



# How to Grow Your Own Food

Two Methods: [Planning](#) [Growing](#)

For all of human history, people have managed to feed themselves, either by [fishing](#), [hunting](#), [gathering](#) and/or subsistence farming. Now, with large-scale food production, gardening is often only a hobby. But growing one's own food could mean increased security, health and enjoyment. Since the details of growing your own food depend on your unique locale, here's a general overview to get you started.

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## Planning

**1 Determine what crops you can raise in your location.** Obvious factors include [climate](#), [soil](#), [rainfall](#), and available space. A fast and fun way to learn what grows well in your climate is to visit a nearby farm or garden.

Here are some details to ask seasoned growers about or investigate yourself:

- **Climate.** Some locales only have a brief growing season, such as Northern Europe and Africa. This means growing quick producing plant varieties that can be harvested and stored for the winter. Other areas have year-long warm weather, where fresh vegetables and grain can be harvested on demand.
- **Soil.** Depending on the type you have available, you may expect very high yields from a large area, or meager yields from small areas. The best plan to follow is to plant a food crop which flourishes in your conditions as a staple, and use surplus land to grow "luxury" foods that require more fertilization and effort.
- **Rainfall.** No plants thrive with minimal rainfall, so most food crops require substantial amounts of water from irrigation or rainfall. Consider the normal rainfall rate for your area, and the availability of irrigation when choosing crops. If you live in a dry area, consider [collecting rainwater](#).
- **Space.** If plenty of space is available, you may be able to grow plenty of food using conventional methods, but where space is limited, you may have to look at other techniques, including [hydroponics](#), container gardening, sharecropping, and [vertical gardening](#).

**2 Understand how a growing season plays out.** Growing food is more than just [planting seeds](#) and waiting for a harvest. Below, in the "Growing" section, is a typical sequence of steps in growing a single crop of one plant. You will need to prepare each different plant crop basically the same way, but when you have prepared the soil for planting, you can plant as many different crops as you like at one time.

**3 Become familiar with the different types of food crops.** We often think of the vegetables we see in the produce section of a market as the garden vegetables, and in a sense, this is true, but to truly grow your own food, you need to consider your whole diet. This is a general list of the types of food you will want to consider growing.

- **Vegetables.** This includes legumes, leaf vegetables, root vegetables, corn (a grain, looked at more closely later), and vining vegetables like squash, cucumbers, melons, and pumpkins. These provide many essential nutrients and vitamins, including:
  - **Proteins.** Legumes are a good source of proteins.
  - **Carbohydrates.** Potatoes and beets are an excellent source of complex carbohydrates, as well as minerals.
  - **Vitamins and minerals.** Leaf vegetables, like cabbage and lettuce, as well as vining vegetables like cucumbers and squash, are a good source of many essential vitamins and minerals.
- **Fruits.** Most people understand that fruits are a great source of vitamin C, but they also contribute many other vitamins and minerals to your diet, as well as offering a broader variety of taste to enjoy. Fruits also can often be preserved by drying or canning, so refrigeration is not required to store your surplus.
- **Grains.** Growing grains is not what most people envision when they think of growing their own food, but grains

are a staple in most diets. They are filled with carbohydrates and fiber, and can be stored easily for long periods of time. In many early civilizations, and in some countries today, grain is the primary foodstuff for the population. This category of food crops includes:

- **Corn.** Often eaten as a vegetable with meals, corn is also a versatile grain that can be stored. Proper varieties, grown to maturity can be harvested and stored as whole cobs, shelled (whole kernels removed from the cob), or ground into meal for use in making breads or mush dishes like grits. For those living in latitudes with long enough days, corn may be the easiest grain to grow for the home subsistence farmer. [Freezing corn](#) is the easiest way to preserve it for winter use.
- **Wheat.** Most people are familiar with wheat, from which we get most of our flour for baking everything from breads to cakes and pastries. Wheat stores well after harvest, but harvesting itself is more laborious than it is for corn, since the whole plant is usually cut down, sheafed (bound in piles), gathered and threshed (beaten to free the seeds), and ground into fine powder (flour).
- **Oats.** Another grain, oats for human consumption are processed more than wheat or corn, and the labor involved in harvest is equal to wheat. Still, it may be considered an option in some areas where it is easily grown.
- **Rice.** For wet areas, areas subject to flooding, or which can be flooded, rice is the obvious choice. Rice is commonly grown in shallowly submerged soil, and is harvested much as wheat is.
- Other grains include barley and rye, which are similar to wheat and oats.

**4** Select the crops and varieties that are suitable to your growing region. This is where the instructions in this article cannot suffice to give comprehensive and accurate information specific to you. Instead, we will look at basic growing requirements for different plants according to standard growing regions, as set forth by the USDA (United States Department of Agriculture) on their plant hardiness map<sup>[1]</sup> which you may be able to use by comparing climates in terms of latitude and elevation to your particular region.

- **Beans, peas, and other legumes.** These are planted after the threat of frost, and require 75 to 90 days to produce fruit, which can continue producing as long as the plants are cared for until autumn frost.
- **Gourds.** This group of plants includes squash, melons, and pumpkins, and is planted after the last expected frost, and takes between 45 days (cucumbers) to 130 days for pumpkins, to produce harvest-able fruit.
- **Tomatoes.** This fruit (usually grouped with vegetables) can be planted in containers if kept warm, and transplanted into soil after the threat of frost, and will produce season-long as well.
- **Grains.** There is a great difference in growing seasons with grains, as well as summer and winter varieties of many of these. Generally speaking, summer grains, such as corn and summer wheat, are planted near the end of winter when freezing temperatures are not expected to continue for more than a few weeks, and they take about 110 days to mature, then another 30-60 days to dry sufficiently to harvest for storing as seed.
- **Orchard fruits.** Apples, pears, plums, and peaches are regarded as orchard fruits in most places, and do not require annual planting. The trees that bear these fruits require pruning and maintenance and usually take 2-3 years before producing their first, modest crop. When the trees begin producing fruit, the yield should increase yearly, and after they become mature and established, a single tree can produce bushels of fruit each year.

**5** **Develop a "farm plan" on the land you intend to use for your food production.** You will need to address specific issues in your planning, including wildlife encroachment, which may require [fences](#) or other permanent measures, [sun exposures](#), since some plants require more sunlight to successfully produce than others, and topography, since tilling very steep ground is fraught with problems.

- List all of the possible crops you will attempt to cultivate on your land. You should try to have as diverse a selection as possible to meet nutrition requirements mentioned earlier. You may be able to estimate a total yield per crop item by researching the growing success of others in your area, or by using information from the source you purchase your seed from. Using the list, and the planting plan you began earlier, you will need to calculate the amount of seed you will need. If you have lots of room, plant an excess to allow for poor performance until you have a firm grasp of what you are doing.
- Plan to use your land as effectively as possible if you are limited in space. Except in very cold regions, you may expect to be able to grow and harvest summer, fall, winter, and spring crops. This will allow you to enjoy some fresh produce year around. Beets, carrots, cauliflower, snow peas, cabbage, onions, turnips, collards, mustard greens, and many other vegetables actually prefer growing in cold weather if the ground does not freeze. Winter crops are also much less subject to insect problems. If you are very tight on space, consider your

alternatives (see Tips).

**6 Plan on your storage method.** If you are going to grow grains, you will need barns which will keep your stored harvest dry and safe from insects and vermin. It is likely that if you intend to produce all of the food you consume for yourself, you will find that a combination of storage and preservation methods will be useful. The above steps mention several of these methods, but as a recap, the usual methods for storing foods are:

- **Drying (or dehydration).** This is a useful method for storing fruits and some vegetables. It can be done without high-tech gadgets in most fairly dry, warm climates.
- **Canning.** This requires containers (which are reusable with the exception of lids, which may deteriorate over time) but does require proper preparation, cooking equipment, and skill. Pickling is considered in this article as a "canning" process, although it does not have to be so.
- **Freezing.** This, again, requires some cooking preparation, as well as a freezer and proper containers.
- **Bedding.** Not previously mentioned, this is a method for storing root crops such as potatoes, rutabagas, beets, and other root crops. It is accomplished by layering the product in a dry, cool, location in a straw bed.
- **In Ground Storage:** Many root crops and cole crops (like turnip and cabbage) can be overwintered in the garden. In most cases it is important to prevent the ground from freezing. Milder winter climates may only need a frost blanket. But colder climates may need mulch of up to a foot and a plastic covering. This type of storage is an effective way to save space and keep your produce fresh.

**7 Determine the benefits of this activity compared to the cost.** You will be investing a considerable amount of money in start-up costs if you do not have any materials and equipment available at the beginning. You will also have a lot of labor invested, which may translate into additional expense if you forgo a regular job to pursue this effort. Before investing a great deal of time and money, research your local growing conditions, available crop selections and your ability to manage this labor-intensive effort. The benefits will include having food that you can enjoy without the worry of herbicides, pesticides, and other contaminants, except those used at your discretion.

**8 Begin your project in stages.** If you have abundant land and sufficient equipment, you can start on a fairly large scale, but unless you have sufficient knowledge and experience, you will be gambling that the plants you select are suitable for your soil and climate. Talking to people in your area will often provide you with the best source of specific information on selecting your crops and planting times, but if this is not an option, plant "trial" plantings of new crops the first year to see how well they produce. Begin on a smaller scale, perhaps trying to grow a set percentage of your food requirements to give you an idea of the total yield you can expect, and work your way up to a self-sufficient level.

Method  
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## Growing

**1 Break the ground.** For cultivated land, this is simply the process of loosening the soil, and "turning under", or covering, the plants or plant residue from a previous crop. It may also be referred to as "tilling", and is done with a plow or tiller pulled by a draft animal or tractor, or on a small scale, with a self-propelled machine called a "rototiller". On a small plot of land and due to financial constraints, you may have to revert to the use of pick, shovel and hoe. This can be accomplished collectively. You should clear away any large stones, roots and limbs, heavy accumulation of vegetation, and other debris before tilling.

**2 Lay off rows.** With modern farm equipment, this process depends on the type of crop being planted, and "no till" planting actually skips this and the previous step. Here, we are considering the general method that would be used by someone who does not have this type of equipment and expertise. Mark out the area you intend to plant, and with a hoe or plow, create a slightly raised bed in the loose soil in a line across the length of the plot. Next, make your furrow (a shallow groove cut in the soil) with your chosen implement.

**3 Place your seeds in the furrow at the depth required for the particular crop you are planting.** This may vary according to your choice of plants. As a rule, succulent plants like legumes (beans and peas) and melons, squash, cucumbers are planted between 3/4 and 1 inch (2 - 2.5 cm) deep, where corn and potatoes may be planted 2 1/2 to 3 1/2 inches (6.3 - 9 cm) deep. After placing the seed in the furrow, cover them and tamp (gently pack down) the soil lightly so the seed bed (the covered furrow) does not dry out as quickly. Continue this process until you have the number of rows you planned on planting.

- Alternatively, you can "start" seeds indoors (such as in a greenhouse) and transplant them later.

**4 Cultivate your crops when the ground becomes packed by rainfall, or weeds become a problem.** Because you are planting this crop in rows, you will be able to walk the center area between rows (the middles) to accomplish this, if you are doing this by hand. You will want to keep the soil around the roots loosened without damaging the roots themselves. You may [apply mulch](#) to reduce, if not eliminate "weed"/unwanted growth by undesirable plants.

**5 Watch for insects and animals which may damage your plants.** If you see leaves which have been eaten, you will have to determine what is causing the damage. Many animals find tender young plants in a garden more appetizing than native growth, so you will have to protect the plants from these, but insects are a much more prevalent problem with growing food. You may find you are able to keep insect damage to a minimum by simply removing and killing them as you find them, but for serious problems, you may have to resort to chemical or biological control ( use of surrounding bug repellent plants ).

**6 Harvest.** You will have to educate yourself to some degree on when to harvest your crop. Many common garden vegetables are harvested as they become ripe, and continue to produce throughout the growing season with proper care. Grains, on the other hand, are most often harvested when they are fully ripened and dry on the plant. Harvesting is a labor intensive operation, and as you become experienced in growing, you will find that you need to reduce the production of some plants so that harvesting can be managed.

**7 Preserve.** For common vegetables, you have several choices for storing them through the non-growing season. Carrots, turnips and other root vegetables can be stored well into the winter months in the refrigerator or a root cellar. [Drying](#) produce is one option for long term preservation of meats, fruits, and vegetables, and for seed type crops like legumes, this will give excellent results. For succulents and [fruits](#), you may want to consider canning<sup>[2][3]</sup> or freezing your harvest. A vacuum sealer will give better results in freezing vegetables for long-term use.

## Community Q&A

### How should I cultivate vining vegetables?



Vining vegetables can be cultivated with a trellis, which is an interconnecting structure of wood with holes all over so the vine can wrap around it. Single vining vegetables can also be staked with a pole so that the vine grows around the pole.

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### What does "vining" mean?



"Growing as a vine with climbing or trailing woody stems." Plants that do this usually have sticks or wood planks placed into the ground next to them so the vines from the plant can grow around the sticks for support.

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## Tips

- Talk with neighbors about co-oping. It is easier to manage a smaller number of different crops, and you may be able to grow enough of some of your selection of food for two families, and another family would grow enough of other crops that you can exchange them.
- Even families who don't eat much meat often decide to raise a few animals such as [chickens](#) in order to have eggs. Chickens can be fed mostly on the waste from a family garden, they will eat vegetable peels, stale bread, and many other things you might otherwise throw out or compost. When chickens stop laying, it's time to plan a chicken dinner.
- Build a greenhouse, which will allow you to grow food all year long, even in *cold climates*.
- Look at outside sources of food to supplement your farming effort. Fishing, gathering wild berries and nuts, looking for edible plants growing wild in your region, even trapping and hunting may be possibilities for increasing the scope of your diet.
- Don't give up growing your own vegetables in the winter! Consider growing sprouts in your kitchen. If you grow a variety of sprouts, such as radish, broccoli, alfalfa and clover, you will have a variety of tastes and types of vegetables to add fresh

green to your diet to supplement your frozen and canned summer vegetables.

- Look at alternative methods for growing food if your space is very limited and your desire (or need) is sufficient to justify it. There are a number of high production, compact growing methods. Here are some with a brief description and links to sources with more detailed information:
  - Hydroponic gardening.<sup>[4][5]</sup> This is a method of growing in a liquid medium, also known as <sup>[6]</sup> "soil-less agriculture".
  - Vertical gardening.<sup>[7]</sup> This method is for "vining" crops which usually require a lot of space to spread out, yielding lower units per square foot. By erecting trellises, fencing, or other support structures, you may multiply your yield per square foot, as the vines will grow upward, rather than outward.
  - Container growing. Some plants can be grown in almost anything (even an old toilet, although tacky). Growing plants in "window boxes" has been common for many years to give a pleasant effect in the otherwise sterile environment of a city apartment, but the same process can be used to grow smaller, less root dependent food crops, like peppers, squash, tomatoes, and others.
  - Pottage gardening. This allows for concentrated blocks of vegetables and rotations. Also, it can become a beautiful way to replace a front lawn.

## Warnings

- Growing your own food requires patience, persistence and a lot of bending and lifting and carrying. Be prepared to sweat. Wear socks under clogs or easy-to-clean footwear. Protect yourself from sun and insects (ticks & mosquitoes carry life-threatening diseases) by washing thoroughly and often.
- Take great care with mushrooms. Be sure you know which are safe to eat. If in any doubt, do not consume them at all.
- Home canning must be done properly to be safe, in order to avoid botulism and other diseases.
- Hedge your bets, plant multiple varieties, cooperate with other farmers and spread your risk. Growing your own food can be rewarding, but you are at the mercy of nature, in the form of pests and weather, either of which can destroy whole crops in a remarkably short time.
- Never use pesticides. They go into the food and can cause cancer in humans. Instead, keep the food in a greenhouse or another clean and pest-free place.
- Make sure you clean your growing tools (shovels and other tools) before each use in order to keep the food clean.

## Things You'll Need

- Suitable land for agricultural purposes.
- Storage methods, tools and space.
- Adequate sun and access to water
- Growing equipment.
- Seeds and fertilizer

## Sources and Citations

- <http://www.motherearthnews.com>
- <http://www.growingfoodguide.com>
- 1. <http://www.usna.usda.gov/Hardzone/ushzmap.html>

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