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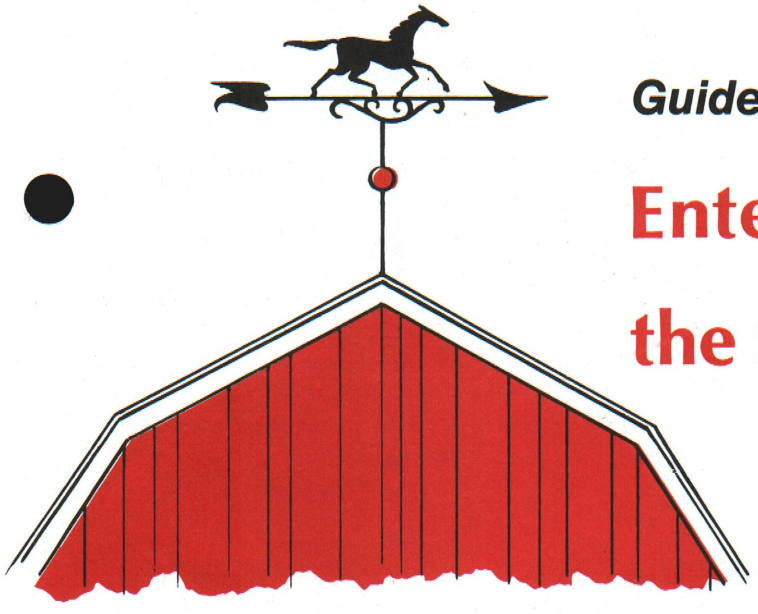

FARMING KNOW-HOW
Guidelines to Better Family Farming

Enterprise Selection On the Small Farm

COOPERATIVE EXTENSION SERVICE
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Many different crop and livestock enterprises can be produced on a small Michigan farm. Each enterprise uses resources differently—land, labor, buildings, machinery, operating capital and management—and gives a different return. As a farm manager, one of the most important decisions is to determine what combination of crops and livestock should be raised on the farm.

This publication provides information about typical enterprise possibilities in Michigan agriculture, including lists of resource requirements for the enterprises. It should assist you in deciding what enterprises to select. So, check the following steps to decide what to produce on the farm and answer the questions as you go along.

DETERMINE THE OBJECTIVE(S) FOR YOUR FARM

Farms can be organized in many ways to fit your desired goals and lifestyles. As a starting point, consider the following questions to determine which objectives fit your situation. Then list your objectives and select enterprises that can help you achieve them. If you have a family, let them help make the decisions.

- Is the farm expected to furnish one or more family members with full-time or part-time employment? Or is the farm a place in the country where the activities are more recreational?
- How much family income is expected from the farm? A majority of the family income? A supplemental source of family income? Would a "break even" operation be satisfactory? Would an operating loss for a few years be acceptable? The income desired must be compatible with the amount of family labor available for farm activities.
- Is capital accumulation and business growth an important reason for owning a farm?
- Does the family prefer certain types of crops or livestock?
- Is the family willing to use borrowed money if needed? Can the family withstand financial risk and possible losses from the farm? Because agricultural enterprises depend upon biological and economic processes, financial returns can vary greatly.
- Is the family willing to spend the time to acquire the knowledge and experience needed for operating a successful enterprise?
- Is the family willing to follow a prescribed work schedule? For example, some livestock enterprises require daily care and attention.
- Are there any family or personal health problems or physical limitations which would affect the selection of enterprises?
- Are farm enterprises expected to provide the family with food products? Which ones? How much?
- What other personal or family objectives limit your enterprise selection?

IDENTIFY YOUR RESOURCES

If you've defined your goals and objectives, it's time to look at the resources your family has available for production. List those resources and match them with the resource requirements of the various crop and livestock enterprises.

Land

Land quantity and quality are critical factors in choosing crop enterprises. How many acres of land do you have? Is it suited for row crops, small grains,

forage or forest? Land and soil have a number of different characteristics you need to know. Consider how steep the land is, the erosion hazard, drainage—natural or tile—soil texture (clay, loam, sand, etc.). For crop production, know the fertility and acidity level of the soil. The answers to these questions will determine what you can do with your land.

Land that is almost level, has no erosion problems, is well drained, has a medium texture, has good fertility and a soil acidity level of pH 6.4-6.8, might be good for almost any crop. Exceptions exist for some crops that have special requirements, such as blueberries, which require an acid soil.

Land that has gentle slopes or suffers from some erosion problems may need cover crops such as oats, wheat, alfalfa, clover or other grass crops in rotation with the row crops. Land with steep slopes and severe erosion hazards may need permanent vegetative cover such as pasture, or may not be usable for agriculture. Light sandy soil which is too well drained will need irrigation for crop usage, while land that is poorly drained will need tile drainage.

Solutions to naturally existing problems may require a large capital investment and a careful assessment of enterprise selection to determine whether the extra outlay of money is justified.

Also consider climate. The amount of rainfall, growing degree days, first and last frost dates and amount of sunshine all directly influence which crops can be grown.

Land capability has been classified by the Soil Conservation Service of the United States Department of Agriculture. Soils are grouped into eight land capability classes to show the suitability of soils for general farm crops, grazing, forestry and wildlife. This land capability classification system is based on the needs and limitations of soils, on risks of damage when they are used and their responses to management. Refer to Extension Bulletin E-326, "A Guide for Land Judging in Michigan," for more detailed information on land capability classes and how they influence crop production.

The yield potential of your land depends upon the soil properties, location in the state and how it is managed. Soils with similar properties and yield potentials form soil management groups (clays, clay loams, loams, sandy loams over clay or loam, sandy loams, loamy sands over clay or loam, loamy sands, and sands). Soil sampling and testing should be completed on your farm to determine the soil management groups, yield potential and fertilizer recommendations for different crops. For assistance in soil sampling and testing, contact your county Cooperative Extension office and obtain Extension Bulletin E-550, "Fertilizer Recommendations for Vegetables and Field Crops," and Extension Bulletin E-498, "Sampling Soils for Fertilizer and Lime Recommendations."

Water

An adequate supply of good quality water is needed for any livestock. Providing a continuous supply of fresh water for animals can be a problem in the winter unless heated water sources are available.

For most Michigan soils and farm locations, natural rainfall is adequate for crop production. However, for sandy soils and for high value crops such as fruits, vegetables or specialty crops, irrigation may be needed during dry spells or for frost protection to prevent losses and to increase crop quality.

Labor

The quantity and quality of the family labor supply may limit the type or size of enterprise selected. How many hours of labor are available? Is it available on a daily, weekly or seasonal basis? When are vacations taken? Can at least one family member handle the heavy physical work? Is labor available to handle the peak seasonal requirements? Will labor be hired? Is it available in your community?

Experience, Skills, and Management Ability

While some operations are relatively simple to learn, others are complex and require detailed knowledge from experience and study for success. It usually isn't enough just to work hard to succeed. A good manager will try to figure out how to do something in a shorter period of time with *less* work needed. Managing your business well means collecting information, analyzing it and using that information to make good decisions. Mechanical ability is useful, too, for handling farm equipment. What strengths and weaknesses in this area do you possess?

Capital

All farm enterprises need capital. The amount needed varies with the operation. Capital required for livestock includes purchasing the animals, the equipment to care for them, plus housing and/or fencing and feed. Field crops, fruits and vegetables need equipment for soil preparation, planting, pest control and harvesting. Operating capital is needed for fertilizer, seed or plants, spray materials and other inputs.

Credit is one way to increase available capital if used *wisely*. Decide how much you need for a particular job, what it will do for you, where you'll get the credit, and what credit will cost and when and how it will be paid back.

Frequently a farmer will need to purchase supplies, plants or animals that won't give an immediate return. Take into account when choosing an enterprise how long can you afford to have money "invested" before it yields a return. How much capital is available? How much credit can be borrowed?

Markets

A viable market is as important as implementing good production practices. Determine whether the product will be sold to a wholesaler, retailer or directly to consumers. Limitations include the number of potential buyers in the area, local demand and perishability. Some products, like field corn, can be sold in a number of markets—local, regional, or farm use. Others, like strawberries, are limited to local markets.

If a local market selling direct to consumers already exists or can be developed, it may be practical to produce specialized crops that larger farmers do not produce. You may be able to offer a specialized product or service not available in your area. A few examples are goat's milk, rabbit meat, cut-your-own Christmas trees and pick-your-own fruits or vegetables. Consumers may pay premium prices for common products having high quality, unique packaging or other special characteristics.

Buildings

Some enterprises can be adjusted to nearly any existing structure, but others require costly, specialized structures. What buildings are presently on your farm? Can these buildings be renovated for your enterprises? Don't automatically let existing buildings determine the enterprise.

Machinery and Equipment

What machinery and equipment are presently available? Consider carefully machinery use and other ways to obtain machinery services before purchase. If labor-saving machinery doesn't pay for itself, maybe your business isn't large enough to support such equipment. If you don't have enough time for the labor required without that piece of equipment, produce something else with a lower labor requirement. Another alternative is to make use of custom work available, for example, harvesting. This could be more economical than owning machinery.

INVESTIGATE ENTERPRISE ALTERNATIVES

After evaluating your resources, obtain information about different enterprise possibilities. The following sections briefly describe livestock and crop alternatives. If one seems interesting, seek additional information about that enterprise since the descriptions given here do not provide enough data for a final decision.

Livestock Enterprises

Livestock are generally kept to make use of resources not otherwise being used efficiently. These might include (1) labor from underemployed family members; (2) forage and grain crops raised on the farm for which there is no good local market; (3) otherwise unused buildings; (4) special experience or skills of the farmer, and (5) special markets in the area.

Livestock may increase net farm income, provide food for the family and help maintain soil fertility and tilth. A livestock enterprise may also provide a more even distribution of income. Crops would be harvested and sold over a shorter time period, while livestock products can be managed to be salable at various times. This lengthens the period when you can receive an income. Raising livestock decreases the price risk involved with crops but adds the price and yield risk of enterprises. While livestock operations have potential for greater earnings than crops, they also have potential for greater losses.

There are four problems common to most livestock operations: (1) disposal of animal wastes (manure, bedding, etc.) with its sanitation problems, odor and possible water and soil pollution; (2) good fencing with some livestock; (3) daily labor, and (4) management decisions.

When looking at an individual livestock enterprise, keep the resource base in mind. What do you have that can be used by such an enterprise?

Dairy Cows. A dairy herd is not likely to be the best enterprise for a small farm operator unless full-time employment is wanted. It is becoming very difficult for a small herd to be competitive because of the initial investment and the high per cow costs of operation. Dairy cows have a high labor requirement with a set daily routine, require careful management and have a high per cow capital requirement. Also, herd facilities and production methods must meet stringent health standards, as milk and milk products are highly regulated.

One alternative to dairy cows is raising dairy heifers from calves for other dairy farmers. This operation takes less labor than a dairy herd but has a relatively long period of time after purchase of calves before you can sell them. There also is a higher management requirement for dairy heifers than for beef cattle. Another alternative is the purchase of dairy calves to feed to 200-300 pounds for the veal market. The dairy calves could also be finished to 1000-1100 pounds for beef.

Some families keep a dairy cow for family milk. Because savings in milk bills may be small due to feed and other product costs and daily family labor, many families become discouraged with this alternative.

Beef Cattle. There are several beef enterprises to choose from. Maintain a breeding herd of cows and raise their calves to different weights or purchase your calves at the size desired. The following are examples

of purchase and selling weights for different beef feeding enterprises:

1. 600-800 pound yearling fed to 1100-1200 pound finished animal;
2. 400-500 pound feeder calf fed to 1000-1100 pound finished animal;
   or
3. 400-500 pound feeder calf fed to 600-800 pound yearling.

Labor needs are low and a flexible daily schedule can be followed. This is a good place to make use of available family labor. Home-produced forages can also be utilized if available. However, beef enterprises frequently return to the farmer a small amount of money per head. Success in the feeding of beef steers or heifers requires experience. Try out your skill first with just a few animals.

Swine. Like beef cattle, several options are open in raising swine. A breeding herd of sows can be kept, and up to two litters of pigs can be produced per sow per year and sold as 40-60 pound feeders or fed to market hog weight at 210-225 pounds. Feeder pigs can also be purchased and fed to market weights. For a low capital, low labor enterprise, pigs can be raised or fed only during summer months, thereby avoiding the need for winterized facilities. However, this also lowers potential income. With proper breeding management, the farrowing house or finishing facilities could be in use almost continuously and thus income could be more regular than with some other enterprises. One possible disadvantage: swine cannot use large amounts of pasture and forages, but need feed grains for the main part of their diet.

Sheep. Sheep need minimum housing, except in cold and wet weather during lambing, but do require an investment in fencing. Labor needs are low except at lambing time when many ewes need help giving birth. Sheep provide two income sources—wool and lambs. Sheep shearers and lamb and/or wool markets may be difficult to find in some areas. Since the main feed for sheep is roughage, with some grain, good pasture and forages are needed. Sheep also need to be protected from harassment by dogs and other predators.

Poultry. A small flock of chickens is frequently found on farms for a home supply of eggs and meat. Developing local customers for retailing eggs or broilers may be successful. Raising game birds and raising pullets up to egg laying age are other alternatives. The poultry flock requires a large labor input because it must be cared for daily.

Crop Enterprises

Crops are grown to provide food for the family, for cash sale, as feed for livestock and as green manure (soil builder).

Field Crops. Typical field crops are corn grain and silage; grass and alfalfa hay; small grains such as wheat, barley, rye and oats; soybeans and other edible beans. Potential income from field crops is less than from more intensive crops. However, since there is a lower labor requirement, less need for irrigation and lower starting capital, a farmer may be able to manage more acres of field crops. The field crop farmer must be sensitive to market price fluctuations and the need to store crops that are not sold at harvest time. Many crops can be fed to livestock or sold in local markets.

Tree Fruits. Tree fruits such as apple, peach, plum and cherry need good management, high labor inputs during harvest and a long-term capital investment before trees come into production. But they offer a higher potential return than field crops if the crop is of high quality and a good market is available.

Small trees are planted 100-200 to the acre and must be cared for (pruned, fertilized, mulched and sprayed) until they reach bearing age. This time period varies from three to five years for the smaller trees—plums, peaches and semi-dwarf apples—to as much as ten years for the larger trees—standard apples, pears and cherries. On a few acres, a family could probably handle this work by hand. When the trees are ready to bear fruit, basic equipment in sprayers, tractors and containers will be necessary. Caring for a large number of mature trees by hand could be an enormous task.

A farmer might plant several different kinds of tree fruits since they mature at different times, spreading out the work load and income. Tree fruits have varying cold sensitivity and thus have stiffer requirements for site and location than some other crops. A good orchard site can make the difference between saving or losing a crop if an unexpected cold spell hits.

Small Fruits. With a little land and a lot of manual labor, small fruit crops have just about the highest income potential per acre. The amount of labor can be reduced by selling on a "you pick" basis. This requires that the farm have easy access from nearby towns, a parking area and careful management of the pickers to prevent damage to your plants from carelessness or inexperience.

Capital requirements per acre can be high because of the irrigation system and land preparation machinery needed. Small fruits vary in the amount of time necessary for the plants to mature to bearing age. Strawberries and brambles mature the fastest; grapes and blueberries take several more years.

Strawberries take the most labor and require good management, but local demand can be high. Blackberries, raspberries, etc. take less work but also have a lower yield and, therefore, give lower cash returns. Blueberries have special soil and site requirements, but can be as profitable as strawberries because there is a strong market demand.

Grapes also require less labor than strawberries, but need careful management to get good crops every year. Here, there are not only vineyard site limitations, but possible market problems, if you plan to sell table grapes.

Vegetables. Vegetables are very similar to small fruits. They take a lot of labor and have a potentially high cash return. They can be sold for fresh consumption or to a processor for canning or freezing. There is less chance that the market will be glutted by local supply if you sell to a processor, but the return will be somewhat lower than for fresh consumption. Also, processor crops are almost always grown under contract.

Crops with the highest consumer demand are sweet corn, tomatoes, potatoes and green beans. Potatoes can be stored for several months. Other vegetables, such as sweet corn and beans, can be planted over a period of time to give a longer harvest.

If you think you might select a vegetable crop, or crops, where you might want to extend the harvest season, or have a variety for a roadside stand or on a "you pick" basis, then check out the specific production requirements before finalizing your decisions.

Miscellaneous. There are a number of specialized crops that can be produced. If one of them sounds interesting, be sure to check it out more thoroughly. Remember that regardless of how well a particular crop may be suited to you, it won't do you any good if you don't have a buyer for your product.

Some of the many possibilities are: greenhouse crops such as flowers, houseplants, winter fruit and vegetables; mushrooms; dairy goats, rabbits, turkeys, ducks, geese; cut-your-own Christmas trees; maple syrup; bees; and herbs, teas, and spices.

DETERMINE ENTERPRISE RESOURCE REQUIREMENTS

Tables 1-4 contain a summary of the resource requirements, potential costs and returns and minimum size required for common livestock and crop enterprises. The information has been adapted from special Circular 203, *Farm Management for Part-Time Farmers,* The Pennsylvania State University, University Park, Pennsylvania.

Additional information about small farm enterprises can be obtained from the following Extension

Table 1. A Comparison of the Requirements for Beef and Dairy Enterprises

Factor	Beef Cow	Finishing Yearling Steer	Finishing Feeder Steer	Backgrounding Feeder	Dairy Cow	Dairy Beef	Dairy Heifer	Heavy Veal
Unit	1 cow	1 steer (700-1200#)	1 steer (400-1100#)	1 calf (400-700#)	1 cow	1 steer (100-1000#)	1 heifer	1 calf (100-300#)
Labor								
Daily Sch.[1]	some	little	important	important	essential	some	some	essential
Dec. & Resp.[2]	little	slight	some	some	usually	slight	some	usually
Peak Season[3]	calving	purchase	purchase	purchase	usually	none	young	usually
Hrs./Unit	6-12/yr	3-5/period	5-7/period	2-4/period	64-81/yr	10-12/yr	12-15/yr	4-5/period
Management[4]	low	low	average	average	intense	low	intermit	intense
Land Area	2-4 A/cow	confined	confined	1 A/hd	2-4 A/cow	1-2 A/hd	1-2 A/hd	----
Water/Unit	18 gal/day	20 gal/day	15 gal/day	10 gal/day	50 gal/day	10 gal/day	10 gal/day	4 gal/day
Market								
Limitations[5]	not now	not now	not now	not now	none	not now	some	possible
Type	multiple	multiple	multiple	regional	regional	multiple	local	contract
Capital								
Turnover[6]	12-14 mo	6-9 mo	8-12 mo	6-8 mo	1-2 yr	16-18 mo	18-30 mo	12-14 wk
Bldg. Inv. $	0-100	0-100	0-50	0-200	300-1000	20-200	20-250	55-100
Equip. Inv. $	50-400	100-300	100-300	50-200	200-600	20-100	20-100	65-200
Animal Cost $	225-500	250-400[7]	150-250[7]	150-250[7]	500-800	45-60[7]	80-200[7]	45-60[7]
Cash Exp. $	100-350	150-225	200-300	50-75	550-700	310-450	250-450	150-160
Cash Return $	150-300	400-650	350-600	200-400	800-1100	350-550	450-700	170-190
Minimum Size	10 cows	5-10 steers	5-10 steers	10-20 animals	25 cows	5 animals	5 animals	10-20 vealers

[1]How important is timeliness and how important is keeping a rigid daily chore schedule to the success of the enterprise?
[2]How important is it for labor to be able to make some daily decisions and accept some management responsibility?
[3]Peak season usually requires more labor and more intense management. When does it occur, if ever?
[4]Each enterprise requires a different minimum level of managerial attention with intense as highest followed by intermittent, average, and low.
[5]Market limitations may affect the supply-demand ratio which in turn would mean a less than economical price or a limited amount of saleable units at any price.
[6]Amount of time from purchase to sale of item or amount of time for breeding animal to pay for itself thru sale of product.
[7]Included as part of cash expense.

Table 2. A Comparison of the Requirements for Swine, Sheep, and Poultry Enterprises

Factor	Sow-Feeder pigs sold	Feeder Pig	Sheep	Game Birds	Layers	Broilers	Pullets
Unit	1 sow	1 pig (40-220 lb)	1 ewe	100 birds	100 birds	100 birds	100 birds
Labor							
Daily Sch.[1]	important	some	important	important	essential	important	important
Dec. & Resp.[2]	important	little	slight	some	slight	slight	slight
Peak Season[3]	farrowing	purchase	lambing	young	usually	usually	usually
Hrs./Unit	20-40/yr	1/period	2-5/yr	4-5/period	80-120/yr	3/period	4-5/period
Management[4]	average	low	average	intermit	intense	intermit	intermit
Land Area	0.2A	confined	0.2A	0.1A	0.1A	0.1A	0.1A
Water/Day	5-8 gal	4-5 gal	2-3 gal	3-4 gal	10 gal	5 gal	5 gal
Markets							
Limitations[5]	none	none	some	yes	some-yes	possible	possible
Type	multiple	local	regional	regional	local ret.	contract	contract
Capital							
Turnover[6]	6-9 mo	4-5 mo	10-12 mo	4-5 mo	14 mo	8 wk	20 wk
Bldg. Inv. ($)	0-150	10-80	10-100	50-200	0-100	50-200	50-200
Equip. Inv. ($)	0-60	10-50	0-40	25-100	20-200	12-80	12-80
Animal Cost ($)	100-150	15-70[7]	25-80	35-45[7]	160-200[7]	15-20	35-45[7]
Cash Expense ($)	300-600	45-75	25-80	300-350	800-1000	50-65[7]	160-180
Cash Return ($)	350-800	50-100	50-80	300-500	1000-1400	60-75	200-250
Minimum Size	4-6 sows	5-20 pigs	10 ewes	1 unit	2 units	50 units	50 units

[1]How important is timeliness and how important is keeping a rigid daily chore schedule to the success of the enterprise?
[2]How important is it for labor to be able to make some daily decisions and accept some management responsibility?
[3]Peak season usually requires more labor and more intense management. When does it occur, if ever?
[4]Each enterprise requires a different minimum level of managerial attention with intense as highest followed by intermittent, average, and low.
[5]Market limitations may affect the supply-demand ratio which in turn would mean a less than economical price or a limited amount of saleable units at any price.
[6]Amount of time from purchase to sale of item or amount of time for breeding animal to pay for itself thru sale of product.
[7]Included as part of cash expense.

Table 3. A Comparison of the Requirements for Some Crop Alternatives

Factor	Cucumbers	Green Beans	Potatoes	Field Corn	Wheat	Oats	Soybeans	Alfalfa Hay	Other Hay
Unit	Acre	Acre	Acre	Acre	Acre	Acre	Acre	Acre	Acre
Labor									
Timeliness	some	some	important	some	little	little	some	important	important
Dec. & Resp.[1]	slight	little	little	slight	slight	slight	slight	little	little
Peak Season[2]	July-Aug	Aug.	July-Sept.	May,O-N	July & S	Apr&Jy	May,O-N	May-June	May-June
Man Hr./Unit[3]	300-600	8-120	100-150	5-10	4-6	4-6	4-6	10-12	8-10
% Manual	70-80	20-80	30-40	5-10	5-10	5-10	5-10	20-30	20-30
Measurement[4]	low	average	intermit	average	low	low	average	intermit	average
Land									
Quality	good	variable	variable	variable	variable	variable	variable	fair	variable
Drainage	well	variable	variable	variable	variable	variable	variable	well	variable
Topography	level	rolling	rolling	rolling	rolling	rolling	rolling	rolling	rolling
Irrigation	desirable	maybe	none	none	none	none	none	none	none
Market									
Limitations[5]	yes	some	possible	none	none	none	none	possible	some
Type	multiple	multiple	multiple	multiple	multiple	local	multiple	local	local
Capital									
Turnover[6]	2 mo	2 mo	4-5 mo	5 mo	10 mo	3 mo	5 mo	1 yr	1 yr
Equip. Inv. ($)	10-3000	10-3000	5000+	2500+	2000+	2000+	2500+	4000+	4000+
Cash Expense ($)	100-400	150-250	240-300	75-150	40-100	35-80	40-100	50-100	40-80
Cash Return ($)	700-2000	300-1000	550-650	80-300	60-225	40-150	80-300	50-200	30-100
Minimum Size	1/4 A	0.1 to50A	50-100A	10A	10A	10A	10A	10A	10A

[1]How important is it for labor to be able to make some daily decisions and accept some management responsibility?
[2]Over 60% of labor and the most intensive management required for time listed.
[3]For annual crops, man hours would be for growth period — for perennial crops such as hay, man hours are those per year.
[4]The amount of management attention required by a crop to be successful varies from intense to intermittent (some periods of intense and some of low management attention) to average to low.
[5]Market limitations can be due to limited demand or perishability of product ("yes" indicates a rather severe limitation; "some" means the limitation will occur during certain times and for certain uses; "possible" means the limitation is there but is not very strict).
[6]Turnover time from planting until the harvest of the first saleable crop.

bulletins which are available from your County Cooperative Extension office.

E-773, The Small Poultry Flock
E-843, Ewe Flock: Opportunity for Supplemental Income
E-885, Swine Production on Small Farms
E-990, Management Systems for Small Beef Herds of 10 Cows or Less

E-1038, Guidelines for Producing Beef from Dairy Calves
E-1050, Anyone for a Few Geese?
E-1120, Finishing Feeder Pigs
E-1153, Producing Feeder Pigs
E-856, Growing Currants and Gooseberries

E-1049, Winter Wheat Production
E-941, Pick-Your-Own Operations
E-1145, Roadside Marketing for Beginners
E-1246, Pick Your Own
E-1257, Anyone For A Few Broilers
E-1259, Want to Raise A Few Turkeys
E-1260, Raising A Few Ducks

CHOOSE YOUR ENTERPRISE(S)

The analysis to this point has taken you part way through the decision making process. You have: (1) defined your enterprise objective, (2) identified your resources, (3) considered enterprise alternatives, and (4) obtained information about enterprise resource requirements, and possible costs and returns.

This process should have helped to eliminate some enterprises and list some preferences. Take those enterprise preferences and recheck them against the lists you made on your enterprise objectives, resources you have available and the enterprise resource requirements. Do these match? Do you have enterprises that are compatible? For example, if you own land that requires pasture or forages, does your plan include dairy, beef or sheep enterprises that can utilize forages? Or will you lease out your pasture land to neighboring farmers? Or will you sell hay as a cash crop? Is there a local market for cash crop hay? Do the enterprise preferences satisfy your income objectives? Do you have labor and capital available to produce those products?

In most cases your farm will have more than one enterprise. Diversification helps to better use

Table 4. A Comparison of the Requirements for Some Crop Alternatives

Factor	Peach	Apple	Strawberry	Raspberry	Grape	Cherry Tree	Sweet Corn	Tomato	Cantaloupe
Unit	Acre	Acre	Acre	Acre	Acre	Acre	Acre	Acre	Acre
Labor									
Timeliness	important	important	important	some	important	important	important	some	some
Dec. & Resp.[1]	some	some	little	little	some	some	slight	little	slight
Peak Season[2]	Apr.,Jy-S	Mar.,Jy-O	May-June	Mar.July	Apr.Aug	May,Jn,Jy	July-Sept	July-Aug	June,Aug
Man hrs/Unit[3]	65-80	80-100	600-2400	200-800	80-100	35-150	50-120	20-320	200-400
% Manual[10]	30-50	30-50	60-90	60-100	60-80	30-90	30-60	50-70	70-80
Management[4]	intermit	intermit	intermit	low	intermit	intermit	low	average	average
Land									
Quality[7]	special	special	fair	variable	good	special	variable	fair	fair
Drainage	well	well	well	variable	well	well	variable	well	well
Topography	variable	variable	level	level	variable	variable	variable	level	level
Irrigation	desirable	desirable	essential	desirable	desirable	desirable	possible	desirable	essential
Market									
Limitations[5]	some	possible	possible	yes	some	possible	possible	some	some
Type	multiple	multiple	local ret.	local ret.	special	multiple	multiple	multiple	local ret.
Capital									
Turnover[6]	4-7 yr	4-9 yr	1 yr	3 yr	4 yr	6-9 yr	3 mo	2-3 mo	3 mo
Equip. Inv. ($)	2000-4000	2000-4000	200-1000	300-1500	200-1000	200-2000	10-3000	10-3000	200-3000
Plant Cost/A ($)	800-2000[8]	250-600[8]	200-300[8]	200-300	350-400[8]	400-600[8]	-----	-----	-----
Cash Expense ($)	200-400	300-400	1200-2400	500-1000	200-400	300-1200	150-180	350-600	400-700
Cash Return ($)	200-1200	500-1000	3000-8000	1500-2500	500-1000	1000-2000	400-800	500-1200	1500-3000
Minimum Size	5 A	5A	1/4 A	1/8 A	1/4 A	1 A	2 A	1/4 A	1/4 A
Number[9]	109-194	109-194	3000-5000	800-900	500-800	108	10-15 lb	5000-6000	½-1 lb

[1]How important is it for labor to be able to make some daily decisions and accept some management responsibility?
[2]Over 60% labor and the most intensive management required for time listed.
[3]For annual crops, man hours would be for growth period—for perennial crops such as hay, man hours are those per year.
[4]The amount of management attention required by a crop to be successful varies from intense to intermittent (some periods of intense and some of low management attention) to average to low.
[5]Market limitations can be due to limited demand or perishability of product ("yes" indicates a rather severe limitation; "some" means the limitation will occur during certain times and for certain uses; "possible" means the limitation is there but is not very strict).
[6]Turnover is time from planting until the harvest of the first saleable crop.
[7]"Special" means that some special quality is necessary in the soil or location that is not necessarily related to the productive capacity of the soil
[8]Total cost involved from planting until first harvest season.
[9]Number of plants or trees per acre for crops started from seedlings or pounds of seed for those started from seed.
[10]Lower figure represents the percent of work that must be done manually and higher figure represents the percent that could be done manually.

available resources, labor and capital over a longer time period and increase income stability, etc. However, too many enterprises can dilute your management effectiveness, cause labor and capital inefficiency and reduce the volume of production available for some markets. Many factors are important in deciding how much to diversify or specialize on your small farm. Knowing your objectives and resource situation can help in making these decisions.

Development of a detailed budget for each enterprise preference can assist further in evaluating the income potential from the enterprise, capital needs, resource needs and whether the enterprise fits your situation. Select the size of enterprise you are thinking about and develop a budget for it. First, write down all the income obtained from selling what is raised. Then write down all the costs involved in raising that product. The difference between the total income and the costs is how much money is made (or lost) on that particular enterprise with those particular management methods. Remember, this is a projection into the future. You will rarely know *exactly* what all the prices or costs will be. Part of being a good manager is to learn how to make estimates and take into account all those potential ups and downs in the markets, weather, etc.

Tables 5 and 6 show crop and livestock budgets that can be used as examples to guide you. Because your resources and management plans for the enterprises may be different, you really need to do your own budgets.

Now that you have analyzed each enterprise preference, you are at the point in the decision making process where a final selection of an enterprise should be made and responsibility taken for your choices. After operating your enterprises, evaluate whether your enterprise selection was correct and make changes if needed in future years.

Table 5. Example Crop Budget. Receipts and Non-Land Production Costs for 50 Acres of Corn

	Item	Case Example
A.	Receipts	
	1. Corn (70 bu/A × 50A × $2.30/bu)	$8,050
B.	Direct costs	
	1. Fertilizer[1]	865
	2. Seed	450
	3. Pesticides	550
	4. Machinery operation[2]	763
	5. Drying and marketing	630
	6. Storage[3]	315
	7. Operating interest[4]	303
	8. Total direct costs	$3,876
	9. Receipts over direct costs (A.1 − B.8)	$4,174
C.	Overhead costs[5]	
	1. Labor[6]	$1,375
	2. Machinery[7]	1,675
	3. Miscellaneous[8]	220
	4. Total overhead	$3,270
D.	Net margin (B.9 − C.4)[9]	$ 904

[1]85-25-40 for N−P_2O_5−K_2O for 70 bushel yield @12, 14 and 9 cents per lb.
[2]Fuel and repairs.
[3]Assumes part of crop sold at harvest and part stored; average 3 months storage at 3 cents per bushel per month on all production.
[4]Interest on direct costs for 6 months and crop storage for 3 months at $2 corn price per bushel and 9% interest rate.
[5]Overhead costs may be lower if land is added to an existing unit.
[6]5.5 hours per acre @$5 per hour.
[7]Machinery depreciation, lease, insurance and 9% interest on investment.
[8]Record keeping, utilities, supplies, etc.
[9]Net margin is the capital return to land for land overhead costs and management.

Table 6. Example Livestock Budget. Receipts and Costs for Feeding 50 Purchased Pigs

	Item	Case Example 48 Head[1] Sold
A.	Receipts	
	1. Market hogs (48 hd × 220 lbs × $.40/lb)	$4,224
B.	Direct costs	
	1. Feeder pigs (50 hd × $32/hd)[2]	1,600
	2. Feed	
	a. Corn (442 bu × $2.50/bu)	1,105
	b. Supplement (6144 lbs × $.10/lb)	614
	3. Marketing and hauling ($1.50/hd)	72
	4. Veterinary and medicine ($.50/hd)	24
	5. Utilities ($.30/hd)	14
	6. Interest on feeders and feed ($3320 × 10% × 4 mo)	110
	7. Grinding and mixing feed ($.25/cwt × 309 cwt feed)	77
	8. Miscellaneous (bedding, supplies)	24
	9. Total direct cost	$3,640
	10. Receipts over direct costs (A.1 − B.9)	$ 583
C.	Overhead costs	
	1. Labor (72 hr × $5/hr)	360
	2. Building depreciation	50
	3. Equipment depreciation	12
	4. Miscellaneous (insurance, property taxes and repairs)	50
	5. Total overhead costs	$ 472
D.	Net margin (B.10 − C.5)[3]	$ 111

[1]50 feeder pigs were purchased, but a 4% death loss resulted in 48 head sold.
[2]Feeder pigs were purchased weighing 40 pounds.
[3]Net margin is the capital return to buildings and equipment and management.

SUMMARY

Enterprise selection on the small farm is a critical decision for you and your family. Although information is available from many sources to help with your decision, careful evaluation of your own objectives and resources is of greatest importance. A good manager will gather as much information about a problem as possible before making a decision. You should go through the whole decision making process, hopefully make a good decision and then evaluate for any further changes. You should now know how to make an enterprise selection decision, so go forth—and have a good time being the kind of farmer that is right for you.

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