

Saco Community Garden Tomato Primer

Information mostly from Bonnieplants.com/library, Mel Bartholomew's *Square Foot Gardening*, and Barbara Damrosch's *The Garden Primer*.

1. What variety should I plant?

Plant what you like to eat and store, and also plant what will do best in our environment. Here are some general choices:

a. *Determinate and Indeterminate*

When selecting tomato varieties, you must choose between plants with different types of growth habits called determinate or indeterminate. *Determinate, or bush tomatoes*, reach a certain plant height and then stop growing. The majority of their fruit matures within a month or two and appears at the ends of the branches. These are popular with gardeners who like most of their tomatoes at once. It might even be that you'd prefer to harvest early and leave late summer for a long vacation. Most determinate varieties need a cage or staking. *Indeterminate* varieties continue to grow and produce tomatoes all along the stems throughout the growing season. Indeterminate plants need extra-tall supports of at least 5 feet. Larger tomatoes generally mature later than smaller tomatoes. If you are *buying seedlings* instead of starting them yourself, please **DO NOT** buy from the big box stores, but only from reputable local garden centers. The local garden centers will carry varieties suited to our area, and the big box stores may bring pests and diseases from away into our garden.

b. *Symbols for Disease Resistance*

Tomato names are often followed by capital letters that stand for resistance to certain diseases. In the SCG we have a history of late blight, so choose your variety carefully!

V – Verticillium Wilt

F – Fusarium Wilt (two F's indicate resistance to both races 1 and 2)

N – Nematodes

A – Alternaria Stem Canker

T – Tobacco Mosaic Virus

St – Stemphylium (gray leaf spot)

SWV – Tomato Spotted Wilt Virus

LB – Late Blight

c. *Other Tomato Terms*

Heirloom tomato - Any tomato that is at least fifty years old and is not a hybrid.

Hybrid tomato - A tomato bred by crossing varieties. Hybrids offer better disease resistance, higher yield, and other improved traits.

Early variety - A tomato that matures in 50 to 60 days

Cherry tomato - Small cherry-sized tomatoes, usually indeterminate

Plum tomato - Larger than cherry but smaller than slicing tomatoes. Good for paste or drying because they have fewer seed chambers and seeds

Beefsteak tomato - Large slicing tomatoes, usually mature later in the season

2. How Should I Plant and Care for My Tomatoes?

Tomatoes are tropical plants and want to be warm. They don't like Maine but we can fool them.

a. *Start seeds indoors* in warm sterile seed starting mix about 6 weeks before last frost, and keep them warm throughout their indoor time. After they show at least 2 true leaves, fertilize with half strength organic fertilizer every two weeks. Do not let the mix become totally dry. *Harden* your tomatoes off several days before planting in WARM soil. Do not rush the outdoor planting. Planting out too early in cold soil will slow or even stunt your plants.

b. When it is time to *set your tomato plants outside*, plant 2/3 of the stem below the soil (really!). This deep planting will give you a more robust root system that will feed and support your plant better. Make sure you space your plants at least 1 foot apart for good air circulation and less competition for nutrients. Decide on a support plan before you set out your plants, and then add that support directly after planting. As far as nutrients go, tomatoes take up nutrients best when the soil pH ranges from 6.2 to 6.8, and they

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need a constant supply of major and minor plant nutrients. To provide the major nutrients, mix a balanced organic fertilizer into the soil as you prepare planting holes, following the rates given on the organic fertilizer package. At the same time, mix in 3 to 4 inches of compost. The compost will provide minor nutrients and help hold moisture and fertilizer in the soil.

c. *Water deeply* and regularly—at least 1 inch every week. Uneven watering may lead to cracked fruit or tomato blossom end rot. Put a cutworm collar around the stem and bury this collar at least an inch into the soil. You can make a watering saucer around your tomato, and when it is established, mulch to keep it evenly moist and weed-free. For on-going *support*, tie up your tomato to a stake with an X of twine every few inches, or weave it through a cage for support. Some folks trim off the lowest leaves and *remove suckers* (extra leaf sprouts in the fork of established leaf/stem joints), and some do not. Feed with a compost tea or organic *fertilizer* once in the middle of the growing season. Keep the weeds away so that your tomatoes don't compete for light, nutrients and water. As summer heats up, some tomatoes have trouble setting fruit. Be patient, and you will start seeing little green tomatoes again when nights begin cooling down. Meanwhile, *promptly harvest* ripe tomatoes to relieve stressed plants of their heavy burden.

3. Some but not all potential problems with tomatoes

If it gets *too cool* (below 55) or *too hot* (above 90), the flowers of most varieties will pause from setting fruit until the temperature is back where they like it. Humid weather creates ideal conditions for *fungus diseases* like *early blight*, which causes dark spots to first form on lower leaves. Water the soil, not the leaves, and space your plants for optimum air circulation. *Late blight* is a more devastating disease that kills plants quickly; the way to control it is to keep the garden clean of tomato and potato debris. If late blight is in the soil, it is viable for 6 years and you should plant different veggies in that infected soil. In mid-summer, big green caterpillars called tomato *hornworms* eat tomato foliage and sometimes damage fruits. One or two hornworms can strip a plant leafless. We get tomato hornworms in the SCG—scout them out, pick them off by hand and drown them or crush them underfoot. If the hornworm has lots of white specks on it, don't kill it but instead throw it outside the garden. These white specks are the eggs or larvae of a wasp that kills the hornworms. *Early frost* can surprise us at the SCG. Cover your tomato plants with a sheet or garden fabric overnight to protect them from frosty nights, and remove the cover when it warms up.

4. Harvest and Storage

Tomatoes ripen to different colors, depending on the variety. As tomatoes begin to ripen, their color changes from vibrant medium-green to a lighter shade, with faint pink or yellow blushing and then to its mature ripe color. The exact signs of ripeness vary with variety, but in general, perfectly ripe tomatoes show deep color yet still feel firm when gently squeezed. Snip the stem or carefully twist off the stem to prevent bruising the fruit. Store picked tomatoes at room temperature indoors. Never refrigerate fresh tomatoes, because temperatures below 55° cause the precious flavor compounds to break down. Bumper crops can be frozen, canned, or dried for future use. Check your plants every 2 days and harvest regularly in order not to waste all your money and hard work!