farm. The economic potential is another consideration, particularly when the farm's earnings must support some of the cash flow needs . . . operating costs as well as principal and interest payments. Careful attention should be given to selection of enterprises that offer this earnings potential.

Finally, you may be in the position to hold the farm property for a substantial gain over the original purchase price. This will depend on the demand for land in the area and development potential.

²Adapted from *Part-time Farming*, Farmers Bulletin No. 2178, USDA, 1968.

Organizing and Operating the Part-time Farm

In organizing and planning the part-time farm, you should consider:

- your available resources
- which enterprises best fit the family and the resources
- the “mix” of enterprises and resources.

Let’s look at available resources for part-time farming. These include those which are owned at present or can be readily obtained. Table 1 (page 8) and 2 (page 14) give a summary of the resource requirements for enterprises.

Land Both quantity and quality of available land are important in choosing enterprises for a part-time farm. Some crops require soils that are deep and well drained; others can be successful on farms with a broad range of soils; while still others may require some special factors such as topography or air drainage that make soil quality itself secondary. Some enterprises may require relatively extensive acreages to be economical because of market demands, low unit returns, or relatively high capital investment. Other enterprises that use land more intensively may require only a few acres to be equally feasible.

● *Labor* The labor requirement should be considered from several viewpoints: (1) the amount of labor required and when most of it will be needed (peak season); (2) the relative skills needed to handle a particular enterprise and the need for those doing the work to make minor management decisions; (3) the importance of doing a job within a given time period and possible conflicts with other tasks in the overall operation; and (4) in the case of crops, the relative amount of manual labor required and available.

● *Capital* Capital often becomes the restricting resource in farming. In many cases a part-time farm family might be wise to start small or within the limits of readily available capital. After they have developed the experience and skill required, they can expand and operate the farm on a larger scale if they desire. This would also give them the chance to see if they have the necessary enthusiasm and desire to continue.

Credit is one way to increase available capital. If used wisely, credit can become a valuable asset to the business. If misused, it can soon turn into a personal catastrophe. Part-time farmers can use part of their off-farm income to make farm credit repayments. Part-time farmers who need to use credit should carefully consider: (1) how much they need to do the job, (2) what it will accomplish, (3) where and when they will get the money, (4) what it will cost, and (5) how it will be paid back.

Some enterprises require considerable capital expenditure and passage of time before a saleable item is produced. Examples would be fruit trees or livestock breeding herds. Some enterprises require several types of capital expenditures. The capital items may have different lengths of time over which to amortize the cost. For example, a dairy cow enterprise requires capital expenditures on buildings which have a life of 20 to 25 years, equipment which has a life of 5 to 15 years, and the cow herself with a productive life of 3 to 5 years. Other enterprises will require little or no capital expenditure if basic land and buildings are available. Examples would be feeder pigs or field crops.

● *Machinery and equipment* Machinery and equipment can help reduce labor but they cost money. The size and cost should be carefully weighed against the hours of equipment use and potential income. Hiring custom work for particular jobs may be more economical than owning the required equipment.

● *Buildings* Buildings can be an asset to nearly any farm operation. However, some enterprises can make use of nearly any existing structure with little or no additional cost, while others require specialized, expensive structures. The buildings you already have available may be considered when selecting an enterprise, but the buildings should *not* completely determine the choice of an enterprise. For example, having an old dairy barn does not necessarily indicate you should buy milking cows. It could be readily converted to a hog farrowing unit.

● **Markets** Markets must be considered when selecting an enterprise. Some products such as field corn or beef cattle can be sold in a number of markets. Some products such as strawberries are primarily local market items and require easy access to relatively limited or special demand markets.

Some specialized products such as sweet corn, tomatoes, and broilers require a marketing contract unless you can develop your own market on the farm, at a roadside, or find some other way to contact local buyers. A few cities are reviving Farmers' Markets as a place where small farmers can sell produce.

When selecting an enterprise, a farmer should consider: (1) available markets, (2) transportation means and costs to get the product to market, (3) potential returns from the available market, and (4) market limitations.

Market availability means a place to sell the product at a return that could be expected to be profitable. Market limitations include such things as the number of potential customers within the market area, local demand for product, or perishability of the product.

● **Management** Some enterprises require relatively high involvement and supervision by farm operators (example: dairy cows). Other enterprises would require intermittent periods when a lot of time is required. Some of these enterprises would be more compatible with most off-farm jobs (examples: sows; Christmas trees). Some enterprises require only occasional high management involvement (example: beef cows).

● **What size of enterprise?** Each enterprise has a size that might be judged as the minimum to be considered economical or practical even for a part-time operation. This is the size that will: (1) at least pay the cash costs of the enterprise itself, (2) justify the family's capital and labor to support the enterprise, and (3) provide enough saleable units to give the family access to at least one market.

Variations in minimum size occur within as

well as among enterprises, depending on additional capital requirements, degree of mechanization desired, legal regulations, and competitiveness for markets.

Efficiency and Cost Control

Most part-time farmers will want the enterprise they choose to at least cover the out-of-pocket costs. In order for this to be accomplished, (a) attention must be paid to the efficiency of the operation and (b) cost control must be practiced.

Efficiency refers to the amount of output realized relative to the inputs that went in. For example, how many pounds of feed were required to get a pound of gain? Or, how much additional yield was realized from the fertilizer or herbicide applied? Bigness does not guarantee efficiency; nor does smallness dictate an absence of efficiency. Some of the most efficient operations are "small" as far as size in acreage or even number of animal or crop units.

One area in which part-time farmers frequently err is in over-feeding. Animals get too much feed and get overly fat. Another area which contributes to inefficiency is improper choice of feed or other inputs. Animals cannot grow most efficiently if they do not have the proper balance of feed ingredients. Crops will not produce as much as they can if some element of fertility such as lime or nitrogen is not present in a large enough quantity in the soil of your fields.

Cost control refers to keeping expenses reasonable. Spend money only if it will generate money. Shop around for major purchases. Avoid major investments in low return items like fancy barns and fences. Choose appropriately sized buildings, equipment, or machinery if you must buy. Don't contract "new paint fever;" a used machine will frequently suffice at a much lower initial cost. Consider hiring someone else to perform specialized operations. Trading labor for services or the use of someone else's equipment can be an effective cost control measure.



Livestock Enterprises for Part-time Farmers

Livestock enterprises have advantages to part-time farmers. They can (a) market forages that might not otherwise have a market, (b) market grains through the livestock, giving higher price for the grain, (c) utilize labor or capital, (d) maintain fertility by returning manure to the land, and (e) give pleasure.

Livestock are not without problems. Animal waste can be a disposal problem, as well as a source of odors and flies. Some enterprises require rather specialized and expensive buildings or equipment. Time demands during certain periods can be extensive and inconvenient (for example, lambing or sow farrowings frequently come in the middle of a cold winter night.)

Some general comments on beef, swine, dairy, and poultry follow. More specific requirements and considerations are presented in Table 1.

Beef enterprises There are several beef enterprises from which to choose. They range from the relatively low risk cow-calf and yearling "grass steer" operations to the higher risk and potentially higher return cattle finishing enterprise.

The cow-calf operation has a 350 to 500 pound feeder calf as its saleable product. Yearling "grass steer" operators buy 400 to 600 pound feeder animals and feed them to a finished weight of 1,000 to 1,200 pounds. Dairy beef enterprises start with dairy or dairy-cross calves. They also can be sold as 400 pound feeders for others to feed or at weights of 1,000 to 1,200 pounds as finished dairy beef. Or you may prefer to try the feeding enterprise only, buying the 400 pound calves and finishing them to the 1,000 to 1,200 pound weight. It may take 16 to 20 months to raise baby calves and feed them to beeves.

The profitability of these beef enterprises varies with the cattle cycle, grain prices, and general economic conditions. Your County Extension Service Center should have current profit estimates.

In general, beef enterprises have relatively low labor requirements and can make use of family labor. Chore time is flexible, too. Capital

investment can be kept low per unit if the farmer is careful. Several beef markets are available in most areas. Most beef enterprises can make extensive use of home-raised forage. This reduces cash expenses. The yearling "grass steer" has an additional advantage in that the producer has his money tied up in the animals for only a fairly short time (5 to 6 months).

Unfortunately, beef enterprises usually have a relatively low net return and slow capital turnover per unit. Capital turnover refers to the time required for income from an enterprise to equal the investment in the enterprise. It is common to have \$2,000 capital, or more, invested in a beef cow and pasture. If the sales from the cow are \$200-300 per year, it takes 7-10 years for capital to turn over. This would be considered slow capital turnover.

Dairy enterprise Dairy enterprises will not easily fit into most part-time operations. Dairy cows require (a) intensive labor and management, (b) an inflexible daily labor schedule throughout the year, and (c) a high per unit capital investment. In addition, milk and milk products are highly regulated and must comply with the most stringent health regulations. Dairy cow enterprises have potential net cash returns of \$400 or more per cow per year. However, they have a relatively high labor requirement of 60 to 100 hours per cow per year.

Part-time farmers may want to consider two types of dairy heifer replacement programs. In one you buy heifer calves and sell them at 22 to 30 months of age as bred heifers or fresh cows. The other type of program is to contract with one or more dairymen to raise heifers for them. Labor is somewhat higher per head than that required for beef but lower than that for dairy cows. Heifer raising operations have a potentially higher return per head than beef enterprises. Dairy heifers, like beef animals, can make extensive use of home-raised forages (pasture, silage, and hay).

Disadvantages of heifer raising are: (a) the time from purchasing the baby calf until sale of

Table 1. A Comparison of Alternative Livestock Enterprises

Enterprise	Unit	Heavy Labor Period	Hr./Unit/ Year	Level of Mgmt.	Land Area	Capital Turnover*	Bldg/equip. Investment	Annual Cash Exp.	Units to Average \$2,000 Above Costs
Beef Cows	1 Head	Calving, Winter Feeding (2-5 mo.)	7-12	Low-Med.	High	Slow	Low	\$70-100	25-35
Grazing Steers or Heifers	1 Head	Upon Arrival (2-4 wks)	2-4	Low-Med.	Moderate to High	Moderate	Low	\$25-35 + Cost of Animal	50-80
Dairy Cow	1 Head	All Year	65-85	High	High	Moderate- Rapid	High	\$350-600	8-15
Raising Dairy Heifers	1 Head	While Young (2-6 mo.)	10-20	Med.- High	Moderate	Moderate	Moderate	\$200-275	30-40
Producing Feeder Pigs, 2 Litter System	1 Sow	Farrowing + Growing (4-6 mo.)	20-30	High	Low	Rapid	Moderate- High	\$300-400	15-25
Farrow to Finish, 2 Litter System	1 Sow	Farrowing + 2 Weeks (Nearly Year-round)	30-50	Med.- High	Low	Rapid	Moderate- High	\$800-1000	7-10
Fattening Hogs	1 Pig	Upon Arrival (3-4 wks.)	1-3	Medi- um	Low	Rapid	Low- Moderate	\$40-60 + Cost of Animal	175-225
Sheep	1 Ewe	Lambing, Winter	2-5	Med.- High	Moderate	Moderate	Low- Moderate	\$30-40	60-80
Fed Beef	1 Head	Upon Arrival, then Daily	2-3	Medi- um	Low	Moderate	Moderate	\$245-500	25-40
Turkeys	1000 Birds	Entire Period	100-200	Med.- High	Low	Rapid	Moderate- High	\$1000-2000	3-4,000

*Time required to recover dollars tied up in this enterprise.

the animal is relatively long and (b) labor and management requirements for raising dairy heifers are higher than those for most beef enterprises.

Swine enterprises Several swine enterprises are suitable for part-time farmers. However, hogs are usually more confining and require a higher level of management than cattle. Hogs require grain for feed. Grain is usually more expensive per pound than forage. Sows can be bred to produce two litters of baby pigs per year. The baby pigs could be sold as feeders at 40 to 60 pounds or finished out to 210 to 240 pound market hogs. Hog production is handled by some farmers as an intensive operation on a relatively small area. They manage the breeding program so an almost continuous use of the farrowing facilities can be accomplished. Farrowing facilities are usually the biggest investment. If a part-time farmer wants to eliminate the heated farrowing house (and the associated capital investment), he can farrow just one litter per year on pasture during warm weather. This lowers capital requirements but also decreases potential net cash returns.

Market hogs can be produced in conjunction with a sow operation or as a separate enterprise (purchased feeder pigs). Finishing hogs for slaughter is a relatively low risk, low labor enterprise with fairly rapid cash turnover from purchase to sale. Potential net cash returns have a fairly wide range, but are generally positive.

Sheep enterprise Sheep require little labor except at lambing time. Farm produced forage will provide most of their feed. They do not require much investment in buildings or equipment, but fencing costs are 25¢ to 50¢ per foot for material (a 10-acre pasture will take approximately 2,500 feet). Dogs and coyotes can be a problem because sheep are more prone to panic than hogs or cattle. Finding sheep shearers and markets may be problems in some areas. Labor requirements can become quite high at lambing time since many ewes may need assistance, especially with multiple births. However, overall labor requirements are relatively low when spread through the year.

Poultry The poultry industry has become so large, mechanized, and specialized that few part-time farmers are likely to be competitive. However, if large amounts of family labor are available, turkeys or a laying flock might be considered. Both pay fairly high returns to labor, but capital requirements and risk can be quite high. Access to a good market, a feed supply at reasonable prices, and dependable labor are essential. Less land is required than for most other enterprises, but there are odor and waste disposal problems which should be thoroughly evaluated before a decision is made to raise poultry.

Production Management Decisions for Livestock Farmers

Management is probably the key to success with livestock, especially for part-time farmers. As a part-time operator, time for "farm work" is often so limited that the temptation is to do just the obvious jobs. Thus, equipment may be neglected and used until it breaks down, or an animal dies because the part-time manager did not have time to observe his herd or flock at a critical time.

Six major decisions a livestock farmer must make are:

Selection of a livestock enterprise - or enterprises The livestock enterprise must fit the abilities, resources, and preferences of the farm family. If crops are to be grown, what livestock enterprises most logically fit with the crops? Generally, only one livestock enterprise should be undertaken by a part-time farmer so management abilities can be concentrated and high levels of performance attained. A family, however, may choose to raise their own meat, produce their own eggs, or have several enterprises for children in 4-H or FFA.

Selection of animals In choosing the initial and replacement animals, one must decide: (a) which breed; (b) what quality; (c) the number to get; (d) health standards to follow in selection; (e) what age animals to buy and, if a breeding herd, whether to buy open or pregnant females; and (f) where to buy them.

Feeding program The manager must decide on the quantity and quality of feed and set up the feeding program.

Breeding For breeding herds or flocks, some decisions are: (a) selecting and sire breed; (b) whether to use natural or artificial insemination; and (c) in the case of cows, whether to make a pregnancy check.

Culling Even the best livestock operations can contain unproductive or unprofitable units. Some animals in breeding herds or flocks may show up as "hard breeders," "poor mothers," low producers, and sick or over-aged animals. The manager must set culling standards that will assure a potential profit for the business.

Purchase of capital items Capital expenditures are made with the anticipation of using the item for several years. The usual capital expenditures for breeding operations are for breeding animals, buildings, storage, and equipment. Decisions on the purchase of these items will have an effect on financial welfare for several years.

When making decisions on these investments, the manager should answer a number of questions such as: (a) Is it financially and technically feasible? (b) How will I pay for it? (c) Will it do the job? (d) Is the item really necessary for the success of the business? (e) Will the item increase the value of my property to the extent of the cost of the item? (f) Will the farm pay for it? (g) What additional expenditure may be necessary to support the item if it is purchased?

It is easy to invest more in buildings or other items than is economically justified. Discuss your ideas with others who have tried what you are considering before committing yourself to expensive improvements.

Of course, there are other decisions on such things as animal health care, when to perform certain jobs, and which records should be kept. All are part of the manager's job.

Crop Enterprises



Wide variations in climate, soils, labor availability, and markets result in widely different farming and cropping systems. Even within a given locality there may be considerable diversity because of variations in farm size, custom, and farmers' preferences and goals.

For a given farm, the composition of land, the amount of labor and its availability during the year, and the strengths of management will also influence enterprise choice. In some areas, choice of crops will be heavily influenced by the livestock enterprises because the livestock enterprise(s) will be primary and crops will be secondary. In major cropping areas, the crops may be chosen first and the livestock system, if any, fitted to the crop plan.

If profits are important, a part-time farmer will want to select the highest profit crop adapted to his soils and use that crop on as many acres as possible. This assumes adequate labor is available or can be hired if you are growing the crop yourself. If the bottleneck is labor or machinery, rather than land, a crop other than the one generally considered "highest profit" may be more practical. A general summary of major Midwestern crops follows. More specific information is included in Table 2.

Field crops Field crops are attractive to part-time farmers because of (a) low labor requirements, (b) higher net returns than most forage crops, and (c) lower annual cash outlay than fruits or vegetables. Two other advantages of field crops are: (a) it is easier to mechanize the field crop operation, and (b) field crops can be readily marketed in the open market or fed to livestock on the farm. The main disadvantage is the relatively large acreage requirement to justify the capital outlay for equipment or hiring custom operators to plant or harvest the crop(s).

Corn Corn is a high profit crop, particularly in the areas with better quality soils and adequate moisture. It usually gives the highest return per acre and per hour of labor, if well managed. It also has the highest out-of-pocket or annual cash costs per acre. It is not unusual for cash costs to exceed \$100 per acre for the part-time farmer who hires

someone to apply chemicals and fertilizer and harvest the crop. Corn also requires a higher level of management than most other crops.

Soybeans This crop gives a high net return, occasionally exceeding corn. The cash production costs per acre are generally substantially below corn. For late plantings (after May 30) soybeans are often more profitable than corn. Soybeans, in combination with corn or grain sorghum, may also extend both the planting and harvest season, thus permitting a given amount of labor and equipment to be spread over a longer period. This may be particularly important to a part-time farmer.

Grain sorghum Grain sorghum withstands drouth, floods, and wet conditions better than either corn or soybeans. Thus, on soils most subject to drouth damage, sorghum may be more profitable than corn or soybeans in certain climates. Also, grain sorghum can be planted considerably later than corn. Because grain sorghum requires some processing before use as an animal feed, it usually sells at a slight discount to corn.

Wheat Wheat is usually not as profitable as corn or soybeans. On drouthy or erosive soils, however, it may be more dependable—and profitable. Machinery investment will be less than for row crops. Because of higher average yields resulting from improved varieties and cultural practices, wheat is becoming more competitive, economically, with the row crops. There is also likely to be less erosion from land planted to wheat than from row crops like corn and soybeans.

Double cropping The practice of planting a soybean crop after the harvest of wheat or barley has expanded where the growing season is long enough. Refinement of no-till planting systems combined with better herbicides has contributed to this practice. When managed properly, double cropping can bring profits that compare favorably with profits from both corn and soybeans. Better than average management is required.

Oats Oats is a lower profit crop than the others described above. It is frequently used as a nurse crop for forages. This means it is planted with the grass to shade it and help hold the soil while the

tender shoots are getting started. Oats add returns while making the transition from row crops to forages. Oats are best adapted to rotation programs and on dairy or sheep farms.

Hay Some part-time farmers in forage deficit areas have found hay production to be a profitable enterprise. Hay is particularly suited to small, irregular, or rolling tracts. Hay may be sold to dairymen, sheep and cattle producers, or horsemen. The market for hay for pleasure horses can be particularly strong around metropolitan areas.

A part-time farmer can raise grass, grass-legume, or legume hay. Grass hay returns a rather low profit per acre. Alfalfa hay production can be a very profitable enterprise. This crop may be used on higher quality land to replace corn or soybeans. It requires an intermediate level of management and more labor than most field crops as it must be cut three to four times per season. Hay fits well into the summer schedule of school age youngsters, who may be available then to supply additional labor.

Family labor requirements can be reduced by hiring custom operators to perform part or all of the hay making. Equipment investment can be kept low with a sickle mower and a used rake and baler. A storage facility for conventional size square bales is almost a must to facilitate a hay marketing program. Selling hay off the farm can quickly deplete the soil of its fertility.

Tree fruits It will take 100 to 200 small trees to plant an acre of fruit trees (if dwarf trees are used with a trellis, it may take 700), depending on the type of trees and spacing chosen. Peaches, semi-dwarf apples, and plums take three to five years from the time of planting until they begin to bear any sizeable amount of saleable fruit. Standard apples, pears, and cherries take considerably longer.

If a family starts out with only a few acres (less than 10), it is possible to plant and care for the young trees with manual labor until the bearing season. After that, it will probably be necessary to purchase at least a tractor and sprayer if there is

an acre or more of orchard. Custom spraying is nearly impossible to hire for fruit trees in most areas. For more than a few trees, the labor of spraying by hand would be formidable. Other than the spray equipment, capital purchases can be kept very low on most small (under 10 acres) fruit farms. There would be no need to invest in storage or buildings unless the operation became quite large.

Much of the labor required for tree fruit operations can be unskilled, which means that all available family labor can probably be used. In fact, if the family plans their off-farm job vacations properly, they can coincide with the peak labor periods required by their fruit operation. To make even more efficient use of labor, the potential grower might consider a mixture of types of fruits (peaches, plums, apples, pears, and cherries), with several varieties of each type, to spread the harvest season and to provide the family with cash income over a longer period of time.

Annual labor demands for an established orchard range from 60 to 100 hours per acre per year. The initial cost of starting an orchard, including cost of trees, fertilizer, lime, initial sprays, and labor, is \$400 to \$1,000 per acre for orchards of less than 10 acres.

Small fruits Small fruit enterprises have a very high potential return per acre compared to most other crops. Thus, only small acreages are required to provide a family with a good extra income. However, they also require relatively large amounts of manual labor and are the most difficult type of crop to mechanize. Capital investment for small fruit operations can be kept quite low. The most expensive item would be a small irrigation system.

Strawberries have the highest potential net cash return with a range of \$600 to \$5,000 per acre depending on yield, weather conditions, and markets available. They also require the most labor, between 600 and 2,400 hours per acre per year, depending partly on whether the operator hires pickers or uses the "pick your own" approach. Strawberries are adaptable to most

areas and can grow on a wide range of soils. Local demand is high so they are readily saleable. They do require irrigation and careful management to produce efficiently.

Brambles (raspberries, blackberries, etc.) have lower returns, mostly because of lower yield. They also require about one-third as much labor. They are practically as adaptable as strawberries but may lack the market demand.

Blueberries could be as profitable as strawberries but do not have the wide area adaptation of strawberries. They do have a high market demand.

Table grapes require much less labor than strawberries and have about one-fourth the potential profit per acre. Grapes for fresh market have some limitations both in growing areas and local demand.

One danger that many families encounter when they start a small fruit operation is that they often start with an area that is too large for their labor supply or available market, or both. Small fruits are planted from one to three years before a saleable product is obtained. Quality of product is critical to success. Special attention must be paid to minimizing the effects of disease and pests.

Vegetables Vegetable producers have two distinct markets. The fresh produce market will usually provide higher returns per unit, be more receptive to high quality products, and be more available to small growers. The processing market (for canning, bottling, freezing, etc.) is less subject to overproduction and daily price fluctuations (due to local supply and demand relations). It can handle larger quantities of a standard grade, and can provide a more stable price.

In general, vegetables have a potential net cash return range similar to fruits. They also have similar labor requirements. Insects and disease may be major problems and can develop into a critical situation in a matter of a few days.

Some vegetables such as sweet corn, potatoes, and beans have as wide a consumer appeal as either

fresh or processed products. This means that the market will absorb relatively large quantities. Others, such as cucumbers, squash, or beets have a more limited appeal and the farmer may have to over-produce during the peak of harvest in order to have saleable products for the early and late markets.

Potatoes are saleable for several months after harvest since they can be stored. Other vegetables such as sweet corn and beans can be planted in several consecutive plantings to provide the producer with income from the crop over a period of several months.

Sweet corn has one of the lowest potential net cash returns (\$250 to \$500 per acre) of the major vegetable crops but it also requires less labor (50 to 120 hours per acre) than most others. In addition, sweet corn can bring people to a roadside stand better than most other crops, so it has value as a "drawing card."

Items such as melons and fresh market tomatoes can return as much as \$2,000 profit per acre but have higher labor requirements (200 to 400 hours) and a lower consumer demand than sweet corn. They also may ripen too fast for good market absorption when the weather becomes hot and too slow when it is cool.

Other vegetables such as fresh market cucumbers and squash have potentially higher returns per acre than melons but also have a much lower market demand. In addition, cucumbers have very high labor requirements and are similar to melons in their response to weather. Most vegetables produced for the fresh vegetable market have somewhat rigid limitations during the peak harvest season which dictate a limit to the acreage that can be sold at a profit.

Fresh market vegetable producers can either specialize, if they have a market for one crop, or produce several types of crops which will provide income over a longer period of time. Producers of vegetables for processing will probably specialize since they will need much larger acreages to gain a contract and to justify the required capital cost for equipment.

Table 2. A Comparison of Alternative Crop Enterprises

Enterprise	Unit	Heavy Labor Period		Hrs./Acre	Level of Mgmt.	Land Quality	Bldg. & Equip. Inv./Ac.	Annual Cash Expense	Marketable Product	Units to Average \$2,000 Above Cash Costs
		Planting	Harvest							
Field Corn	1 Acre	April-June	September-November	5-8	Med.-High	Good to Excellent	\$200-\$250	\$80-110	70-150 Bu.	30-55 A.
Winter Wheat	1 Acre	October	June or July	1.5-3.0	Low	Medium to Good	\$175-\$225	\$55-65	30-60 Bu.	40-65 A.
Soybeans	1 Acre	May-June	September-November	3-5	Med.	Good to Excellent	\$200-\$250	\$40-60	20-55 Bu.	25-55 A.
Milo	1 Acre	April-June	September-November	4-6	Med.	Medium to Excellent	\$200-\$250	\$80-90	80-150 Bu.	35-60 A.
Hay	1 Acre	Once Every 3-5 Yrs.	Spring & Summer 2-4 Cuttings Per Year	10-15	Med.-Low	Medium to Good	\$100-\$150	\$65-95	3-6 Tons	40-140 A.
Pasture	1 Acre	N.A.	N.A.	1-3	Low to Medium	Low to Medium	\$50-\$150	\$0-30	2-6 Animal Months Grazing	100-300 A.
Garden Crops	1 Acre	Spring	Summer-Fall	50-200	Med.-High	Medium to Excellent	\$300-\$1200	\$100-\$1000	Fresh Vegetables	2-20 A.

Management Decisions for Crop Farmers

Some of the main decisions that a crop producer must make are:

Land use capability

What type crops can the land support profitably?

Selection

The manager must not only select the type of crops to raise but also the variety or varieties. This decision must be made on the basis of information about soils, weather patterns, and the market available. Crop selection may be heavily influenced by the part-time farmer's decisions about livestock.

Crop rotation

The crop plan should provide for reasonable preservation of soil while providing a high profit use of land.

Cultural practices

Planting and harvesting times, adequate fertilization, good varieties, and proper spray programs are quite important in the ultimate yield and return of crops. Corn yields can be increased by planting at the right time. The value of a hay crop is affected by the quality at harvest. Fresh market fruits and vegetables can be harvested at various stages of maturity. The manager must decide which stage will sell best in his particular market.

Capital purchases

As with livestock enterprises, the manager must explore several alternatives, ask a lot of questions, and answer many of them before making capital purchases. Examples are: "Should we own or hire certain pieces of equipment?" "What size equipment?" "Should it be new or used?"

Information for Decision Making

Part-time farmers use many types of information. Much of it is available free or at a very low cost. Market reports, for example, are available several times a day over the radio or TV.

In some states market reports are available around the clock via a toll-free phone call to a public agency like the State Department of Agriculture. Financial information is available from banks or other financial institutions. The most useful information on many farms is the farm's own records.

Records Records are essential to any business. Good records are an efficient way to be well informed about your farm business. Records are required for both state and federal tax reporting, but good records can provide a basis for tax planning and management. Records are an objective means for measuring the financial progress and/or success of the business over time. They can be used to make factual comparisons with (a) past years, (b) goals that have been set, or (c) other comparable farming businesses. Records can aid planning by providing basic data for the analysis. Finally, farmers who are seeking credit can use records to determine if their business can justify the cost of credit, and the repayment plan.

Records take some of the guesswork out of farming. The cost of wrong decisions is growing. Using records in decision making is a tool to help minimize wrong decisions and their consequences. Good record books are available at low cost from the Extension Service and most agricultural credit agencies.

Off-farm sources We have pointed out the variety and complexity of decisions a part-time farmer must make. However, you have many helpful sources of information. The Cooperative Extension Service has one or more professional agriculturalists in each county. These persons can advise on the common agricultural problems of the area. They are backed up by state and area specialists who can be called upon if the county agent needs additional information. The County Extension Office will have bulletins and publications on a wide range of agricultural and home economics topics. You can take these publications home with you for reference.

Many high schools and vocational schools have

vocational agriculture programs. These programs are staffed with professionally trained agriculture teachers. Some programs have teachers that work primarily with adult farmers. These teachers are good resource persons. In addition, they are generally acquainted with other leading agricultural professionals in the community and can refer you to them if it seems desirable.

The Soil Conservation Service (SCS) and Agricultural Stabilization and Conservation Service (ASCS) are separate agencies of the U. S. Department of Agriculture and have offices in most counties. They are valuable information sources on government programs and soil and water information. They can provide an aerial photo of your farm at no cost. They may also have a complete soils map of your farm.

The agricultural credit agencies such as Farmers Home Administration (a USDA agency), Production Credit Association, Federal Land Bank, and commercial banks can provide valuable financial information. They can assist in evaluating the payout potential of different investments in farm enterprises.

Insurance

A knowledgeable insurance person may be an important resource person. A family works hard to obtain the assets they acquire. They should also develop a reasonable plan to protect those assets. Although few part-time farmers can afford to insure against all risks and losses, a sound insurance plan can be developed. The first step in insurance planning is to look at the objective for both the family and the farm. Then a family must decide not only how much they can spend for insurance, but what kinds of insurance are most important.

There is no formula which will indicate just how much of each kind of insurance a part-time farmer should carry. However, the decision can be simplified by asking three basic questions:

1. What are the *chances* of this loss occurring?
2. What are the *consequences* if it does? Can you experience the loss without seriously disrupting the farming operation or family living?
3. How much will it *cost* to insure against it?

Summary

People considering part-time farming should realize that farming is a business and as such needs capital, labor, and management as well as land, buildings, and equipment.

Potential part-time farmers should thoroughly consider the advantages and disadvantages of operating a farm. They should also explore the advantages and disadvantages of different farm enterprises before selecting the main one or two.

Income is important in the selection of enterprises. However, it is only one factor. Personal preferences of the family and the amount of time and management that can be devoted to the farm are also very important, especially to the part-time farmer. In some cases, the tax angles may influence enterprise choice—for example, it is possible to recognize income from qualifying breeding stock as capital gains rather than ordinary income.

Management is a key factor in the success of any business including that of operating a farm. The manager's primary purpose is making and carrying out decisions.

Records are essential to a manager charged with the successful operation of a farm business. They are required for tax purposes, necessary for development of a good credit program, and essential as a tool in management decision making.

Helpful information on production practices and farm management techniques is available from the Cooperative Extension Service through publications and short courses, and from consultation with county, area, and state specialists. You'll find an Extension office at each county seat. Banks, dealers, sales personnel, agriculture teachers and governmental agencies like FmHA, SCS, and ASCS are also excellent information sources. Perhaps the best advice you can get comes from others who are doing what you are planning to do.

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