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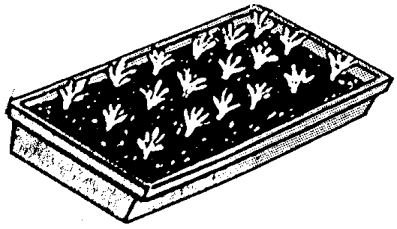
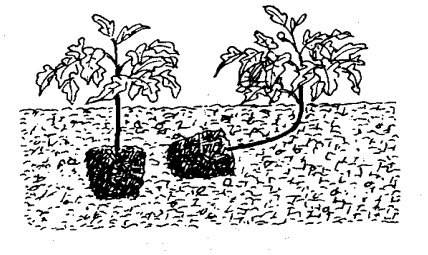
GROWING TOMATOES IN HOME GARDENS

Tomatoes are tender, warm weather plants that need a long frost-free growing season. The average growing season in the Inland Northwest is 120 days.

Varieties: Look for varieties that mature in 70-75 days or less. Be aware that seed catalogs give the number of days to maturity by counting from the time the plants are set out in the garden, not from seed germination. Check varieties for the initials **VFNT**. If all four initials are listed, the plants will be resistant to Verticillium wilt, Fusarium wilt, nematodes and tobacco mosaic.



Starting from seed: At least 6-8 weeks before transplanting into the garden, cover seeds lightly with a soil-less mix and keep it evenly moist. Seeds sprout best at 70-80°F and grow best thereafter at 60-70°F. Tomato starts can grow on a sunny windowsill. Heat tapes work best to control temperatures.



Planting outdoors: Transplant into the garden in late May after hardening off the plants by setting them outdoors for increasing amounts of time. Plant where tomatoes will receive direct sunlight most of the day. Plant seedlings deeply, burying as much as three-quarters of the stem. Plant 18" apart; if staking, plant 3 feet apart.

Transplant on a cloudy day if possible and water thoroughly. Put one tablespoon of tomato food (5-10-10) in the bottom of the hole and cover with soil. Don't allow plant roots to touch fertilizer. Tomatoes need ample water, but be careful not to overwater. Plants need 1 inch of water per week. Too much water can stimulate heavy leaf growth and cause blossoms to drop. A good way to keep the moisture level consistent is to mulch after ground has warmed thoroughly, usually the first of July.

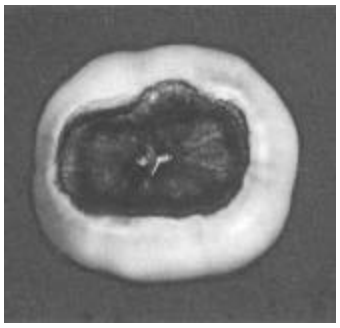
Culture problems: Tomatoes will not grow well in heavy clay soil because it lacks air. To change the composition of heavy soil, add organic material such as peat moss, compost, or manure. Work to a depth of six inches. Warning**:** Be extremely careful with manures. They may have been sprayed with weed killers like 2,4-D that will carry through the soil to the plants.

Fertilizers: Soils vary greatly all over the Inland Northwest, but one factor remains fairly constant regardless of location: young plants need phosphate and very little nitrogen.

Night temperatures: Must be between 55° to 75° for successful fruit set. If nights drop below 55°, blossoms drop off before they can be pollinated. Large beefsteak-type tomatoes demand a lot of pollen, so they are the hardest type to set fruit. Tomato-set hormones will help when nights are too cold.

Pruning: Be careful about pruning plants too severely, especially in August. If a plant is left unpruned, it can keep fruit from becoming sun-scalded.

Prevention of common tomato problems: Rotate crops, plant resistant varieties, encourage air circulation, keep plants vigorous. Avoid overhead watering or watering late in the day. Don't handle or work around plants when wet to prevent the spreading of diseases.



Blossom end rot: First appears on bottom of tomato, caused by uneven moisture supply that results in a lack of calcium in the plant. The problem may be very severe where the soil has a high salt content, is sandy, or has poor drainage. Staked or pruned plants are more likely to suffer. Apply a two-inch mulch under plants.

Cracking: Keep moisture supply as consistent as possible. Again, mulching helps.

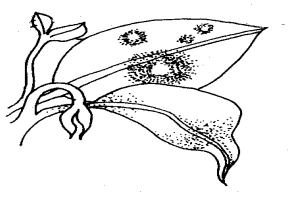
Catfacing: This is not a disease. It is caused by cool weather and abnormal development of the pistil of the tomato flower at blossom time.

Blossom drop: Caused by cool night temperatures in our area.

Curling of leaves: Very common. Too much pruning may promote curling. Pronounced rolling and purplish leaf veins could be curly top of tomato, or western yellow blight, a virus caused by leafhoppers in beets and spinach. Avoid planting near these vegetables.

Early blight: One of the most common and harmful diseases, it is caused by fungus and appears first as a simple brown spot surrounded by yellow that spreads outward. Lower leaves are affected first and later wither. To help keep in check, mulch to reduce splashing and use a good tomato-vegetable dust that contains a fungicide. Space plants for good air circulation to prevent humid conditions favoring blight.

Late blight: Irregularly-shaped, greasy, green-black spots are found at edge of leaves at first; gray mold sometimes is seen on bottom of leaves. To prevent blight, use an organic fungicide. Seriously-diseased plants should be destroyed and discarded. Remember to rotate your crops.



Leaf spot: A fungal disease in which leaves start showing small spots with light centers. They may turn yellow and drop off. Rotating crops helps keep this in check.

Bacterial wilt: Occurs suddenly, and often is not accompanied by yellowing of leaves; stem centers will turn brown. Wilts indicate something has "stopped up the plumbing" of the plant. Most often, lower leaves wilt first.

Fusarium wilt: Plants show wilt on only one side at first; brown ring goes all the way up the stem.

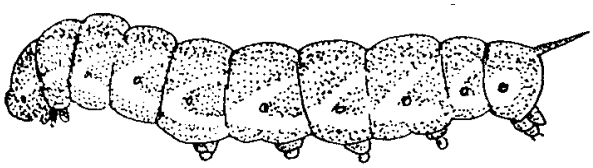
Verticillium wilt: Leaves show large yellow blotches before wilting; brown ring will be seen only in the lower twelve inches of stem.

Walnut wilt: Don't plant tomatoes near walnut trees or where walnut trees used to grow. The toxin can live in roots for a long time. Destroy wilt-infested plants as soon as you spot them.

Tobacco mosaic: A virus with symptoms of curling and stunted leaves. Don't let anyone smoke in the garden as they may infect the plants. If you do smoke, wash your hands with soap before handling plants.

Herbicide damage: 2,4-D herbicide drift occurs frequently. Symptoms include downward bending of leaves and of growing points. New leaves do not expand fully, twist at margins and are narrow. Plants exposed to small amounts of herbicide damage will outgrow injury. Water thoroughly and often.

Insects: The most common tomato pest is the Tomato Hornworm, which is the caterpillar stage of the Sphinx (or Hawk) Moth. They can be controlled by handpicking or by spraying the plants with Bacillus thuringiensis (Bt) when the pests are spotted on the plants. Bt is a product that contains bacteria that parasitize caterpillars but are harmless to humans. It is widely available at garden centers.



Tomato Hornworm