



## Gardening 101—Getting Started

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This is the first in a series of gardening fact sheets that are designed to help beginning gardeners get started. Gardening is not easy work, but it is rewarding. Some of the benefits you can get from growing your own food include:

- Satisfaction of self-sufficiency
- Better tasting food
- Depending on the situation it may be less expensive
- The act of gardening itself is good for your physical and mental health

In order to make your gardening experience more successful there are some things you need to know and do. This fact sheet will give you a basic understanding of the following components of a successful fruit and vegetable garden:

- Garden Location—space and light
- Growing Season, Soil and Water
- Tools
- Seeds vs. Plants

### Garden Locations

To grow a garden you need space and direct sunlight. You can grow container gardens on a patio, deck or small back yard.

### Space

Different plants require different spacing. If you want to grow tomatoes, most varieties require a minimum of 6 square feet (6 ft<sup>2</sup>). Several lettuce plants will fit into 1 square foot (1 ft<sup>2</sup>). For typical

space requirements on specific vegetables, see the Utah State University Extension fact sheets for those vegetables.

<http://extension.usu.edu/htm/publications/by=category/category=194>.

There are many ways to save space in the garden. Some plants, such as lettuce, chard, and bush beans, do well in wide rows rather than single rows. Wide-row gardening is when two or more rows of plants are planted between pathways, or the plants are planted in a mass planting rather than a single row. Wide rows save space because there are fewer paths.

The main thing to remember with wide rows is that you don't want them any wider than you can comfortably reach to the middle. Some vegetables such as corn, squash, cucumbers and potatoes do not do well in wide-row gardening.

Other space-saving techniques, such as trellising work well with certain plants, such as pole beans, tomatoes and cucumbers.

### Light

As a general rule, garden vegetables need a minimum of 7 hours of direct sunlight throughout the growing season. Vegetable gardens do not do well in the shade of a tree or along the north side of a fence or building. If you are not sure how much sun an area of the garden receives, it is a good idea to measure the hours of direct sunlight for that location in mid-April. If you get 7 hours of direct

sunlight at that point you know that you will have about 120 days with enough sunlight for your plants to do well.

## **Growing Season, Soil and Water**

### **Season**

There are two different issues of importance when thinking about the growing season.

- Growing season length has to do with the number of days suitable for growing a particular vegetable. It is determined by counting the days between the last frost in the spring and the first frost in the fall. Climate information can be obtained from your local County Extension Agent, or you may find helpful information on the Utah Climate Center website at <http://climate.usurf.usu.edu/>.
- Cool season vs. warm season. Certain vegetables perform better in cooler temperatures, while others perform better in warmer temperatures.

The season length will determine, to a large extent, the crops you can grow. If your growing season is, on average, 90 days long, then it will be very difficult to grow a crop that requires 120 frost-free days. It is important to note that while there may be an average growing season for your county, there are many microclimates in a county that may lengthen or shorten your personal growing season. Also, any particular year may be longer or shorter than the average growing season. In addition, there are ways to protect plants in the spring and fall against cool temperatures or even light frosts.

Certain crops prefer cooler temperatures, while others prefer warmer temperatures. This will affect when you can plant your plants or seeds.

As a general rule, leafy crops such as lettuce, spinach, chard, and cabbage are considered to be cool weather crops and are planted in the early spring and harvested before the heat of summer. They can tolerate some frost as long as it doesn't freeze too hard. Peas and radishes also do better with cool spring or fall temperatures.

Other crops, such as tomatoes, beans, squash and melons are called warm season crops and can suffer

damage even at temperatures above freezing. These types of plants do best when there is little risk of temperatures dropping below 45°F.

### **Soil**

A good understanding of soils is very important if the garden is to be successful. The best soils are well drained, deep, and fertile. Soil must provide the nutrients needed by the vegetables. If your soil is low in certain nutrients your plants will exhibit deficiency symptoms. If nutrient levels are too high, plants may not produce well or be damaged by the toxic effect of the nutrients.

Some soils in Utah contain too much of certain elements, such as sodium, or have other properties that make it difficult for vegetables to thrive. For example, soils that are high in salts hold onto water tightly, making it difficult for seeds to germinate and for plants to get the water they need.

A simple soil test will provide a good idea of soil quality. Your local Extension Office can help you collect and submit a soil sample for analysis. If soil is too shallow or of poor quality it may be best to grow your vegetables in pots or raised beds. It is worth the minor expense of a soil test every couple of years so you know how to treat your soil.

### **Water**

Proper watering is absolutely essential for vegetables to survive and thrive. Water needs vary depending upon the time of year and the stage of plant growth. Too much water can inhibit germination of the seed or drown the roots of young plants. Too little water stops plants from growing, may cause flowers to abort and interrupts important plant functions. It may even cause plants to wilt and die.

Water quality is also critical. Water that is provided by an irrigation company is generally adequate for most vegetable crops. Well water should be tested to determine if it is suitable for vegetables. Culinary water is usually high quality, but is more expensive than untreated water from a well or irrigation company.

New gardeners need to make sure they have access to plenty of good quality water. This will increase the likelihood of growing a successful garden.

## Tools

A few basic tools are all that is needed for a successful garden. A small garden plot can easily be turned by a garden fork. A hoe makes weeding less tiresome on the back. A small hand spade can make planting go smoothly. A hose with a soaker or sprinkler attachment will make watering easier. With these simple tools you can get your garden started. As you gain experience and increase your garden size you may wish to invest in larger, or gasoline-powered equipment to help make the work go faster and easier.

## Seeds vs. Plants

At some point you will need to purchase seeds or plants for your garden. Most vegetable crops do well when seeded directly into the soil. Others require a long growing season and do better if a started plant (transplant) is used rather than seeds.

Transplants are often available at businesses that provide vegetable seeds.

## References

- Fritz, F.A. 2010. Planting the Vegetable Garden. <http://w.w.w.extension.umn.edu/distribution/horticulture/dg1422.html>
- Gardening Know How. Learn the Vegetable Gardening Basics. <http://www.gardeningknowhow.com/vegetable/vegetable-gardening-advice.htm>
- Phipps, N. Vegetable Gardening for Beginners. <http://www.gardeningknowhow.com/vegetable/vegetable-gardening-for-beginners.htm>

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