

Tomato Growing I

The soaring cost of many basic food items, coupled with a general downturn in the economy, is enough to make the idea of growing your own food look appealing. For some, it can become a real necessity. For others, homegrown vegetables simply taste better.

At the same time, there are simple lessons to be learned before you can become a successful gardener. They are not complicated, for the most part and can be mastered with a little care and attention. These lessons are the focus of this series.

Success in growing tomatoes can be attributed to a few proven techniques. Start by choosing a variety that has been a proven performer. They are often found in garden centers or farm stands or by talking with experienced gardeners. In recent years there has been a lot of interest in heirloom varieties. In choosing heirloom varieties you should be aware these varieties are not likely to be resistant to *verticillium wilt* or *fusarium wilt*, common problems in growing tomatoes.

The VF designation, something to look for when purchasing tomato plants, means the tomato variety is resistance to *verticillium wilt* and/or *fusarium wilt*. These two problems often originate from your garden soil and can destroy a crop before you harvest a single tomato. In the end, it is best to experiment with several varieties in order to find the ideal tomato for your taste buds and growing conditions.

Use the best soil available to grow your tomato crop. In poor, sandy soils, adding peatmoss or other forms of organic matter in the top 6 to 9 inches of soil is an important step.

Lime and fertilizer should be added according to soil test recommendations. If no soil test has been taken, 3/4 cup of lime should be applied to each plant, along with fertilizer. The rate of fertilizer depends entirely on the type of fertilizer being used. Follow the recommendation on the fertilizer container. Lime will help reduce nutrient imbalances by allowing the nutrients that are present in the soil to be taken up by the plants. This is particularly true for calcium and can help control blossom end rot that occurs so frequently on tomatoes.

Tomato plants should be spaced 1 1/2 to 2 ft apart in the row with 3 to 4 ft between rows. The planting hole should be deep enough to allow the entire root ball to be covered with one inch of soil. If the transplant is tall and leggy at time of planting, the trench planting method should be used. To trench plant a tomato plant, dig a horizontal trench rather than a hole for each plant. Next, remove all of the leaves from the plant except the top leaf cluster (4 to 5 leaves). Then lay the plant on its side in the trench and cover the root system and bare stem up to the top leaf cluster with 2 to 3 inches of soil. Firm the soil over the plant. Be sure not to press the soil too firmly around the stem where it comes out of the soil, as the stem may break.

Tomato plants should be staked or caged shortly after planting. A common 6-ft tomato stake may be purchased from many garden centers. The stake should be driven in the soil about one ft deep, 3 to 5 inches from the plant. Be sure to avoid driving the stake on the root side of plants that have been trench planted. Trench planted tomatoes should be staked immediately after planting while the location of the buried stem is fresh in your mind. Use a strip of cloth, nylon stocking, or heavy string to tie the plant to the stake.

Sidedress tomato plants with 2 to 3 Tbsp. per plant of a complete fertilizer such as 8-8-8 or 10-10-10 after the plants have started to set fruit and 4 to 6 weeks thereafter throughout the growing season. Keep the fertilizer 4 to 6 inches from the plant's stem to avoid fertilizer burn. Many successful gardeners use liquid/water soluble fertilizers, but whether you use granular or water soluble fertilizer, do not over do it. Too much fertilizer will result in lots of leaves and healthy looking plants, but fewer tomatoes.

For soil testing, the University of Massachusetts Soil and Plant Tissue Testing Laboratory is located on the Amherst campus of the University of Massachusetts. Testing services are available to all and information on submitting a soil sample for testing is available at <http://www.umass.edu/soiltest/>

It is important to make sure the tomatoes receive sufficient water during the season. The soil should be soaked 6 to 8 inches deep at 7-day intervals. Mulches such as straw or composted leaves around the tomato plants will prove to be a real asset in conserving soil moisture during July and August.

Finally, have a prepared plan for dealing with the various insect and disease problems. Frequent observation of tomato plants for pest damage is the only way to stay ahead of nature.

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