

Tomatoes are an exciting part of the vegetable garden. This pamphlet provides tips for successfully growing tomatoes, and a brief section on diseases and disorders.

Tomato terms



Determinate- Often early bearing, these types of tomatoes produce a large initial flush of fruit, and then taper off. The best type for containers. Some examples of determinate types include Roma, Oregon Spring and Legend.

Indeterminate- This type continually grows until the cold weather sets in. They set more fruit over a longer period. They also benefit from staking or trellising. Some examples include Early Girl, Brandywine and Better Boy.

Planting & Culture



Tomatoes originated in the warm climate of Mexico. Keep this in mind when planting and growing these plants.

Timing- In May, fluctuating day/night temperatures influence seed planting time for tomatoes. Count back 6-8 weeks, start seeds indoors with 12 hours of light and bottom heat. When the seedlings show their first true leaves, pot them into 4" containers. Ideal starts will have four to six true leaves. At this point (usually in May) harden off the plants in a sheltered area outdoors before planting. An easier route is simply purchase seedlings at the nursery. Protect tomatoes planted in May with hot caps or cloches. Night temperatures below 55 can delay flowering. Generally, by mid June temperatures are warm enough for

unprotected planting. Plant tomatoes through July and short season varieties into August.

Soil preparation- Work a ½" of manure into the soil. Use a ¼- ½ cup of complete fertilizer into each hole when planting.

Complete organic fertilizer

4 parts seed meal or fishmeal
1 part dolomite lime
1 part rock phosphate or bone meal
1 part kelp meal

Inorganic amendments such as pumice or gravel increases soil percolation and temperature.

Sun exposure- Full sun is necessary. Pick the hottest part of your garden for these plants. Areas that receive reflected heat from pavement or buildings are especially toasty.

Planting- Tomatoes root along the stem. Therefore, plant tomatoes horizontally up to their first true leaves. Plant determinate types on 2-3' centers and indeterminate types on 3-4' centers.

Water- Water has a major impact on the fruits. A consistent water supply is necessary. Depending on the retentiveness of your soil and the weather, water your plants deeply at least once a week. Drying out, or large fluctuations in soil moisture, can cause leaf curl and blossom end rot.

Feeding- There are many ways to fertilize tomatoes. Most programs recommend amending your soil before planting, and using a starter solution (such and kelp or B1)

upon transplanting. When growth slows side dress with a ¼ - ½ cup of complete fertilizer. A simpler method is to use a time-release fertilizer when planting. This will feed the plant the entire season.

Mulches- Mulching helps stabilize soil moisture and prevent soil borne fungal diseases. Compost and straw are two natural mulches commonly used. Black plastic will create a physical barrier between the plants and soil fungus and heat up the soil temperature. Red plastic mulch also offers these qualities, and reflects red light to help ripen the fruit.

Supports- Determinate tomatoes are often self-supporting, or simply need a single stake. Large growing indeterminate varieties benefit from a sturdier support system such as large circular or square metal cages. You can also use a single stake for indeterminate varieties by pruning plants to a single leader. The fruit may sunburn due to sun exposure. Tomato spirals do not require tying. The spirals work best with plants trained to a single leader. You can also build a trellis for your tomatoes using a variety of materials. With a trellis system, the vines need to be tied to the support structure.

Containers- Tomatoes are quite suited to container culture. Indeterminate varieties need a pot with a 5-gallon capacity. Determinate and patio types are fine with 2-3 gallon pots. Mix ¼ - ½ cup of complete fertilizer with the soil. Add more fertilizer when growth slows. Container grown plants will require more water, about three to four

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times a week. Compact determinate varieties, such as Better Bush and Patio, are very manageable in pots. Try one in a hanging basket for fun!

Recommendations



We have chosen some of our favorite varieties of tomatoes for different purposes to share with you.

Early- Oregon Spring

Saucing- Amish Paste, Early Cascade Italian Gold, San Marzano.

Drying- Principe Borghese

Cherry- Sungold, Matt's Wild Cherry, Yellow Pear.

Heirloom- Black Krim, Lemon Boy, Brandywine.

Low acid- Green zebra, Black Prince

Beefsteak- Better Boy Stripped German, Taxi.

Slicing- Early Girl, Fantastic

Diseases & Disorders



Several pests and diseases can afflict tomatoes. Here we have highlighted the most common ailments in the Portland area.

#1 **Blossom end rot-** Dark, soft spots appear at the end of ripe and unripe fruits. This is coupled with leaf curl. Blossom end rot is caused by a sudden change in soil moisture, inconsistent watering or a calcium deficiency. Watering is usually the culprit. Crushed eggshells or dolomite lime added to the hole when planting can help counteract the calcium deficiency. Calcium sprays are also available to help during the season.

Once the rot has established on a fruit it will not go away. The good news is that the rest of the fruit is perfectly edible.

#2 **Blight, Early & Late-** Due to our cool wet climate, blight is very common. Irregular brown spots develop on the leaves stem and sometimes fruits of the plants. Early blight coincides with cool spring and summer rains. Late blight occurs in muggy weather with cool nights. Both funguses are soil borne, and can be prevented with plastic mulches. At least, avoid overhead irrigation, and keep lower leaves and limbs off the ground. After diagnosis, use a copper based fungicide and a sticker to retard the fungus from spreading. Apply every 2-3 weeks. Avoid planting tomatoes and other solonaceous crops in areas where blight has occurred.

#3 **Fruit not setting or ripening-** Both of these situations are weather related. If night temperatures are below 55 or above 75, the blossoms will drop with its immature fruit. Ripening is greatly slowed by night temperatures below 55. This can be prevented by covering your plants with a portable cold frame to modify those chilly nights.

Sources

All About Tomatoes. Walter Doty & A. Cort Sinnes. Through Ortho Books.

Growing Vegetables West of the Cascades. Steve Solomon.

Written by Laura Altvater

Tomato Tips

Tips on planting & maintaining healthy Tomatoes

