

FS 53  
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# Tomatoes in the Garden

Tomatoes are the most popular vegetable in the home garden. They are a tasty fruit and supply vitamin C as well as many minerals needed for proper nutrition. They are 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). The lighter sandy soils warm up earlier and ripen the first fruits.

**Fertilizer.** Manure mixed in the soil adds both organic matter and fertilizer. A handful of a 4-12-4, 5-10-5, or 5-10-10 complete fertilizer placed in a circle 3 inches away from the plant and 3 to 4 inches deep will give the young plants a good start. An additional feeding about fruit set time, placed in a circle one 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 those listed below:

(F = Fusarium wilt resistance, V = verticillium resistance, N = nematode resistance)

**Early determinate:** Fireball, New Yorker (V), Starshot, Willamette, Springset (VF), Medford.

**Small fruited early types:** Immuna Prior Beta, Pixie, Presto.

**Medium early determinate:** Pik Red (VF), Heinz 1350 (VF), Bigset (VFN), Spring Giant (VF), Sunup (F), Bonus.

**Early indeterminate:** Early Girl (V).

**Medium early indeterminate:** Super Fantastic (VF), Jet Star (VF), Moreton Hybrid (VF), Floramerica.

**Late indeterminate:** Burpee Big Boy, Whopper, Ramapo (VF), Ace.

**Cherry:** Small Fry (VFN), Large German Cherry, Sweet 100, Oregon Cherry.

**Paste:** Chico III (F), Royal Chico (VF).

**Yellow, early determinate:** Golden Delight, Orange Queen.

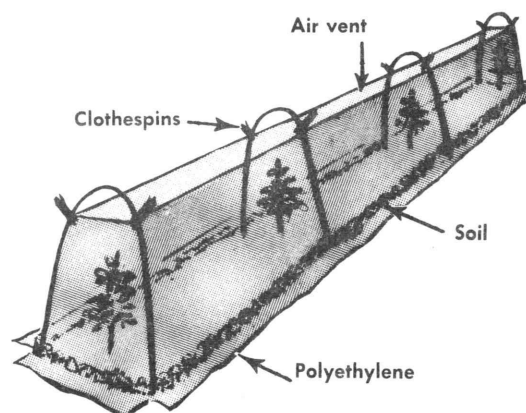
**Yellow, late indeterminate:** Golden Boy, Sunday (F), Jubilee, Caro Red.

**Propagation.** A soil temperature of 60 to 70 degrees 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 made by dissolving 1-2 tablespoons of a recommended fertilizer in a gallon of water. Seed may also be planted directly in the garden in the Willamette Valley after mid-April, provided weeds are controlled by careful hoeing.

**Planting.** Greenhouse plants should be grown at cooler temperatures for a few days before going 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 direct seeded, thin to one plant every 6-12 inches.

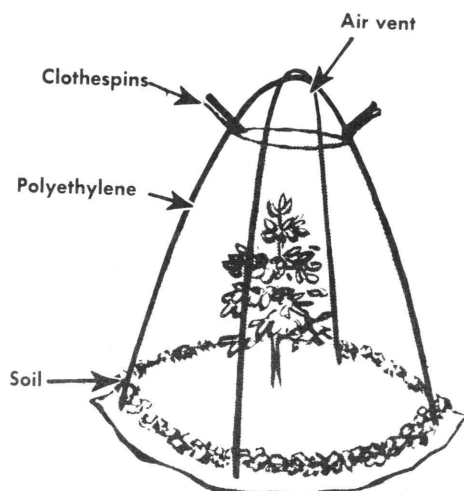
**Protection.** Since tomatoes grow and set fruit better in a warm soil, some protection is advisable. A "tent" of clear polyethylene plastic is useful for this purpose. As warm weather comes, the plastic can be partially or



wholly removed. Sometimes protection in the fall is helpful in extending the harvest season.

Supports for the plastic covers in rows can be wickets of 11-gauge wire, 5 feet long, bent to form an arch over each plant. Sheets of plastic are laid over each side, leaving a small opening at the top for ventilation. The bottom of the plastic is tacked to a strip of wood or buried 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.

Single plant covers can be made by using two wickets, with plastic wrapped around in tepee fashion, leaving an opening at the top. On bright, sunny days the plastic may be lowered for additional ventilation.



**Cultivation.** Cultivation should be shallow to prevent damage to feeder roots. Cultivate only to control weeds.

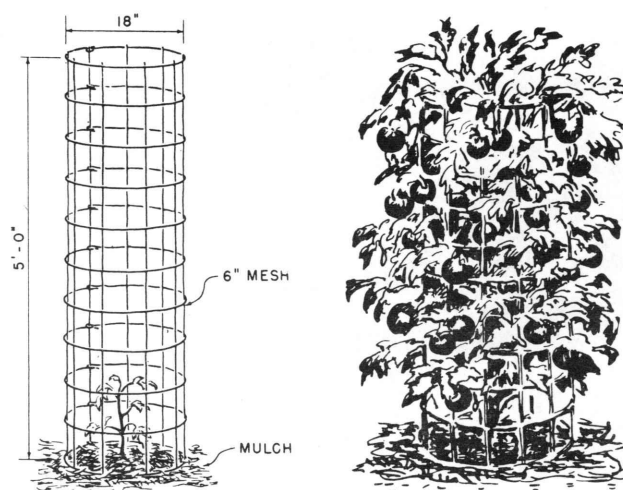
**Irrigation.** Maintain a uniform moisture level for best results. A shallow sawdust, peat, or leaf-mold mulch or black polyethylene will hold the moisture for longer periods of time. It is better to soak the soil thoroughly at intervals of a week to 10 days, rather than sprinkle frequently. Sprinkling in the later afternoon or evening may favor development of foliage disease.

**Insect control.** Spray or dust only as necessary, following the manufacturer's instructions for mixing. Malathion is a good general-purpose insecticide for tomatoes. If spider mites are a special problem, use Kelthane. Flea beetles can be very destructive on newly transplanted or emerging tomato seedlings. Control with Sevin. 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.

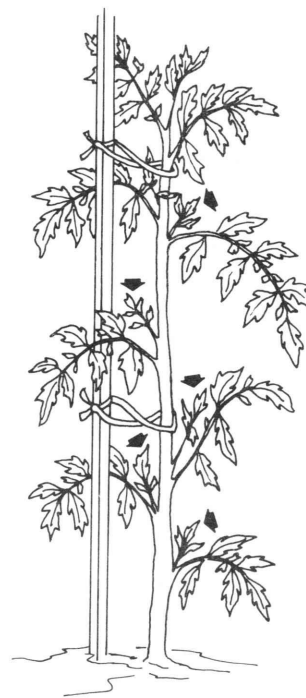
Effective supports about 18 inches in diameter and 1 to 5 feet high can be made of wood or concrete-reinforcing wire around each plant. With this method,

no pruning is necessary. Keep all branches inside the trellis until they grow up and over the top. A clear plastic wrap around the trellis will give some early season protection.



**Staking and pruning.** If plants are to be staked, set them 12 to 18 inches apart in the row. There will be more labor involved, more danger from sunscald, but less soil rot. Leave one to three main stems for the plant, removing the shoots (arrows) to eliminate extra side branches.

If plants are not to be staked, they may be grown on black plastic film to conserve moisture, enhance earliness, and minimize fruit rots by keeping fruit from contact with the ground.



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