

# Tomatoes in the Garden

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Tomatoes are the most popular home garden vegetable. Their fruit is tasty and can be used fresh from the garden or processed in many ways for later use. They are high in vitamins, especially C, and contain about 100 calories per pound.

## **DESCRIPTION**

Tomatoes originated in the Andes mountains in South America so are definitely a warm season crop. If it were not for freezing weather, plants would be perennial. Plant growth patterns are classified into determinate or indeterminate. Determinate plants grow about 12 to 18 inches high and set fruits that ripen over a relatively short time. Indeterminate vines keep elongating and setting fruit all season. This type is suited for supporting by cages or stakes.

## **PLANTING**

You should plant tomatoes in the sunniest part of your garden. Don't crowd them so they receive plenty of light. Since they're a warm season crop, unprotected transplants should be set in the garden 7–10 days after the last expected killing frost. Hotcaps or plastic covering may allow a week or two earlier planting. Special protection such as a Wall O' Water may permit 4 to 6 weeks earlier planting.

It does little good to rush the season too much because most varieties do not set fruit when night temperatures are below about 58°F. Glacier, Oregon Spring, Santiam and some other "super early" kinds are exceptions.

You can plant tomato seed directly into the garden 10–14 days before the last frost date. Seedlings will be sturdier and develop early branching. The root system is not set back by transplanting so harvest will be nearly as early as that from transplants set at their normal time.

Select transplants that are dark green, stocky, have 7–9 leaves and are 6–8 inches tall. Plants that have fruit on them will be stunted and yield poorly.

Space plants that will be supported by stakes or cages 1½ to 2 feet apart. Non-supported plants should be spaced 2 to 3 feet in the row with row spacing of 3 to 5 feet depending on variety.

Disturb the roots as little as possible and set the plants to the depth of the first leaves. Tall leggy plants can have lower leaves removed and all but the upper 4 inches buried reclining in a 4 inch deep trench.

## **GROWING TRANSPLANTS**

Plant seeds into a sterile seeding mix 6–8 weeks before transplanting time. Cover with glass or clear plastic and germinate at about 70°F. As soon as seeds germinate, move to a very light location where temperatures are 65°–68°F. Adequate light is essential to produce a quality plant. Cool white fluorescent tubes 2 to 3 inches above the plants, lighted for 14–16 hours per day should keep them from getting spindly. After second leaves form, transplant them into cell-packs or individual containers. Water each week with a ½ strength soluble complete fertilizer such as 20-20-20.

## **FERTILIZER**

You can grow a tomato crop with less fertilizer than many garden vegetables. Too much fertilizer will produce excessive foliage and delay fruit ripening. Instead of broadcasting fertilizer over the entire area, place 3–4 tablespoons of a complete fertilizer such as 16-16-8 or double that amount of 5-10-10 or similar formula in a 6 inch deep hole. Set the tomato plant about 4 inches to the side of the fertilizer but don't let roots contact it.

When first fruits are golf ball size, apply ¼ cup of ammonium sulfate a foot or so from the plant and water it in well for continued vine growth and yield.

## **IRRIGATION**

Soak the soil thoroughly at 7–10 day intervals once plants are well established. Light, frequent sprinkling, especially late in the day will encourage diseases. After the soil warms (mid-late June) a mulch of grass clippings, leaves or sawdust will maintain a more uniform moisture level. Irregular watering or over watering (especially on heavy soils) can cause blossom-end rot, a leathery, dark colored spot that can occupy the bottom one-third of the fruit.

## **CULTIVATION**

Cultivate very shallow and only to control weeds or break soil crust for water penetration. The mulch described above removes most need for soil stirring.

## **SUPPORT**

Wood or wire cages 12–16 inches in diameter and 2–3 feet high will keep most of the ripening fruit off the ground. Indeterminate plants will require taller cages or staking and pruning.

Staking requires more work but fruit is not in contact with the soil and is easier to harvest. Select the main stem and remove side shoots where they arise at leaf joints. As it gets taller, loosely tie the stem to an upright stake 4–6 feet tall.

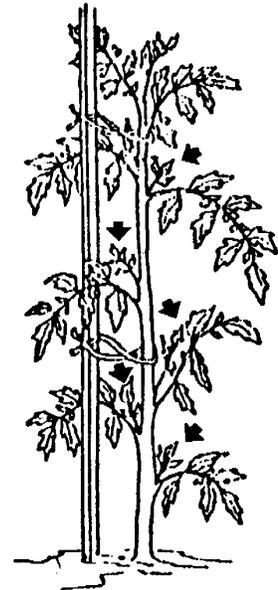
*Leave one main stem for each plant, removing the shoots (arrows) to eliminate extra side branches.*

## **INSECT CONTROL**

Flea beetles attack small plants. Control with sevin but don't "dump" dust heavily. Leaves are eaten by tomato horn worms. Control by hand picking. White flies may build to tremendous numbers late in the season. Control with Thiodan, Cygon or insecticidal soap if yield is being reduced.

## **DISEASE CONTROL**

Use resistant varieties that have V, F, N (Verticillium, Fusarium, nematode) designated in their name. Improve drainage in heavy soils or use raised beds. Let soil dry between waterings and don't sprinkle late in the day. If you use tobacco, don't handle plants unless you've washed hands thoroughly with soap. Control foliar blights with Daconil.



SUPPORT

## **HARVEST**

Pick when fully colored but firm, especially for canning. They will ripen with high quality if picked as first color shows. At the end of season, gather any that have a fringe of pink. Store 1–2 layers deep in a box and keep at 50°–60°F. Individual wrapping is not necessary.

## **VARIETIES**

All determinate, except those marked (I):

- **Earliest:** Sub Arctic Maxi, Pixie Hybrid, Glacier (I), Oregon Spring.
- **Cherry Types:** Presto, Toy Boy Hybrid, Sweet 100 Hybrid (I), Sweet Million Hybrid (I).
- **Medium Size Fruits:** Early Girl Hybrid (I), Early Cascade Hybrid (I).
- **Large Fruit:** Moreton Hybrid (I), DX52-12, Celebrity Hybrid, Jet Star Hybrid, Red King Hybrid, Red Express (I) Hybrid, Pole King Hybrid (I).
- **High Solid:** Square Paste, Royal Chico, Roma VF.

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