



# What Can I Do With My Small Farm?

## Selecting an enterprise for small acreage

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**W**hen people buy a small farm, they often simply want someone to tell them what they can “do” with it. As strange as it might seem, this isn’t an easy question to answer. When landowners begin to make important decisions related to the use of their property, they might not recognize the complicated web of details involved.

Before you make decisions about your farm, it is important to consider three interconnected questions (Figure 1):

1. What are your goals for the farm?
2. What are the physical resources of the farm?
3. What are your personal resources and skills?

Your answers to those questions, plus information you gather on crop and market options, will help you choose an enterprise that makes sense for you and your farm.

For example, if your goal is a commercial enterprise, remember that small farms are comparable to any small business. They often require long hours, longterm commitment, and stamina. As with many highly successful small businesses, they require a risk-taking,

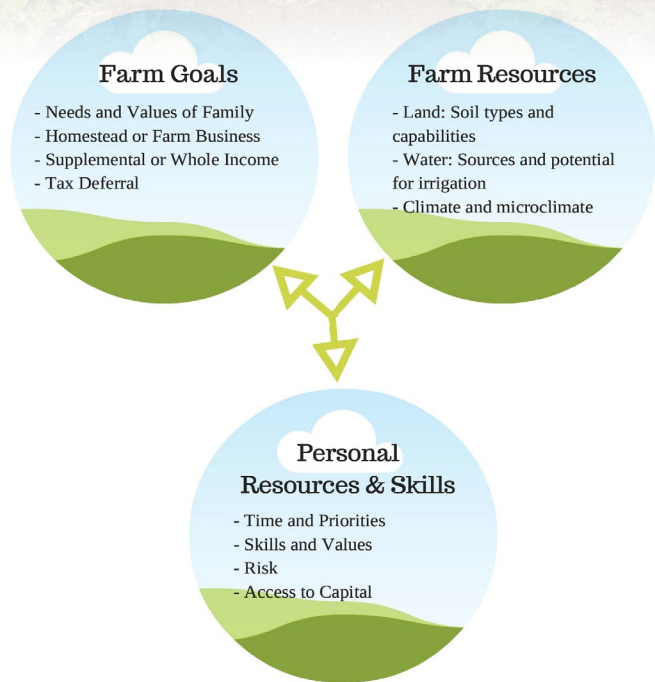


Figure 1. The major components involved in a farm enterprise decision and how these factors interact with each other.

Illustration: Chrissy Lucas, © Oregon State University

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entrepreneurial spirit. However, a small farm without a commercial venture can also provide a great lifestyle.

Your physical resources (i.e., type of soil on your farm) influence what crops you can grow. That, in turn, influences the level of potential gross farm income, if you choose to sell your crops. Your personal skills (i.e., you enjoy interacting with customers) will influence how you choose to market your products.

## I. Goals for the farm

The owners of small farms vary in both resources and aspirations. Many people are interested in having a few animals, growing some fruits and vegetables, and providing a high-quality rural lifestyle for their families. Others seek to manage a small farm intensively to produce an income.

The goals you set for your small farm must realistically consider the needs and values of family members, your financial situation, the farm- or business-related talents of family members, and more. Do you view the farm as a “homestead” and a way to achieve quality of life for the family, or do you



Small farms vary in both resources and aspirations, with goals ranging from homesteading to producing an income.

Photo: Melissa Fery, © Oregon State University

want the farm to operate as a business and produce an income for your family?

## A. Homesteading

Rural areas are attractive places for families to live. A great deal of satisfaction can come from experiencing farm life without the pressure to make a profit. In this situation, off-farm income supports the farm’s activities.

In addition, many small-farm families wish to replace some of their purchased food with some homegrown foods. This can be extremely satisfying and surprisingly easy. Depending on conditions, 2 acres will produce a year’s supply of vegetables, ample fruits and berries, and some meat. Another 2 acres of well-managed woodlot can heat a well-constructed house indefinitely. This path is different from a commercially focused farm but is very appropriate for many families.

## B. Farm business

Farming in order to produce income is serious business. It should be approached with thorough planning and realistic expectations. Consider these questions:

- Are you realistic about how much income you expect to earn?
- Do you have the necessary startup funding? If not, how will you obtain it?
- Who will do the work?
- Do you have or can you obtain the necessary business skills to help the farm succeed?

On most small parcels, land prices are not based on the value of the land for use as a farm. Most small parcels sell for their real estate market value rather than for what a conventional farmer would consider a “fair farm” price. The rental value of farm land is \$75 to \$300 per acre annually but the cost of buying land is typically much higher.

It is challenging to expect such a parcel to pay for itself, much less the cost of the house or other nonfarm improvements. However, with intelligence and persistence it is possible to make money from a small farm. Many small farms in Oregon are producing excellent crops that are marketed in creative ways. The potential definitely exists.



Growing a crop that you enjoy working with and believe in will get you through hard times and help you market it.

Photos: Lynn Ketchum, © Oregon State University



Sending a composite sample of your soil to a lab will provide information needed for understanding crop growth.

## II. Physical resources of the farm

Not all farms are created equal. They vary widely in the types of crops they can grow. A farm's capability to grow various crops is related to its physical resources: soil types and slope, access to irrigation water, and climate. These physical resources might seriously restrict the types of crops that can be grown or might provide nearly unlimited options. Successful farming relies on your ability to choose crops that match your farm's capability.

### A. Land—types of soils

Soils are complex mixtures of sand, silt, and clay. The relative abundance of these soil components determines which soil type you have. The types of soils on your farm are directly related to crop options. The better your soil, the more options you have. Some soils can be improved by enhancing drainage and soil tilth but will never be as versatile as soils with few limitations.

Soil maps, published in soil surveys for each county, allow you to identify the soil types on any land parcel. Soil surveys include descriptions of each soil type and give some indication of the soil's strengths and weaknesses for agriculture and

forestry. To learn more about your soil types, access the Web Soil Survey online (see sidebar, page 4).

A soil nutrient analysis (soil test) is a next step to better understand your soils. Collecting soil from your property and sending a composite sample to an analytical laboratory will provide information needed for understanding crop growth factors such as pH, buffer pH, organic matter, and nutrient content. For a complete guide on how to take a soil sample, see [A Guide to Collecting Soil Samples for Farms and Gardens \(EC 628\)](#).

Understanding soil types should greatly influence any land investment decision. You may also need a certain critical acreage to produce some crops economically. For example, growing grain for a wholesale market on less than 200 acres may not support the purchase of all the equipment needed to grow and harvest the crop. While garlic can be produced on small plots of 1 acre or less (using hand labor and a rototiller), 5 acres is probably needed to justify a fully mechanical operation and provide for crop rotation.

If you are planning to grow higher-value specialty crops, you will be better off with 5 to 10 acres of land with Class I soil, a water right, and strong markets

## Web Soil Survey

The U.S. Department of Agriculture Web Soil Survey can help you create a soil map of your property. You'll be able to identify the types of soil you have and learn more about how they function, including infiltration, available water holding capacity, depth, structure, restrictive features or limitations such as risk of erosion and compaction, and capability class. If you are planning to purchase property, taking a look at the soil's capability class and matching it with the crops you plan to grow is the best first step.

<http://websoilsurvey.sc.egov.usda.gov>.

## Soil Capability Classifications

Class I soils	Soils have few limitations that restrict their use.	Soils are capable of growing nearly any crop.
Class II soils	Soils have moderate limitations.	Soils are capable of growing most crops but may require some conservation practices.
Class III soils	Soils have severe limitations for growing cultivated crops.	Soils may require conservation practices such as artificial drainage or erosion prevention to grow cultivated crops.
Class IV soils	Soils have very severe limitations for growing cultivated crops.	Soils will require very careful management.
Class V–VIII soils	Limitations are impractical to remove or unsuitable for cultivation.	These soils may be suitable for permanent pastures, forestland, or wildlife areas.

nearby. If you are interested in livestock and grazing systems, larger tracts of isolated farmland with marginal soils may be ideal and available at a lower cost per acre.

### B. Water—potential for irrigation

Water is another critical resource that determines crop options for your farm. Most, although not all, high-value crops require irrigation beyond natural rainfall. Nurseries are heavy users of irrigation, as are many vegetable operations. In areas such as western Oregon, Christmas trees, wine grapes, garlic, rhubarb, asparagus, grains, and hay can be grown without irrigation. In certain conditions, strawberries, raspberries, and some vegetable crops (e.g., tomatoes, potatoes, pumpkins, watermelons, cantaloupes, winter squash, zucchini, corn, and beans) can also be grown without irrigation, though there could be impacts on quality, yield, and plant vigor. Several Extension publications detail crop water-use requirements at various locations in Oregon. The estimates take into account irrigation method, crop growth stage, and weather.

In Oregon and other western states, water resources are controlled by state authorities and



In certain conditions, some vegetable crops, like this 'Allure' sweet corn and 'Dark Star' zucchini in Shively, California, can be grown without irrigation using dry farming management practices.

Photo: Amy Garrett, © Oregon State University

## Irrigation resources

Western Oregon Irrigation Guides (EM 8713), for farmers in the Willamette Valley, cover the primary field, row, and orchard crops. These guides give an overview of the decisions and factors that go into irrigation system design, operation, and maintenance. They include 16 crop-specific fact sheets that cover many of the major crops grown in the valley. For information on irrigation and water usage in eastern Oregon visit <http://www.cropinfo.net/water/waterUsage.php>.

## Find out more about your water rights

In Oregon, contact the Water Resources Department, 158 12th St. NE, Salem, Oregon 97310. Phone: 503-378-2496. Web: <http://www.oregon.gov/OWRD/pages/index.aspx>.

This page provides a map and contact info for Oregon watermasters: [http://www.oregon.gov/owrd/pages/offices.aspx#region\\_watermaster\\_map](http://www.oregon.gov/owrd/pages/offices.aspx#region_watermaster_map).

are distributed to landowners as “water rights” (the right to use a specified amount of water) based on historic use and the quantity of water available for agricultural use in a given year. This system prevents one landowner from damming a river that serves many other landowners and provides minimum stream flows for fish, recreation, and other beneficial uses. If water resources in a basin become limited, those with the oldest water rights get the water.

Your ability to irrigate is based on your farm’s water rights. Water rights determine whether your farm may access irrigation water—and how much—from designated irrigation wells on your property, rivers, streams, or other bodies of water.

Rainwater captured and stored from artificial impervious surfaces such as roofs or driveways is exempt from these rules.

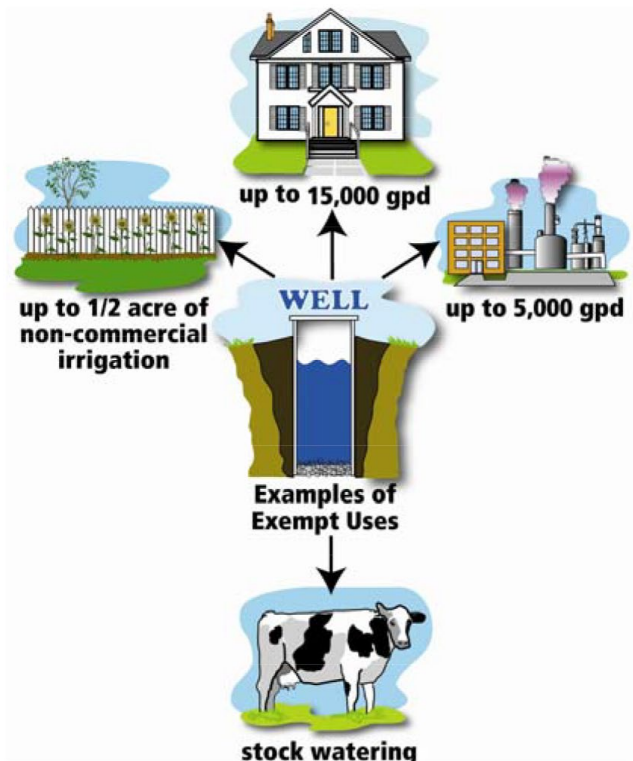
If your land does not already have water rights, you might not be able to get them. Check with your local watermaster about water rights attached to a particular parcel or about the potential for the development of new water rights in your area. Water rights transfer with the property if a farm is sold. Domestic wells may not be used to irrigate a commercial agricultural crop.

Water quality concerns such as salt content, pH, bacteria, or specific minerals in the water can affect its suitability for irrigation, food safety, and domestic use. It is recommended to have a detailed water analysis done before purchasing a property with existing water rights from a well or surface water source. A list of accredited labs is available at: <http://lams.nelac-institute.org/search>.

## Domestic well exemptions

Most rural properties have a domestic well, which is intended to supply up to 15,000 gallons per day for household use. A domestic well may also be used to irrigate up to ½ acre of lawn and noncommercial garden and provide drinking water for livestock.

### Current statute (ORS 537.545)



Each use is a separate exemption. For example, irrigation of lawn and garden is not included in the 15,000-gallon-per-day exemption. One well could serve multiple exempt uses.

Illustration: Oregon Water Resources Department

### C. Climate and microclimate

Climate and microclimate both influence what can be grown on any given farm. A geographic area's climate refers to the generally predictable patterns of temperature and rainfall across the seasons. Your climate zone will affect which crops you can grow (e.g., bananas or apples), based on the plant's ability to survive the area's temperature extremes and the potential for enough heat to mature the crop. Some crops must accumulate a certain number of heat units ("degree days") in order to grow and mature. Many crops require more degree-days than are available in some locations.

The number of frost-free days (i.e., length of your growing season) is another way to define your climate. Oregon's Willamette Valley has approximately 150 to 250 frost-free days per year. In central Oregon, frost-free days range from 80 to 100 per year. Oregon's coastal areas are similar to the Willamette Valley, but temperatures don't get warm enough to ripen certain crops, including most tomato varieties and certain grape varieties. Considerations such as sun exposure, rainfall amounts and pattern, and air movement are also critical to success for many crops.

The crops already grown in a geographic area are a reasonable indication of climatic limitations. If your proposed crop is not grown locally, there might be some very good reasons for its absence. This does not necessarily mean it cannot be grown, but there may be significant limitations to its production that you must discover and address. New varieties being developed may also be considered.

### Crop modeling tool

CROPTIME is a vegetable degree-day modeling tool that can help schedule planting to meet harvest targets for the season. During the summer, actual weather data is used to automatically improve harvest predictions. CROPTIME also informs users about weed and nitrogen management. For more information visit: <http://smallfarms.oregonstate.edu/croptime>.

Climate change and increased weather variability are also important factors affecting crop choices and management decisions. Potential impacts include reduced snowmelt, which will limit summer irrigation, and higher temperatures and drought, which are likely to increase plant diseases, insect pests, and weeds, as well as cause heat stress for crops and livestock.

Oregon has two major climatic areas and many variations within each one. The mild, maritime climate on the west side of the state favors many crops. It is estimated that more than 800 crops have been grown in the Willamette Valley. Yet, dry summers require irrigation for most high-value crops. The east side of the state (including central Oregon) is more arid and tends toward extremes of heat and cold. Hardy, dryland types of crops tend to be better choices, although irrigation opens up numerous other crop options.

Microclimate is related to more localized land variations, such as how air drains and collects on the land and how natural features, such as small bodies of water, moderate temperatures. The tendency for a farm or a specific area on a farm to have early or late

### Plant Hardiness Map

The U.S. Department of Agriculture Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are most likely to thrive at a location. The map is based on the average annual minimum winter temperature, divided into 10°F zones. Detailed, searchable maps are available at <http://planthardiness.ars.usda.gov>.

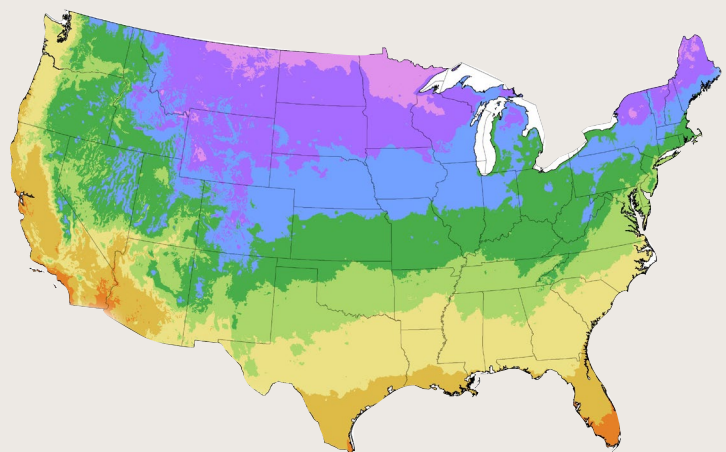


Illustration: U.S. Department of Agriculture

## USDA Regional Climate Hubs

The U.S. Department of Agriculture established seven regional climate hubs in 2015 to help agricultural producers mitigate the effects of climate change. The climate hubs are intended to streamline efforts to respond to climate change and prepare for the challenges of drought, heat stress, excessive moisture, longer growing seasons, and changes in pest pressure. The Pacific Northwest Hub is based in Corvallis, Oregon. For more information, visit [http://www.usda.gov/oce/climate\\_change/hubs/NorthwestFactSheet.pdf](http://www.usda.gov/oce/climate_change/hubs/NorthwestFactSheet.pdf).

frosts (or no frost at all) that are different from the surrounding area is an example of a microclimate. A microclimate can make it possible to grow a crop not normally grown in an area, or it can make it impossible to grow some crops that are grown on surrounding farms.

Altering the climate equation takes skill and resources but can be done to grow particular crops.

Here are some examples:

- Farming regions in Switzerland have built rock terraces to plant wine grapes. Rocks hold the heat of the day and create a microclimate around the vines that allows the grapes to mature where otherwise they would not.
- Installing field drain tile will help move water out of the profile more quickly (important for early tillage) and warm the soil as well. This is important for early seed or transplant growth.
- Use of transplants (purchased or farm produced) gives your vegetables and flowers an early start.
- When planting outside, you can use row covers to increase heat and improve plant growth in the early season. Hoop houses can do this on a larger scale and for a longer time.

These examples show you how you can modify your microclimate to produce crops that otherwise would not do as well on your farm. Modifications will have an associated cost, so keep in mind that you may be competing in the marketplace with farmers who don't have those costs and may therefore have a pricing advantage.

## III. Personal resources and skills

### A. Skills and values

Whether your enterprise fits your family's goals and abilities is a big factor in its success. For example, families often take on a farming enterprise based solely on financial goals. They might discover they really do not enjoy the crop they grow, and the work becomes drudgery. Here are some things to consider:

Use your strengths:

- What do you love to do? Growing a crop that you enjoy working with and believe in will get you through hard times and help you market it. Don't force yourself into a type of farming based solely on external factors. If your real love is working with animals, you might not be happy owning a nursery.
- What do you know how to do? In addition to growing things, farming is made up of many important skills—mechanical, bookkeeping, problem solving, management, marketing, and so on. Involve yourself and other family members in farming tasks for which they have some related training.
- What do you do well? People have a variety of abilities—for example, a knack for nurturing calves, growing bedding plants, or engaging with customers.



It's important to read everything you can get your hands on and to talk to all sorts of people about the enterprise you are considering.

Photo: Teresa Matteson, © Oregon State University

Be aware of how you and your family want to live:

- Understand the production calendar for the crop you are considering. How do you feel about the schedule? Does it fit with off-farm work schedules? Does your family like to take a long vacation during the summer? How important are holidays? For example, if you plant Christmas trees, harvest may interfere with winter holidays.
- Do you like to manage people? Are you willing to hire and manage outside help? As you consider expanding a farm operation, remember that you will need to hire and manage more employees. If you are considering agritourism, how public do you want your farm and life to be?
- Direct marketing usually involves a lot of contact with people, including many new faces on a regular basis. Do you like interacting with people?
- Livestock need to be cared for 24 hours a day, 7 days a week. If you want to have animals, how will you plan for this?
- Is the whole family excited about farming? Moving to a rural environment can cause stress to family members who prefer a more urban lifestyle.
- What is your comfort level with risk? Do you thrive on a bit of it, or does it scare you? Some crops pose little financial risk but promise little income. Other crops have the potential for greater profits but pose higher levels of production and market risk.

## B. Risk

Farming, as with any business, involves financial risk. All crops require you to spend money in advance to establish the crop. What is returned when the crop is harvested is determined by the skills of the farmer, the weather, and what happens in the market. Some crops, such as tree fruits, might require several years before any income is realized. Potential crop failure, sometimes several years in a row, is a potential risk that needs to be recognized. Knowing in advance where you stand financially and your capacity for taking risks will influence the types

of choices that best fit your situation. Consider the following questions:

- What can you invest in startup and operating costs without putting your family at financial risk?
- How long can you wait for the crop to begin to create some cash flow? How long can you wait for the crop to generate some profit?
- How much can you afford to risk financially due to fluctuations in the market? If the market price is high when you plant but low when you harvest, what will happen?
- How much time and money can you allocate toward selling your crop?
- What financial obligations are you taking on with the farm? Make up cash flow and enterprise budgets and frequently re-evaluate them against your experience.
- What are your benchmarks for success, and when is it time to change your strategy?
- What if frost wipes out your crop or disease hits your herd? Can you survive the highs and lows of an agricultural business? What crop insurance options are available for the crops you are growing?

Your answers to these questions may change over time as you gain experience. It is important to reassess on a regular basis, perhaps every season.

## C. Access to capital

For many new farmers, it can be a challenge to finance a new agricultural business. Often, new farmers launch their enterprises using family resources, including off-farm income. For most small farmers, financing (loans from banks and other lenders) is generally available after they can show several years of successful experience.

USDA's Farm Service Agency (FSA) now offers a suite of financing options specifically designed for beginning farmers, veterans wishing to enter farming, and limited resource farmers. These options include loans to purchase land, operating loans, and microloans. In the Pacific Northwest, [Northwest Farm Credit Services](#) also offers an array of such programs (in addition to banking and insurance services).



In addition, cost-share programs offered by USDA's Natural Resource Conservation Service (NRCS) can fund some infrastructure projects, such as high tunnels, some types of fencing, and water-conservation projects.

If you decide to seek financing, consider these issues:

- Small farms may lack “bankable” equity, so lenders want tangible evidence that you can produce crops and sell them at a profit. A small farm might be well capitalized with two incomes but have little hard collateral or loan history. Keep good records, including any farm tax records (Schedule F), to demonstrate credit worthiness.
- Experience is the hardest quality to prove and the most difficult one for a lender to assess. A documented, 3-year track record showing successful progress for the farm is the best information you can bring to the table. Learn to keep meticulous records and analyze them from a business perspective.
- Small farmers represent a large part of the potential credit market in terms of numbers but not in loan volume. From a bank's perspective, the earning potential from a large loan is much greater than that from a small one while the same time and paperwork are needed for both.
- If the first mortgage on a property is large relative to a conservative estimate of liquidation value, it might be tough to get an operating loan.
- Lenders want to see that you and the farm have the capacity to weather both mistakes and external factors like changes in markets or rising input costs.

It is not impossible to secure credit, but it takes a lot of planning and a solid financial record. Many small farms use personal credit cards to start or expand their farms, though this method is risky and expensive.

When you do get a loan, plan very carefully how you will use the money. Most successful farms use debt wisely, spending borrowed money for the greatest benefit for the business.

## Programs to help with financing

Farm financing assistance can come in many forms including:

- Traditional bank loans
- Federal programs
  - USDA
  - Farm Service Agency
  - Natural Resource Conservation Service (NRCS)
- State programs
  - Beginning and Expanding Farmer Loan Program (Aggie Bond Program)
- Individual Development Accounts (IDA)
- Microloans
- Local Small Business Development Centers

Resources to help you navigate these and other financing options include:

Friends of Family Farmers:

<http://www.friendsoffamilyfarmers.org/>

Center for Rural Affairs:

[http://www.cfra.org/resources/beginning\\_farmer/fundingsources](http://www.cfra.org/resources/beginning_farmer/fundingsources)

USDA Small Farm Funding Resources:

<http://ric.nal.usda.gov/small-farm-funding>

## IV. Selecting an enterprise

Once you have a sense of your goals, physical resources, and personal resources and skills, it's time to explore crop and market options so you can choose what to grow and how to sell it. Here is some initial guidance, but we encourage you to read everything you can get your hands on and talk to all sorts of people about the enterprise you're considering.

### A. Types of crops

Before you decide on a crop, you should know its biology, equipment needs, and marketing options in some depth. Your choice of farming method (i.e. organic or conventional) will affect the costs associated with establishing and operating your



Before you invest any significant amount of money in a crop, you should know the crop's biology, production technology, and marketing options in some depth.

Photo: Lynn Ketchum,  
© Oregon State University

farm, the amount of income from products grown, and how and where products are marketed.

The easiest crops to grow are those that have a long production history in your area. Traditional crops or varieties provide some security and few surprises other than weather and prices. If a crop has been grown in your area for a long time, there will be equipment, custom operators, and plenty of free advice. These products vary based on Oregon's climate zones but may include familiar options such as peas, salad greens, tomatoes, corn, potatoes, sheep, cattle, and so on.

If you are considering a new or nontraditional crop, plan to do a great deal of advance research and on-the-job learning. These crops might be new to your area or even to the nation. There may be little production, post-harvest, or marketing information available. The consolation is that when you have perfected the production system, assuming the product appeals to the public, you will be ahead of your competition.

For any crop, you will need time to learn how to grow it. Even if you think you might do things differently, it's a good idea to learn the traditional production system for that crop first. In many cases, it's possible to start on a small scale to give you a feel for production issues. Remember that difficulties tend to compound as the size of the cultivated area increases.

Look for enterprises that can grow incrementally, without major new investments in land or equipment, as your skills, finances, and marketing ability increase. Examples include container stock, fresh vegetables, sheep, laying hens, and beehives. Look for parts of the production system you can contract out while you learn the rest of the process. For example, you could learn to grow container nursery stock by buying rooted cuttings at first rather than building a greenhouse and propagating the cuttings yourself.

Crop rotation—not growing the same crop on the same land each year—is important for most crops for disease and weed management. Keep in mind that rotation requirements will increase your acreage needs.

It's helpful to have a realistic estimate of the potential production costs and income from each crop you plan to grow. Don't forget about harvest and market costs: for example, blueberries usually cost 55 to 60 cents per pound to harvest and transport. (See [The Costs of Establishing and Producing Blueberries in the Willamette Valley, http://arec.oregonstate.edu/oaeb/files/pdf/AEB0022.pdf](http://arec.oregonstate.edu/oaeb/files/pdf/AEB0022.pdf).)

Finding farm labor for harvest can also be very challenging. A heavy-yielding blueberry crop requires more upfront cash for harvesting and



Growing a diversity of crops can spread the risk of changes in the growing environment or market price in a given year.

Photo: Melissa Fery, © Oregon State University

delivering the crop to market than a lighter crop does.

Let's look at some of the options. Table 1 (page 12) shows costs and gross returns per acre for a variety of crops as reported from farms, both large and small, in Oregon.

These values are for conventional crops sold into traditional wholesale markets; they do not represent the higher gross receipts from direct marketing or organic and other certifications used by many small farmers. However, these values are a useful place to start and offer valuable comparisons.

The key point to take from the table is that crops differ in terms of their establishment costs, annual costs (labor and inputs), how long you have to wait until you get a commercial harvest, and what you



## Crop costs and returns

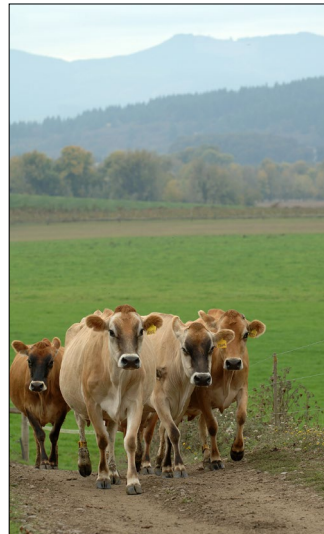
For more detailed information on crop costs and returns, visit the National Agricultural Statistics Service (NASS) Web site at <http://www.nass.usda.gov/>. NASS has information for each state by commodity with some historical data, though information is limited for some specialty crops. Enterprise budgets are also available for many crops and contain useful information on the costs of specific activities involved in producing and marketing a crop. Use Web search terms like “enterprise budget+vegetables+university.” You can contact your county Extension office for more information or visit the OSU Extension catalog at <https://catalog.extension.oregonstate.edu/>.

gross—which itself will vary based on what market channel you choose.

Also note that direct operating expenses on most crops in this table are 50 to 60 percent—or more—of gross returns. For example, an acre of nursery stock (container) has annual operating costs of \$18,000 to \$40,000 and gross revenue of \$20,000 to \$60,000. In addition to annual costs, you also need to plan for initial capital investment in facilities (e.g., greenhouses or winter houses or both) in addition to those operating expenses. This is cash up front, and, for nursery stock, \$5,000 to \$9,000 is a minimum.

The nursery example also demonstrates that it is possible to land on the wrong side of costs and returns. If costs are higher than expected and returns (yield or price received or both) are much lower,

Continued on page 13



Crops differ in terms of their establishment costs, annual costs (labor and inputs), how long you have to wait until you get a commercial harvest, and what you gross. See Table 1 (page 12) to compare livestock and forage to nursery and greenhouse.

Photos: Tiffany Woods (left) and Lynn Ketchum, © Oregon State University

<b>Table 1—Crop production costs and returns per acre</b>			
<b>Type of crop</b>	<b>Est. cost/acre</b>	<b>Annual cost/acre</b>	<b>Gross returns/acre</b>
<b>Perennial (or semi-perennial) crops</b>			
Xmas trees			
D. Fir	2,000-3,000	1,300-6,000 <sup>1</sup>	8,000-13,000 (at 6-yr harvest)
T. Fir	2,300-3,000	1,500-7,000 <sup>1</sup>	14,000-21,000 (at 8-yr harvest)
Blueberries	8,000-9,000 <sup>2</sup>	4,500-13,000 <sup>1</sup>	6,000-15,000 (full production)
Apples	10,000-13,000 <sup>2</sup>	5,500-6,500 <sup>1</sup>	6,000-9,000 (full production)
Wine grapes	8,000-10,000 <sup>2</sup>	3,500-4,000 <sup>1</sup>	4,000-7,000 (full production)
Hazelnuts	2,500-4,000 <sup>2</sup>	500-900 <sup>1</sup>	1,700-6,000 (full production)
<b>Greenhouse and nursery</b>			
Container	18,000-40,000 <sup>3</sup>		20,000-60,000 (at harvest) <sup>4</sup>
Bare root	6,000-18,000 <sup>3</sup>		8,000-20,000 (at harvest) <sup>4</sup>
<b>Annual crops</b>			
Lettuce/crop <sup>5</sup>		5,000	7,200
Radishes/crop <sup>5</sup>		5,000	6,000
Garlic (fresh)		4,000-8,000	3,000-15,000
Wheat (West O)		500-600	500-900
Cut flowers		10,000-50,000 <sup>6</sup>	20,000-60,000
<b>Forage and livestock</b>			
Grass/legume hay	600 <sup>7</sup>	125-200	150-375
Cow/calf	1,500 <sup>8</sup>	550 <sup>9</sup>	800-1,000 (for 2 acres) <sup>10</sup>
Sheep	1,200 <sup>11</sup>	500 <sup>12</sup>	900-1,100 (for 2 acres) <sup>13</sup>

Greenhouse and nursery sources—returns for 2010 plus industry contact information

[http://www.nass.usda.gov/Statistics by State/Oregon/Publications/Horticulture/2010\\_nursery.pdf](http://www.nass.usda.gov/Statistics_by_State/Oregon/Publications/Horticulture/2010_nursery.pdf)

<http://www.lsuagcenter.com/NR/rdonlyres/4371C661-291B-4551-9FE4-FCF116336ACC/49856/2008OrnamentalBudgets.pdf> (non-local but decent comparative cost data)

Cut flowers: Penn State and other sources: <http://extension.psu.edu/business/ag-alternatives/horticulture/cut-flower-production#section-15>

**Notes:**

- |   |  |   |
|---|--|---|
| <p>1. The higher end of the annual cost cycle comes in the year of harvest and incorporates harvesting costs.</p> <p>2. Cumulative costs up to full production.</p> <p>3. Nursery crops harvested typically 1 to 4 years after initial propagation.</p> <p>4. Older plants are generally worth more per plant (assuming they aren't too old) but have more money and time invested in their culture up to time of sale. The number of container or bare root plants grown per acre decreases as the plant size gets bigger.</p> | <p>5. One crop cycle with the possibility of several crops per summer on the same ground</p> <p>6. Good quality cost-return information on field grown flowers very difficult to come by. Marketing is very complex.</p> <p>7. Covers costs of planting and other miscellaneous start-up costs. Nonirrigated.</p> <p>8. Covers cost of bred cow (initially)</p> <p>9. Covers pasture maintenance expenses, purchased quality winter feed for 150 days, and veterinary and miscellaneous costs</p> <p>10. Based on one cow-calf pair per 2 acres of good pasture, an 85 percent herd-calving rate, calf</p> | <p>weight by October equal to 525 pounds, and the current high feeder auction prices of about \$200 to \$240/cwt. 1 cow = 0.85 calf x 525#s = 446#s @ \$2.20/# = \$982 per 2 acres.</p> <p>11. Covers cost of ewes (initially)</p> <p>12. Covers pasture maintenance expenses, purchased quality winter feed for 150 days, and veterinary and miscellaneous costs.</p> <p>13. Based on 6 ewes per 2 acres of good pasture, a 130 percent lambing rate, lambs weigh 90 pounds by October and the current medium high auction prices of \$150/cwt for feeders in this range. 6 ewes x 1.30 = 7.8 lambs @ 90#s = 702#s @ \$1.50/# = \$1,053 per 2 acres.</p> |
|---|--|---|

you may end up in the red. A new business is more fragile than an established one, and such a loss can be devastating.

The profitability of any farming enterprise, large or small, is difficult to predict. You also must identify what you mean by profitability. Does it mean just staying in the black for a specific crop? Does it mean providing a small supplemental income? Does it mean providing a full family income? Small farms can provide all of the above, given good resources and skills.

Growing a diversity of crops can spread the risk of changes in the growing environment or market price volatility in a given year. Yet it can also be risky to grow too many crops, particularly if they require very different skills and equipment.

## B. Marketing

Marketing is crucial to small farm success. Before you decide what to grow, spend some time assessing customer demand. Who will buy what you sell, and how much might they pay?

In general, small farmers focus their marketing efforts on selling directly to consumers in order to capture the full retail price for their products. Small farms are almost always at a disadvantage competing against large farms in most wholesale markets. Large farms are able to produce greater volumes of product over a longer time period at a lower cost; they may also have more on-farm infrastructure to support the longer shelf life and other product qualities wholesale buyers often demand. For these reasons, most successful small farmers choose to market most or all of their product directly to consumers via one or more of the following methods:

- Farm stands
- Farmers markets
- Community-supported agriculture (CSA)
- Web sales
- U-Pick
- Other direct-marketing techniques

Specialty wholesale channels that can work well for small farms include:

- Restaurants

- Some schools, hospitals, and other institutional buyers
- Small and mid-scale, independent retailers focused on organic and sustainable food, especially retail food cooperatives.

Different market channels have different requirements and challenges. For example, each farmers market has its own rules, and selling at market requires a full day off the farm, often on the weekend.

Before choosing where you will market your products, do some market research. At its most basic, market research means learning about your potential customer base and your competition for those customers. Consider asking the following questions:

- Who is your target audience?
- Who are the other small farms in your area? What do they sell and where, and how much do they charge?
- What farms are growing and selling the crops you plan to grow?
- What niches—specific products, gaps in availability, marketing methods—are not being filled in your area?
- How is your product or story different from the competition?

You can answer these questions by visiting local farmers markets, farm stands, and retail markets.

A small farm with a mix of high-quality products and a good plan for getting those products into the hands of consumers can be very successful. Oregon is home to many small farms that profitably produce nursery stock, culinary and medicinal herbs, specialty livestock, tree fruits and berries, vegetables, and numerous other crops. These farms often make and sell value-added products, such as fruit jams and pickles. Agritourism enterprises are also popular for small farms and include farm stays or farm-based,

Most commercial enterprises will require some level of license or permit or both. See *Keeping It Legal* (<http://smallfarms.oregonstate.edu/sites/default/files/small-farms-tech-report/trrefgorgrowandsell.pdf>) for information and links to pertinent agencies.

bed-and-breakfast operations, farm-to-table dinners, pumpkin patches, farm stands, and U-pick.

## V. Some other factors to consider when selecting an enterprise

**Farm community.** An active farm community promotes group learning, innovation, and cooperation. Many farm communities interact and stay connected through online communities with email lists and social media. For example, in Oregon there are several women's farming networks, facilitated by Oregon State University, that use email and Facebook to ask questions, source equipment, sell their products, and coordinate potlucks and skill-building activities (more at <http://smallfarms.oregonstate.edu/node/175731>). Quality suppliers of equipment, services, and information are more available where there is a "critical mass" of farmers. Nevertheless, isolated farmers can find and build community through commodity organizations and take other steps to improve their technical and marketing skills.

**Isolation.** If you are geographically isolated, you must carry larger parts and supply inventories, and, most significantly, you probably cannot contract as easily for custom farm work. Thus, you must have the ability and equipment to do all of the work yourself. This requires a higher upfront investment in capital, time, and skills. In addition, it may be more difficult to attract buyers for the crop if you rely on them coming to you.

**Farm accessibility.** Your farm's location can have a large bearing on your marketing options. Does it have good road access? It must be appealing to the public if you are planning direct sales. If the crop you grow requires a semi-truck for transportation, is your farm able to handle it?

**Access to labor.** Many horticultural crops are highly perishable and must be harvested and marketed in a timely fashion. Access to reliable and productive labor can mean the difference between success and failure. Currently, access to labor is becoming increasingly challenging throughout agriculture. Will you be able to find labor at the necessary time to harvest crops? Are you comfortable managing labor? Are you willing and

able to supervise and do the additional paperwork involved with having employees? Can you pay for labor before you are paid for your crop?

## VI. Summary

Understanding your goals, physical resources, and personal skills and resources, and doing your homework on crop and marketing options, are essential to making good decisions about what to do with your small farm.

Small farms can be significant businesses, marked by innovation and creativity. Many large enterprises started from very modest beginnings. As with any business, there are significant risks associated with a commercial farm. Successful enterprises are exceedingly well managed and focus on one or more profitable marketing niches.

Small farm operators develop and sustain both economic vitality and personal satisfaction by:

- Having a passion for what they do
- Producing crops for well-paying markets
- Paying close attention to cash flow and overall financial performance
- Marketing aggressively and creatively
- Having an appetite for learning
- Understanding that there is a learning curve to new enterprises and profitability takes time
- Investing in good soils and irrigation water
- Being strategic about equipment purchases and able to do preventive maintenance
- Diversifying income streams, including off-farm income, for financial sustainability
- Matching work to the family's time, desires, and abilities

To learn more about what you can do with your small farm, including educational programs offered by the OSU Small Farms Program, visit <http://smallfarms.oregonstate.edu/beginning-farmers/whatcanidosmallfarm>.



Two acres will produce a year’s supply of vegetables, ample fruits and berries, some meat, and possible opportunities for small cash sales. Another 2 acres of well-managed woodlot can heat a well-constructed house indefinitely.

Photo: Dana Martin, © Oregon State University

## Appendix—Special Conditions in Oregon

### Agricultural deferral

The Oregon legislature has crafted a set of laws designed to keep natural resource lands in production. The laws provide a tax deferral (known as “specially assessed valuations”) when certain conditions are met. Farm properties are subject to higher property taxes if they are not kept in farm use. The agricultural property tax deferral lowers the property tax of farms by basing the assessed value on what the property is worth as a “bona fide farm” rather than on investment or other nonfarm considerations. The difference in property taxes can be substantial depending on the location, zoning, and other factors.

If your land is zoned as Exclusive Farm Use (EFU) you only have to show that it is being farmed “for the primary purpose of obtaining a profit in money” (ORS 308A.056) to maintain an agricultural deferral. There is not an income test. Some counties require an application for the farm assessment in EFU zones that states that the land is being farmed. Others do not. Check with your county assessor.

Many small farms are located in areas that are not zoned exclusively for farming, typically “rural residential” land. In order to receive and maintain the deferral, these “non-EFU” farms must meet certain income tests. For some property owners,

this requirement results in the agricultural deferral dilemma. People may end up spending \$2,000 or more in farm expenses to save only \$1,000 on their taxes.

These two Oregon Department of Revenue websites give detailed information on both the EFU and non-EFU programs:

- EFU: [http://www.oregon.gov/DOR/forms/FormsPubs/assessment-farmland-zone\\_303-644.pdf](http://www.oregon.gov/DOR/forms/FormsPubs/assessment-farmland-zone_303-644.pdf)
- Non-EFU: [http://www.oregon.gov/DOR/forms/FormsPubs/assessment-farmland-not-zone\\_303-645.pdf](http://www.oregon.gov/DOR/forms/FormsPubs/assessment-farmland-not-zone_303-645.pdf)

Both documents have one potentially confusing paragraph that explains how the assessors put an agricultural deferral value on agricultural land. This does not relate to a specific property but rather to a formula used to calculate specially assessed valuations for agricultural land in general. This is not something you, as the owner, need to be concerned with.

To qualify for the non-EFU agricultural property tax deferral, you must show a minimum annual farm gross income, which varies by acreage:

- 0–6.5 acres: \$650
- 6.51–29.99 acres: \$100 per acre
- 30 or more acres: \$3,000

You must demonstrate the minimum gross income 3 out of 5 years. The assessor can request a copy of the “Farm Schedule F” from your federal income tax filing or other records you have kept to evaluate your claim for deferral.

Here is a hypothetical situation with and without a farm deferral, based on a typical tax rate (check with your county assessor for your county’s specific rate):

	No deferral	With deferral
Value of house	\$125,000	\$125,000
Value of homesite	\$70,000	\$70,000
Value of 10 acres	\$100,000	\$5,000
Total	\$295,00	\$200,000

The difference is \$95,000 in assessed or taxable value. If the tax rate is \$18 per \$1,000 of assessed value, you would pay \$1,710 ( $\$18 \times 95$ ) in additional property tax if you don't qualify for the ag deferral. Note that the homesite, house, and most buildings are not affected by the ag deferral, with some exceptions in the EFU-zoned deferrals (again, consult your assessor).

This example demonstrates the importance of asking your assessor what the assessed value of your land would be with and without the deferral. Then you can do the above calculation on your own property and decide where you come out.

Keep in mind that if you do take the ag deferral and then convert all or part of your property from farm to non-farm uses, you most likely will be liable for back taxes on the difference between the ag deferral value and market value assessments for the previous 5 years, even if you just purchased the property.

This is important to consider before you buy property. Some counties "flag" that potential obligation on their property assessment records so that the potential for back taxes appears on the title

report received when property is purchased. Contact the assessor about any potential issues on the particular piece of property you are considering.

The EFU deferral (which does not have an income test) is not connected to the income test that a county might require before a dwelling can be built on agricultural land. In fact, in some cases, building on EFU land might disqualify you from an EFU zone deferral.

Timber land deferral has a similar impact on property taxes but doesn't require annual income proof after the stand is planted and "free to grow."

There might be tax deferral incentives to manage your property as wildlife habitat. Under the state's "Wildlife Habitat Conservation and Management Program," landowners can retain their agricultural assessment when they enter into a management agreement with the Oregon Department of Fish and Wildlife. This program is entirely voluntary for landowners, and not all counties participate. To qualify, the property must be zoned as agriculture or mixed farm and forest use and must be within a participating county. Contact your assessor for more information.

For more information and resources visit <http://smallfarms.oregonstate.edu/>.

Many OSU Extension Service publications may be viewed or downloaded from the Web. Visit the online catalog at <http://extension.oregonstate.edu/catalog/>.

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