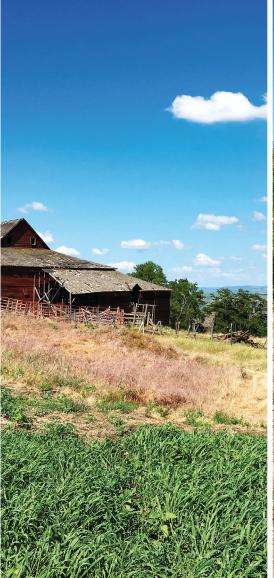


SUSTAINABLE SMANN ACRESSE FARMING IN IDAHO: FINDING AND LAND

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Sustainable Small Acreage Farming in Idaho:

Finding and Evaluating Land

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Figure 1. Rural Property in Latah County, 2017.

Introduction

IDAHO HAS A LONG HISTORY of small acreage farming that allows people to produce their own food themselves and also to develop various farm-based business enterprises. Establishing a small farm (Figure 1) is worthwhile, but it requires time and attention to many details.

This publication provides an overview of important considerations for prospective farmers when selecting land to establish a successful small farm or ranch. Evaluating farm goals, assessing potential markets, and thinking through lifestyle choices, family relationships and partnerships on the farm are among the central concerns for a profitable and sustainable business. Before purchasing property, it is advisable to learn about the history of the land. If the soil has been treated with pesticides and fertilizers and/or is depleted, it may need a rest period while you amend the soil with organic matter such as manure or compost, before it can be put back into production. There is much to think about before you acquire land so that you can grow your farm dream into a successful small farm business.

This publication reviews the following land evaluation topics: farm planning, natural resources, topography, climate, pests and problems, physical assets, nearby activity, marketing farm products, site history, and legal and regulatory considerations. There are several stories of small acreage farmers describing how they selected their land. A checklist is included at the end, intended to help the reader think through the many facets of evaluating a piece of land.

Farm Planning

Your first step before aquiring land is to identify your goals for your farm. Please consider taking a Cultivating Success™ course on Whole Farm Planning or Exploring Your Small Farm Dream. Whether you want to raise goats, chickens or other livestock, or grow medicinal herbs, for example, all of these activities have different requirements. Your goals will determine what level of labor you will need, how you will proceed with marketing, and what type, size and location of land will best match your goals.

Finding Land

There are various ways to search out and purchase or lease land. Some landowners are willing to let someone grow on their land for no charge or a nominal fee, however, it is important to outline an agreement in written form so that both parties understand the expectations. Consider having a real estate agent or attorney assist you for your own protection.

Any real estate agent can help you buy property. Real estate agents who are knowledgeable about small acreage farming may help assist you in finding land that fits, as closely as possible, with your desired attributes. UI Extension and Rural Roots, under the banner of Cultivating Success, created Idaho Farm Link (farmlink.ruralroots.org), a website that helps match land seekers with land owners.

Natural Resources

There are many environmental considerations in selecting your farm site. These include soil, water, topography, climate, length of growing season, and wind.

Soil

The health of the soil is important for growing produce. If you will be grazing animals, the health of the soil in pastures will be important for productivity. Consider taking a representative soil sample to a lab to be tested prior to purchasing land. Understand what kind of soil, and its condition, that you are starting with, since changing the soil will often take time, money, and other resources. A soil test can tell you the nutrients (nitrogen, phosphorous and potassium), organic matter, and pH of your sample.



Figure 2. Eastern Idaho ranch, with different soils related to topography.

Your local Extension educator can help you analyze the test results for your specific goals.

With few exceptions, crop plants prefer well drained soils. Poor drainage is usually associated with large amounts of clay in the soil, high water tables, or hardpans. Drainage problems are often indicated by very dark soils that are high in organic matter or that have gray-green streaks in their profile.

The USDA Web Soil Survey can help you find out generally what type of soil you have on site, although it is difficult to get detailed information for small acreages or areas (http://websoilsurvey.sc.egov.usda. gov/App/HomePage.htm). Since each small area of your farm or site can have different soil conditions, it is important to try and get a comprehensive overall snapshot of the many different soil types that may be found throughout your property (Figure 2). Many people take several different soil samples from different areas on their land. The more you know, the better your understanding will be about what your land can easily grow and sustain, as well as what you will need to do in order to become an excellent soil steward on your property.

Water

Farms may or may not have water rights and this is important to understand before signing a lease or purchasing land. Various farm enterprises require differing amounts of water. Determine what sources of water are available and what your water rights will be. Wells, springs, streams, lakes, and farm ponds are all used to supply water for livestock and irrigation in

Idaho (Figure 3). For your water source(s), determine if the water is seasonal or year-round, the capacity, whether you have legal access to the water, and how much accessing the water will cost. Wells can be localized, meaning one neighbor may have very little water and another may have an abundance. Attempt to find out what the water supply is throughout the seasons, from the existing landowner.



Figure 3. Example of an irrigation system pulling from an open water source, on a farm in south-eastern Idaho.

Irrigation

Some parts of the state that have an abundance of water have used furrow irrigation and also overhead sprinkler systems. Newer technology in drip systems helps those areas with limited water to use that water more efficiently for vegetable row crops and fruits. Drip irrigation systems are very efficient at placing water exactly where you want and use much less water to produce a crop than overhead or furrow systems. Disease problems are reduced when compared with overhead irrigation systems because the foliage and fruit are never sprinkled with water. Weeds can be minimized as they do not receive water. Drip systems, however, can be expensive to install and maintain, and require clean, high quality water to prevent the emitters from clogging. Plugged drip emitters are much harder to spot than plugged overhead sprinklers, and maintaining uniform irrigation requires constant scouting and maintenance. Drip tape can be cleaned out at the beginning of each season to prevent clogging. Drip systems generally either require level fields or must be laid across slopes to maintain an even level on each line.



Photo courtesy of Sarah Bennett & MaryJane Butters.

Skylines Farm

Melissa Lines of SkyLines Farm in Harvard, Idaho, set a goal to locate property for a livestock farm to produce premium sheep wool and breeding stock; grass-fed lamb, beef, and pigs; and livestock guardian dogs, as well as provide on-farm educational opportunities.

To accomplish her goals, she evaluated the resources available on prospective properties, focusing first on assessing natural resources. Adequate pasture space, fencing, and animal shelters were important.

Melissa also worked to find land that had year-round water access. After much searching, she located property with a seasonal creek and pond, a year-round pond, and an adequate well. She researched the local climate because she wanted to be able to graze livestock for seven months of the year. She also discussed her plans with the local Extension office, neighbors, and area feed stores to better understand the environment of the land.

With the major resources assessed, Melissa began to evaluate other resources she would need for a successful small farm. Assessing the available market for her commodities led Melissa to survey the local area food centers, animal dispatching facilities, livestock sale yards, and internet sales for the premium wool produced at SkyLines Farm. She concluded the area could support her desired agri-business ventures.

"Every farm and every farmer is different," Melissa says and she advises all beginning small farmers and ranchers to do a lot of planning, especially regarding resource evaluation. She encourages others "to know your farm and resources and create a farm plan that works for you."

Forest

Some farm sites have forested land that can be used for income or in other ways as part of a farm business or homestead. Consider whether this is a priority for you in selecting land—you may want to plant forest trees, windrows or other types of buffers. You will want to decide if you need acreage that has room for trees. Some crops may produce lower yields near forest land due to microclimate or soil characteristics. Local offices of the federal Farm Services Agency (FSA) may be able help potential buyers learn the production history of a farm or farming area.



Figure 4. North Idaho topography.

Topography and Slope

The slope, orientation, and surroundings of a site have a profound impact upon the land's suitability for crop and livestock production (Figure 4). Is the site level enough to accommodate the agricultural operation you are planning? Although a slope can improve air and water drainage, steep slopes increase erosion and interfere with farm operations. Steep terrain can also create serious safety hazards for livestock or when tractors or other equipment are used.

Climate

Climate is an important consideration in deciding whether to grow a crop in a given area. Generally, grapes and peaches, for example, are adapted to milder climates with the exception of varieties bred for colder zones. Cold, snowy winters and short growing seasons make the commercial production of most varieties of these crops difficult in northern, central, and southeastern Idaho. Other crops, such as blueberries and many types of ornamental nursery stock, thrive in a cool mountain climate. Many varieties of fruits and vegetables are well-adapted to Idaho climates. University of Idaho Extension has many publications on small farm and gardening topics. Growers may want to review the various publications in the series: Short-Season, High-Altitude Gardening Publications & Resources found at www.uidaho.edu/extension/ publications. Greenhouse production can assist with extending the growing season in a given area.

Length of the growing season

The time between the last frost of spring and the first frost of fall, or the number of growing days, is a major consideration in selecting a site, since many actively growing plant tissues cannot tolerate temperatures below about 28°F. Most annual crops are not planted until the danger of frost has passed, and crops normally must be harvested before the first fall frost. Frost dates are especially important to fruit and vegetable growers who can lose blossoms, fruit, or plants to spring and autumn frosts.

Average growing seasons in Idaho vary tremendously from one location to another, from as few as 30 days to as many as 154 days. To calculate the number of growing days in your area, count the days between the average last frost to the average first frost. The National Oceanic Atmospheric Administration

has data for Idaho online: www.ncdc.noaa.gov/climatenormals/clim20supp1/states/ID.pdf.

To identify your hardiness zone, USDA has an interactive map online: planthardiness.ars.usda.gov/PHZMWeb/. If you use the Plant Hardiness Zone Map published by the U.S. Department of Agriculture to select a commercial crop and site for Idaho, select a crop that is at least one, and preferably two, hardiness zones colder than what is listed for your site. The Plant Hardiness Zone Map is also published in many nursery catalogs.

Except for the Clearwater River valley and the area around Lewiston, most of northern, central, and southeastern Idaho are best for crops that are adapted to short or very short growing seasons. Long-season crops are more typically produced in southwestern Idaho. On marginal sites, you might have to use overhead sprinklers, wind machines, or other devices to prevent frost damage. The cost of such frost protection can be high. For nursery stock and Christmas tree producers, early fall freezes and late spring thaws can impede digging or planting operations.

Minimum winter temperatures

Cold winters are a limiting factor in the production of some livestock and perennial crops in Idaho. Crops such as grapes, blackberries, and peaches are injured or killed at relatively mild freezing temperatures. In evaluating the suitability of a site and enterprise, you must consider occurrence of frosts, the time of year for the first and last killing freeze, as well as the average minimum temperature.

Most perennial crops require several years to come into production, and some remain in place for 10 to 50 years or more. Even if you get a killing freeze only every 5 to 15 years, this can have significant financial consequences.

Day/night temperatures

Plant growth is largely determined by soil and air temperatures, and different plants have different temperature requirements. Broccoli, for example, is a cool-season crop that grows very well in locations with short growing seasons and cool nights.

Tomatoes and sweet corn, on the other hand, are warm-season crops that require higher temperatures to set and mature crops. Many locations in northern,

central, and southeastern Idaho are characterized by cool nights. Trying to ripen tomatoes or other warmseason crops under these conditions can warrant the use of season-extension methods. Be sure to select a site where growing-season temperatures are compatible with your intended enterprise.

Winds and Air Movement

Consider the direction, frequency, duration, and velocity of prevailing winds. These factors are important in selecting trellis systems and row orientations. Some plants are especially susceptible to leaf damage caused by frequent or harsh winds. In southern Idaho, wind-blown sand can severely damage some crops. Windbreaks may be necessary for windy sites.

Adequate air movement is a factor in minimizing frost damage, freezing injury, and disease problems. Low sites or those that are surrounded by dense stands of trees collect heavy, cold air and increase frost and freezing problems. Such sites also trap moist air and restrict air movement that is needed to dry off foliage and fruit after rains or irrigation. As a result, bacterial and fungal disease problems are greatly increased. These types of low areas are called "frost pockets." Try to choose a site that has an outlet for cold, moist air. Gentle slopes or benches above the level of temperature inversions are optimum sites.

Frost and low temperatures that damage crops are some of the hazards that farmers cannot control. Some farmers, therefore, protect their crops with row covers or use greenhouses to grow.

Precipitation

Annual precipitation in Idaho ranges from less than 10 to more than 60 inches per year. Even in high rainfall areas, summers are often hot and dry, and irrigation is necessary for many annual and perennial crops. In high rainfall areas, prolonged wet weather during the early spring can create disease problems and prevent timely planting. Heavy snowfall can cause broken branches, collapsed greenhouses, or stranded livestock, but also helps to insulate plants from severe winter temperatures and is an important source of water for irrigation and livestock. The following website has climate data including precipitation: www.usclimatedata.com/climate/idaho/united-states/3182.

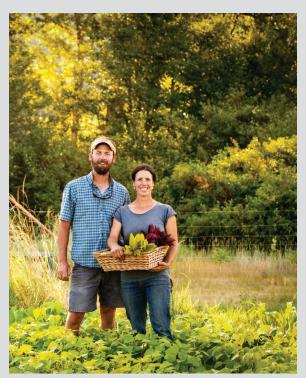


Photo courtesy of Ilona McCarty, Open View Photography.

Swift River Farm

Jessica McAleese and her partner, Jeremy Shreve, of Swift River Farm have farmed in several different places in Idaho and the Northwest. Regarding leasing land, Jessica says, "It was great as a beginning farmer to have that freedom and not the capital outlay."

At a certain point they wanted to own their own farm. They visited many areas of the Northwest and chose Salmon, Idaho. On their journey, they evaluated over 30 different pieces of land before deciding what to purchase. To evaluate the land that they were interested in, they assessed the well, water rights, soil, house, and barn, and developed a detailed pro/con list. They approached a land owner and built a relationship over three years before purchasing. The landowner separated 10 acres for Swift River Farm. The local Land Trust provided a loan.

This example of acquiring land is unusual but demonstrates the creativity Jessica and Jeremy used and the willingness to support and value small acreage farming by the land owner and local land trust.

Sun

Sunlight provides much of the energy green plants need for growth and survival. Anything that reduces light exposure, such as mountains, trees, or buildings, reduces the energy available to plants shaded by those obstacles. Many crop plants require full sun with at least six hours of sunlight daily to thrive.

Sites with southern or western exposures warm more quickly in the spring and are warmer throughout the year than sites with northern or eastern exposures because they get more hours of sunlight. Warm early spring temperatures encourage earlier growth and flowering, which may be desirable, but also increase the potential for frost damage. Planting deciduous tree crops on southwestern exposures increases the likelihood of sunscald on trunks and branches because of the more direct sunlight during the winter.

Nearby Water Bodies

Open water is cooler than surrounding land in the spring and warmer during the fall and winter. Cool air blowing in from large lakes delays both blooming in the spring and frosts in the fall, thereby reducing the likelihood of frost damage. Once water freezes, however, its moderating influence on temperature is lost.

Because prevailing winds in the northern hemisphere move from west to east, sites along eastern shores experience a greater moderating effect than those on western shores. However, an important point to remember is that the amount of influence a body of water has on a site is dependent upon its size. The climate in northern Idaho is moderated by the Pacific Ocean hundreds of miles away; a few miles further east in Montana, the climate is largely impacted by continental air masses from the Arctic, so locations there are much colder.

Pests and Problems

Few things are more frustrating than working hard all season, only to have your crop or livestock wiped out by pests or diseases. In many instances, however, proper selection of site and crop or livestock can greatly reduce pest and disease problems. Your local Extension office can help you learn which pests, weeds, and diseases are endemic to the area in which you're interested. Insects, nematodes, mites, voles, gophers, deer, elk, and even bear can wreak havoc in farming operations.

Nematodes

Parasitic nematodes, tiny worm-like pests, can damage vegetable plants. (Note: some nematodes are beneficial.) If nematodes are a problem in your area and you plan to raise susceptible crops, you can have the soil on prospective sites tested for nematodes. Soil sample collection should follow a proper protocol and be sent to a nematode testing laboratory. Your local University of Idaho Extension Educator can help guide you in proper sampling and locating a testing facility. To control nematodes, crop rotation is recommended in dryland farming systems and fumigation can be used in commercial operations but is not always cost-effective. Selecting a site free of these pests is a better control method. More information on nematode research can be found at: www.extension.uidaho.edu/crops.aspx.

Forest-Farm Issues

If you are looking for forested lands to augment your farming activities (or for other reasons) you will want to consider relationships between plant communities. While some plants benefit from particular plant neighbors, other planting combinations contribute to pest and disease problems. For instance, if you're planning a spruce nursery, you may prefer a site that is not surrounded by Douglas-fir, an alternate host of the spruce gall aphid. Planting black currant cultivars susceptible to white pine blister rust on a site surrounded by white pine is an open invitation to problems. Sites that have or are surrounded by tall trees are poor locations for berry crops because birds roost in the nearby trees and feed on the berries.

In many regions of Idaho, deer and elk frequently cause substantial crop losses. Berry and young tree fruit crops, ornamental nursery stock, vegetables, forages, small grains, and young poplar woodlots are particularly susceptible to predation, even in populated areas. The only effective method of keeping these pests out of a field is to install a tall fence, generally, 8 feet minimum, or a system of shorter fences. Before purchasing a site, determine if deer or elk predation might be a problem. If it is, figure the cost of fencing into your budget. Also consider how you will protect your livestock from wild predators.

Toxic Plants

Another frequently overlooked factor in site selection is toxic plants. Idaho is home to a number of plants that can be poisonous or injurious to people and livestock, ranging from poison ivy and stinging nettle to water hemlock and nightshade. Poisonous weeds are a special concern in U-pick and livestock operations, but can present problems to all farm workers and visitors. If you plan to raise specialty livestock, make sure that your site is free of toxic plants, such as yew wood.

Physical Assets

Every farm has onsite physical assets to consider (see figure 5). These may include buildings such as a house, barns, and sheds, as well as other assets such as well pumps; access to power and phone, cable or Internet lines; access to roads; etc. The condition of buildings and other parts of the physical systems or infrastructure are important considerations in evaluating your investment in the property. If the property you are purchasing has old buildings, you will want to have a financial plan for maintaining or replacing those structures if they will be needed as part of your farm operation. If you are purchasing previously unfarmed ground, it is a good idea to spend some time to calculate the expenses related to building the infrastructure you will need in order to operate your farm/ranch.



Figure 5. Assets can include buildings such as this north Idaho Century Barn and fencing.

Nearby Industry and Agriculture

When evaluating a site, always consider the neighbors and their practices. Pesticide vapors, spray drift, and surface runoff water contaminated with herbicides and other pesticides can kill or injure susceptible plants and make crops unmarketable on adjacent fields.

Pests, weeds, and diseases can also spread from adjacent fields, woods, and windbreaks. Crops and livestock can be adversely affected by air pollution. Industrial pollutants often associated with crop damage include ozone, sulfur dioxide, oxides of nitrogen, peroxyacyl nitrate, and fluorides. Smoke or smog impact plants by reducing light intensity and, thereby, photosynthesis. In rural locations where gravel or dirt roads are common, large amounts of road dust can contaminate crops and interfere with livestock operations. Some counties will spray a dust-reducing chemical on the road for a fee.

When visiting the local planning department, ask if any development is planned in the area where you are purchasing or leasing land, to help avoid future problems. Most agricultural areas are operating at an industrial level. Small operators may want to stay on the outside of that activity rather than siting a farm as an island within it.

Marketing Farm Products

If you plan to direct-market your product through a roadside stand or on-farm sales, you should have a highly visible location that is easily accessible from a main thoroughfare and provides ample and convenient parking. Before opening a stand, determine whether there is sufficient traffic in the right season and at the right times of day to support the stand, and whether that traffic is made up of people who are likely to stop and buy your product. Make sure that potential customers driving by can see the stand soon enough to stop safely and comfortably. Evaluate the site critically and ask yourself if it is conducive to shopping. Or is it surrounded by junkyards, dilapidated buildings, or malodorous industries? Be sure to check into local city or county rules and regulations concerning roadside stands.

Site History

When discussing land options with the local planning department, you may be able to learn more about the history of a particular piece of land. Sometimes the assessor's office will also be able to tell you what activity has taken place on a particular piece of ground. Land that has not been used may have more nitrogen in the soil, but may also have more weeds if it has been unmanaged.

Legal and Regulatory Considerations

Buying land and operating a business involves following regulations. Each type of product, such as dairy or nursery products, has its own rules and regulations. In order to protect yourself, it is important to understand and follow applicable local, state, and federal guidelines and regulations before beginning any agricultural endeavors.

When you are beginning to look at land and meeting with a real estate agent, also make time to talk with your planning and zoning administrators in the city or county where you intend to operate. Explain what you want to do. Find out what regulations, codes, and development permits apply. Make sure zoning and any applicable covenant regulations allow you to carry out planned operations now, and also will allow you to grow and diversify in the future. If you will need additional barns, you will need to make sure the codes allow you to build more structures. A small lot with buildings already on it may not be permitted for further buildings. Rural septic systems require an area of dedicated ground. Each municipality will have specific regulations for new construction and drain field replacement. Drain fields can deteriorate and need to be rebuilt, therefore, some planning departments will require lots to preserve an area for future drain fields that may not be used for building or farming activities.

Whether you are planning on operating a rural or an urban farm, make sure you are following local zoning regulations and codes. Many cities now allow certain exemptions or allowances for urban agricultural enterprises such as raising a limited number of backyard chickens, hosting bee hives, or installing a "temporary" structure such as a storage shed, greenhouse or hoop house, etc., but this can vary widely depending on your location. Will you

need any permits for outbuildings, etc.? Are there building size restrictions or set-back requirements where buildings must be a certain distance from property lines or roads?

If you are planning to create a value-added product such as goat milk or other consumable products, you will want to talk to the health district representative as well as an insurance agent. The price of liability and other insurance can be reduced if you insure your farm, house, vehicles, equipment and business in one policy. Some farmers have found health department regulations or the cost of insurance to affect their decisions about what to produce and sell.

Find out what taxes will be assessed at your prospective location(s) and whether tax incentives are available for new businesses, or if any conservation easements may help you reach your farming or ranching goals. Some communities prohibit the use of certain equipment (e.g., trailer houses) or require that certain improvements be made on property. Find out in advance what you will be allowed to do, what you will be required to do, and whether you can afford the location and/or operation.

If the land you are interested in is classified as wetland or as highly erodible, it may be regulated by federal law and you may not be able to farm or otherwise alter the site. While adjacent surface water can be an asset if you can gain access to it for irrigation or livestock, you may have to meet legal requirements to protect any designated wetlands or habitat areas; such requirements can be difficult and expensive. Research any environmental or scenic regulations and adjust your plans accordingly.

Never purchase any property without first consulting governing agencies such as the local planning department and Farm Services Agency to determine your legal responsibilities and restrictions. Find out if there are any liens or restrictive covenants on your prospective site, and whether those rules are compatible with your intended farming and ranching business goals. If you ask, the local planning department should be able to tell you of any other agencies with jurisdiction over property depending on the location and attributes of the subject parcel.

If you are working toward a certified organic operation, you will need buffers from certain types of activity. Contamination from other sites can impair

your ability to acquire organic farming certification. Consider discussing your possible land purchase with the agency personnel from which you are hoping to get certified. USDA's organic certification website: www.usda.gov/topics/organic.

Labor

As with any farm management planning process, one should determine one's labor needs and any on-site accommodations that may be needed for laborers. Determine how much labor you will need and when you will need it, as well as any associated costs. If you need to provide housing for your workers, you will also need to look into zoning or building permit regulations.

For small acreage farming production, sometimes workshare volunteers already located within your local area can help provide necessary labor. It may be the case for Community Supported Agriculture (CSA) and/or farmers market operations that you can find knowledgeable or experienced volunteers.

Sustainability

For a sustainable small farm, consider the overall ecology: how the natural resources work as a whole system. A farm operation can be run so that it yields productive crops while improving soil and water quality. Do consider future activities that will affect the overall ecology, adjacent neighbors' properties, and water quality downstream. Consider, again, Figure 4, which shows evidence that farming activity is being conducted up to the high-water mark of the stream, with no buffer zone. Research indicates that stream health, including water quality, can be improved by using protective buffers along waterways. In selecting land, you may want to determine what environmental improvements are needed or you may want a more pristine farm to begin with.

Additional Resources

University of Idaho Extension offices are located in 42 out of 44 counties in Idaho and are there to help people with agricultural questions. Your local Extension educators can help connect you with programs that are specific to your needs as a small acreage farmer or producer.

University of Idaho Extension has many publications for small acreage producers at: www.uidaho.edu/extension/publications.

Land Evaluation Checklist

Selecting Your Enterprise

- 1. What is the intended crop or livestock?
- 2. What are the climatic and cultural needs of your crop(s) or livestock?
- 3. What pests, diseases, and other serious concerns might you encounter?
- 4. Is your product intended for the fresh or processing market?
- 5. If your product will be processed, will you:
 - a. ship it to a processor?
 - b. create your own value-added product?

Your Resources

- 1. Skills
 - a. Do you have production and marketing skills?
 - b. Will you need to hire a manager?
 - c. Is a qualified manager available?
- 2. Capital
 - a. Do you have the necessary capital?
 - b. Can you obtain sufficient capital?
 - c. How much will obtaining capital cost you?
 - d. What financial rate of return do you expect?
- 3. Land
 - a. Do you now own or rent a suitable farm site?
 - b. How much does it cost to own or rent the site?
 - c. How much will it cost to buy or rent a site?
 - d. Are there any required site improvements?
 - e. How much will site improvements cost?
- 4. Facilities
 - a. What facilities will your enterprise require?
 - b. Can you build any facilities yourself?
 - c. What will any new required facilities cost?

Marketing

- 1. Where is your market?
- 2. How will you get your product there?
- 3. Roadside stand
 - a. Is there sufficient traffic of people who will buy your product?
 - b. Is the stand easily visible?
 - c. Is there easy access and parking?
 - d. Are the surroundings conducive to marketing?
 - e. Can you place advertising signs along the road?

- 4. Local direct sales
 - a. Is there a large enough population nearby?
 - b. Will local businesses purchase your product?
- 5. Export sales
 - a. Is your product suitable for shipping?
 - b. Can you support an export business?
 - c. What is your access to truck and air transportation?
 - d. How much will it cost to export your product?

Labor

- 1. Labor needs, resources, and costs
 - a. How much labor is needed and at what times of the year?
 - b. Will workers come from local or migrant sources?
 - c. Is there a sufficient labor pool for your needs?
 - d. What will the cost of labor be?
- 2. Legal requirements
 - a. Can you meet all legal requirements for labor?
 - b. Are there sanitary facilities available for workers?
 - c. Is shelter available?
 - d. Is adequate and legal housing available?
 - e. Can you meet labor transportation needs?

Support Services

- 1. Can you form a cooperative with other operations?
- 2. Are there:
 - a. sources for equipment and supplies nearby?
 - b. processing facilities available?
- 3. Is there:
 - a. a commercial kitchen available?
 - b. production and marketing technical support available?
 - c. an experienced veterinarian nearby?

Site Considerations

Climate—What is the:

- 1. length of the growing season (number of days)?
- 2. minimum (lowest) winter temperatures?
- 3. average summer day and night temperatures?
- 4. last (spring) and first (fall) frost dates?
- 5. annual precipitation?
- 6. seasonal precipitation?
- 7. direction, frequency, and velocity of prevailing winds?

Land Evaluation Checklist (continued)

Soil — What is the:

- 1. depth and texture?
- 2. drainage and water-holding capacity?
- 3. soil pH and nutrient content?
- 4. organic matter content?

Water

- 1. How much and what quality of water will you need?
- 2. What are your water rights?
- 3. Available sources of water:
 - a. well-how deep? Capacity?
 - b. spring—seasonal or year-round? Capacity?
 - c. stream or lake-water rights? Seasonal?
 - d. farm pond-capacity? Seasonal?
- 4. How much will accessing water cost?
- 5. What type of irrigation system is desired?
 - a. flood or furrow.
 - b. overhead sprinklers.
 - c. trickle or drip.

Topography—What is the:

- 1. Slope?
- 2. Aspect or compass orientation?
- 3. Air flow across the site?
- 4. Light exposure?
- 5. Proximity to large bodies of water?

Pests and Diseases

- 1. What pests and diseases are endemic to the area?
- 2. What pests and diseases are your product(s) particularly vulnerable to?

History of the Site

- 1. Previous crops or livestock produced on the site.
- 2. Previous pesticide use on the site.
- 3. Are toxic chemicals or buried storage tanks present or detectable?

Access and Utilities

- 1. Roads
 - a. During what seasons will roads be used?
 - b. Will you have access whenever you need it?

- c. What types of vehicles use roads?
- d. Are roads suitable for transport of your commodity?
- e. Who provides and pays for road maintenance?
- f. Will your operation adversely impact the roads?
- g. Are there other residences or businesses along your roads?
- h. Can you safely and economically transport your product to market?
- 2. Is suitable parking available?
- 3. Utilities
 - a. Will electricity, natural gas, and telephones be needed?
 - b. Is there cellphone coverage?
 - c. Are these utilities available?
 - d. How much will installation and use cost?

Physical Structures and Fencing

- 1. What buildings are on-site?
- 2. Which ones can be used for the farm enterprise?
- 3. What fencing is on site? Does any fencing need to be removed, replaced, or built?

Zoning, Taxes, and Ordinances

- 1. Zoning
 - a. Will county and city ordinances and zoning regulations allow you to operate your business?
 - b. Will county and city ordinances and zoning regulations allow you to build any buildings?
 - c. Does the USDA Natural Resources Conservation Service regulate your site because it is highly erodible or a designated wetland?
- 2. Taxes
 - a. What taxes will be assessed at your location?
 - b. Are tax incentives available?
- 3. Is your site likely to be annexed by a city?
- 4. Are any improvements required?
- 5. Are there any liens or restrictive covenants against your site?

