Selecting the right variety of tomato for our area can be the difference between red and green tomatoes by the end of the summer. If you are starting your own transplants, buy from regional seed companies like Territorial and Ed Hume or check carefully the days to maturity. If you are buying transplants, Sky carries mostly Northwest-proven varieties, but we do offer some heirloom and longer-season varieties for those who want to try them. Check our tomato list and/or the plant tags for the expected days to maturity. There are slicer, paste, and cherry varieties that will produce in our cooler summers.

Once you have chosen your varieties, choose your location carefully. One of the most important factors in growing tomatoes is keeping the plant and soil warm. Choose a sunny location—preferably full sun all day—against a south-facing wall is ideal. Raised beds, large rocks or bricks around the base of the plant (releasing heat at night), or black plastic are ideas that will aid in the growth and development of the plants and fruit. Do not plan to set your tomato plants out without protection until early to mid-May; if you wish to plant earlier than that, the plants will need protection from Season Starters (formerly called Wall-o-Water), HotKaps, or some other form of cloche or greenhouse.

To prepare your soil, mix 1 cup of lime and some compost or composted manure with the soil in the bottom of your planting hole. Plant the tomato deeper than it grew in its container—it will sprout roots along the buried stem and you will have a sturdier plant. (This does NOT apply to grafted tomatoes; grafted plants must be planted with the graft line above the soil.) Water it in well. Using Superthrive or Fertilome Root Stimulator in the water can help prevent transplant shock.

Feed the plant two or three times with a balanced tomato or vegetable food until the plant reaches its full size. Stop fertilizing when it starts producing fruit. Do continue to water consistently and evenly; this helps to prevent fruit cracking.

Pruning is not required, but if you wish you can pinch out the suckers that grow between the main stem and the leaf joint. Towards the end of the season, you can remove the flowers and new fruit to speed ripening of the larger fruit.

Tomatoes have two distinct habits of growth. Most are either determinate or indeterminate—listed as Det or Indet on our tomato list.

Determinate tomatoes stay short and compact. They seldom need staking or caging. Staking may become necessary when the plant becomes heavy with fruit to prevent stem breakage or fruit laying on the ground. The vines will stay small to medium regardless of how much you feed and water them. The plant stops growing when the main stem flowers. They are good choices for canning, and their shorter stature make them popular for container or limited-space gardens.

Indeterminate tomatoes grow indefinitely until frost. Blossoms and fruit develop progressively as the vine grows, so tomatoes in all stages of development may be on the vine at once. Harvests, therefore, can last several month. These varieties require staking or caging. (All grafted tomatoes are indeterminate.)

A few varieties are semi-determinate; they will benefit from support, but not grow indefinitely.
TROUBLESHOOTING: PHYSIOLOGICAL DISORDERS

Plant stress can cause problems that resemble disease symptoms. In general, give your tomatoes plenty of sun, warmth, consistent moisture, and nutrients to avoid the following conditions.

**Blossom End Rot** is a leathery scar or rot on the blossom end of the tomato. It can be caused by uneven watering, insufficient calcium or too-acid soil. Lime in the soil initially will prevent either of the latter problems, or Foli-Cal can provide a corrective dose of calcium for a tomato that is already growing.

**Catfacing** is a puckering of the blossom end of the fruit, with lumps and deep cavities. It is caused by cool, cloudy weather at bloom time that makes the flower stick to the developing fruit, or transplanting after fruit has developed.

**Fruit cracks** are radial (circular, around the fruit) cracks caused by too much water or uneven watering when temperatures are high. These conditions promote extremely rapid fruit growth. Make sure you water evenly and consistently, particularly during droughts.

**Sunscald** is common on immature green fruit. It is tomato's version of sunburn, characterized by white or yellow patches that may blister and form a grayish white spot with a dry paperlike surface. Varieties with poor foliage cover are susceptible. Do not prune away foliage protecting the tomatoes; the leaves need to get the sun to ripen the tomatoes, not the fruit themselves.

TROUBLESHOOTING: DISEASES

Tomato varieties bred for resistance to diseases are designated on the tag with the letters “A” (Alternaria), “S” (Stemphylium solani), “V” (Verticillium wilt), “F” (Fusarium wilt), “N” (Nematodes), or “T” (Tobacco mosaic virus). A plant labeled “VFNT” is resistant to four diseases. Many diseases are soil borne; rotating where you plant your tomatoes and good sanitation in the fall (removing, not leaving or composting, any diseased material) can help prevent problems. THESE PROBLEMS CANNOT BE CURED, ONLY PREVENTED.

**Alternaria** (Early Blight) is caused by a fungus that can affect seedlings but usually is seen on older plants. Dark brown spots with dark concentric rings develop first on oldest leaves. Spotted leaves may die, resulting in substantial early defoliation. The fungus overwinters in residue from diseased plants where it can persist for one year. The fungus can also be seed-borne. The disease occurs under a wide range of conditions. It is promoted by heavy dews and rainfall and can severely affect plants of poor vigor.

**Fusarium wilt** is a soil borne fungus. It can cause losses when both temperature and humidity are rather high (80-90°F) for much of the summer. The oldest leaves droop, curve downward, and ultimately yellow and die; usually the entire plant eventually dies. The disease can affect plants in all stages of growth but is most evident when the fruit is ripening. Often one side of plant is affected before the other, with yellowing and wilting progressing up the stem until all the foliage is killed and the stem dies. There are two “races” of this fungus; a tomato variety may be resistant to either or both.

**Late blight** causes rapid browning or blackening of the entire plant, usually exactly as you’re planning to harvest. It is a fungus encouraged by cool nights and moisture. Keeping your plants dry and warm (protecting from rain, no overhead watering) can slow its spread. Sanitation can help; plant earliest-ripening varieties to get a good harvest before the disease strikes.
**Nematodes** are tiny parasitic eel worms that can cause severe damage to entire stands of plants. Poor stands, stunted plants, and some plants wilting and/or dying are possible symptoms. Look at the roots of injured plants. Nematodes can cause swollen, knotty galls or brown sheared-off areas. Interplanting marigolds is said to discourage nematodes.

**Stemphylium solani** (Gray Leaf Spot) is a fungus affecting the leaves. Numerous small dark brown spots appear on the oldest leaves first; the spots extend through the undersurface of the affected leaves. As the spots enlarge, they turn grayish brown, and the centers may crack and fall out. Affected leaves turn yellow, wither, and drop off. When plants are severely affected, all the lower leaves may be killed and few fruits produced. The fungus overwinters on debris and can persist in the soil for several years. This disease, favored by warm moist conditions, is more prevalent in the southern United States than in the north.

**Tobacco mosaic virus** is spread to tomato plants by smokers or by tobacco ashes, butts, etc. If you smoke or chew, be sure to wash your hands carefully before working with your tomatoes.

**Verticillium wilt** starts with older leaves yellowing and the shoot tips wilting slightly. Eventually the yellow leaves drop off and the crown of the plant is defoliated. Leaves higher up become dull looking and the leaflets tend to curl upward. All branches are uniformly affected and tend to be less upright than on healthy plants. The plants are usually not killed outright but are stunted with small fruits. Much of the fruit that does set is lost to sunscald because of the leaf loss.