

Grow Your Own TOMATOES

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Tomatoes are the most popular vegetable in the home garden. They're a tasty fruit, and they supply vitamin C as well as many minerals needed for proper nutrition. They're eaten fresh from the garden and processed in several ways for later use.

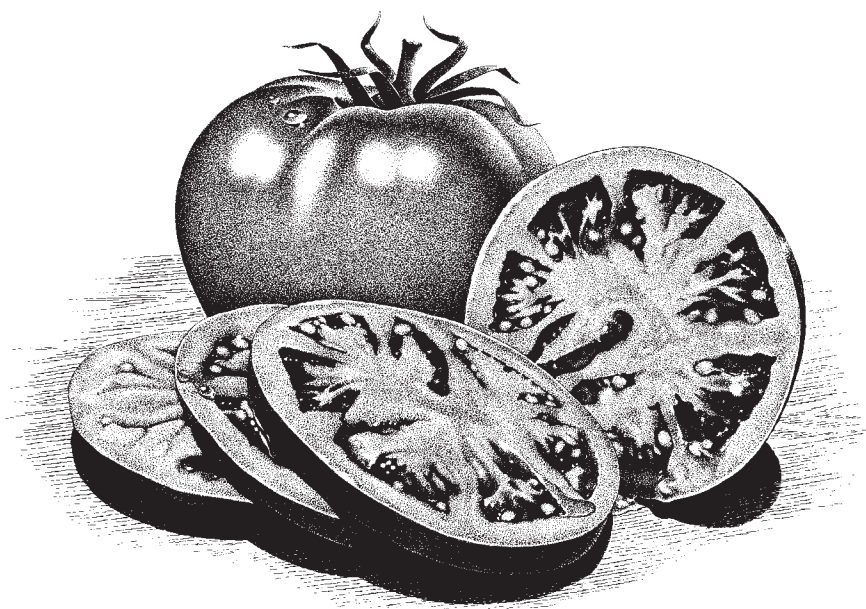
Soil

Tomatoes are grown on a wide variety of soils. They do best on a garden loam containing a fair supply of organic matter. The soil should be only mildly acid in reaction (pH of 6.0 to 7.0). Light, sandy soils warm up earlier and ripen the first fruits.

Fertilizer

Manure mixed in the soil adds both organic matter and fertilizer. To give the young plants a good start, place a handful (1 to 2 ounces) of a complete fertilizer (4-12-4, 5-10-5, or 5-10-10) in a circle 3 inches away from the plant and 3 to 4 inches deep.

An additional application of nitrogen about fruit set time, placed in a circle 1 foot away from the plant, will help sustain production.



Varieties

The small-vined, determinate varieties are especially good for the home garden where space is limited. Vigorous indeterminate types are preferred for staking. There are many good tomato varieties, including these:

Red types

- *Bush, early to midseason:* Santiam, Oregon Spring, Springset, New Yorker, Fireball, EarliroUGE, Earlibright, Cold Set, Jetfire, Willamette, Medford, Pilgrim.

- *Bush, midseason to late:* Pik Red, Pik Rite, Carnival, All Star, Setmore, Spring Giant, Supersonic, Sunny, Celebrity. (Hermiston area: Baja, Keno, Oregon Spring, Valerie.)
- *Staking, red:* Early Girl, Fantastic, Better Boy (late), Early Cascade, Heavyweight, Keno.

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OREGON STATE UNIVERSITY EXTENSION SERVICE

- *Cherry, red, indeterminate*: Sweet 100, Large German Cherry, Sweetie.
- *Cherry, red, determinate*: Small Fry.

Yellow types

- *Yellow, large-fruited*: Orange Queen, Jubilee, Golden Boy.
- *Cherry, yellow, determinate*: Gold Nugget.
- *Cherry, yellow, indeterminate*: Yellow Plum.

Propagation

A soil temperature of 60 to 70°F is desirable for seed germination. Plants may be grown from seed in a greenhouse, hot bed, cold frame, or window box, or purchased ready for transplanting. It takes from 5 to 8 weeks to produce good plants from seed, depending on the temperature.

Plant seed in rows in flats of moist garden loam—six to eight seeds per inch. Cover with plastic wrap or glass until plants are up. When the first true leaves appear, transplant into plant bands or other containers 2 to 3 inches in diameter.

Fertilize the seedlings by watering once a week with a booster solution, which you make by dissolving 1 to 2 tablespoons of a soluble, complete fertilizer in 1 gallon of water.

Seed also may be planted directly in the garden after mid-April, provided you control weeds by careful hoeing.

Planting

Grow greenhouse plants at cooler temperatures for a few days before you put them into the open ground. Plant as soon as the soil is in good workable condition and danger from frost is past (May 1–10 in most Oregon areas). Disturb the roots as little as possible in transplanting, and set the plants to the depth of the first leaves.

Plants can be set 1 to 3 feet apart, depending on the type of plant and the space available. Water each plant with a pint of booster solution mixed the same as for seedlings. If you direct-seeded, thin to one plant every 6 to 12 inches.

Plastic mulches and plant covers

The use of black plastic ground mulch is recommended, especially in western Oregon. Plastic mulch conserves moisture, controls weeds, increases soil temperatures, protects fruit from ground rot, enhances earliness, and increases yields and fruit quality.

Because tomatoes grow and set fruit better in a warm soil, some protection is advisable. A “tent” of clear polyethylene plastic is useful for this purpose. As warm weather comes, you can partially or wholly remove the plastic. Sometimes protection in the fall is helpful in extending the harvest season.

Supports for plastic covers over plants can be wickets of 11-gauge wire, 5 feet long, bent to form an arch. Lay sheets of plastic over each side, leaving a small opening at the top for ventilation. Tack the bottom of the plastic to a strip of wood or bury it in the soil on each side of the row. Spring-type clothespins hold the plastic to the wickets and close the ends of the tunnel.

You can make single plant covers by using two wickets, with plastic wrapped around in tepee fashion, leaving an opening at the top. On bright, sunny days, lower the plastic for additional ventilation.

You also can use row covers of spunbonded polyester or polyethylene, or perforated polyethylene, for 4 to 8 weeks immediately after you transplant or direct-seed.

Always remove the covers when plants begin to flower or if temperatures become excessive under the covers. Don't allow temperatures to exceed 90°F for more than 2 or 3 consecutive days. Plants under row covers accumulate two to three times more heat than they would exposed to the sun—and they'll benefit from the 2 to 4° of frost protection at night. Row covers increase not only soil temperatures and root growth but also early yields—and, in some cases, total yields.

Cultivation

Cultivation should be shallow to prevent damage to feeder roots. Cultivate only to control weeds and to improve soil water penetration.

Irrigation

Maintain a uniform moisture level during plant and fruit development for best results. A shallow sawdust, peat, or leaf-mold mulch or black polyethylene will hold moisture for longer periods of time. It's better to soak the soil thoroughly at intervals of a week to 10 days, rather than to sprinkle frequently.

Sprinkling in the later afternoon or evening may favor development of foliage disease. Drip irrigation or

other systems that don't wet fruit and foliage are advantageous. After the crop starts to ripen, drastically reduce or discontinue irrigation.

Insect and disease control

Spray or dust only as necessary for specific pests, following the manufacturer's instructions for mixing. Follow label instructions regarding pesticide use as harvest season nears.

Plant support

Keeping fruit off the ground is important to prevent fruit rot and damage from slugs and cutworms. Various methods are used.

You can make effective supports around each plant with wood or concrete-reinforcing wire. Make them about 18 inches in diameter and 1 to 5 feet high (Figure 1). With

this method, no pruning is necessary.

Keep all branches inside the trellis until they grow up and over the top. A clear plastic wrap around the cages will give some early season protection.

Staking and pruning

If you plan to stake your plants, set them 12 to 18 inches apart in the row. There will be more labor involved, and more danger from sunscald, but less soil rot. Leave one or two main stems for the plant, and remove the shoots (the arrows in Figure 2) to eliminate extra side branches.

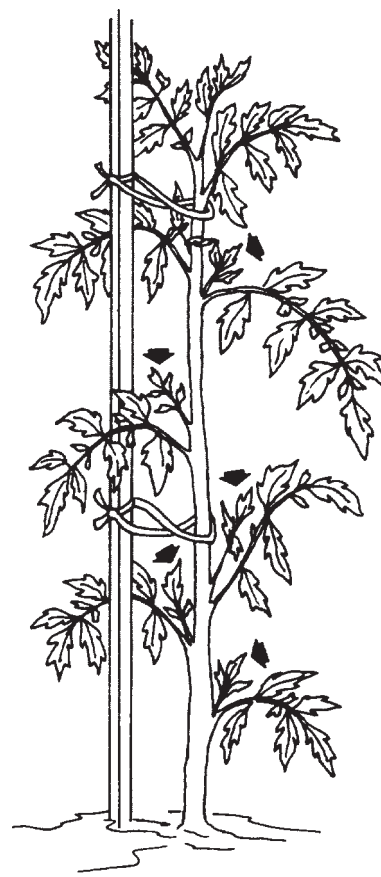


Figure 2.—A plan for staking tomatoes.

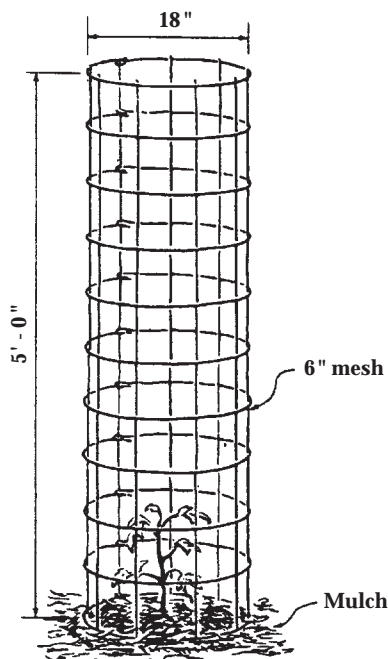


Figure 1.—A plan for supporting tomatoes with wire.



Use pesticides safely!

- **Wear** protective clothing and safety devices as recommended on the label. **Bathe or shower** after each use.
- **Read** the pesticide label—even if you've used the pesticide before. **Follow closely** the instructions on the label (and any other directions you have).
- **Be cautious** when you apply pesticides. **Know** your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.

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