Soil preparation

Work the garden soil only when it is dry enough not to stick to the garden tools. Several weeks before planting, work the top 8 to 10 inches of soil. Remove all rocks and trash from the soil and rake it to break up large clods.

Tomatoes grow best in soils that have lots of organic matter. If possible, spread 2 to 3 inches of organic material such as compost, leaves, or rotted hay over the planting area. Mix this organic material into the top 4 to 6 inches of soil.

Planting

Most families need only a few plants, so it is best to buy plants and not grow them from seed. Buy healthy, green plants that are 6 to 8 inches tall.

Do not set out tomato plants until all danger of frost has passed. Transplant fall tomatoes in the garden about 100 days before the first expected frost.

If possible, set out tomatoes on raised
If you plan to grow single plants, dig a hole 2 feet wide and 10 inches deep. Refill the hole with half soil and half organic matter. For this type of planting, mix 2 level tablespoons of fertilizer into this planting area.

**Fertilizing**

Add 2 to 3 pounds of fertilizer such as 10-10-10 for every 100 square feet of garden area. Spread the fertilizer evenly over the area, and then mix it into the top 3 to 4 inches of soil.

**Watering**

Water the tomato plants slowly and deeply to help them develop a strong root system. Do not let the tomatoes wilt severely, or yields and fruit quality will be low.

**Care during the season**

For the highest yields, place mulch around the tomato plants. Spread a 2- to 3-inch layer of organic material such as compost, leaves, or hay around the growing plants. Mulching will help stop weed growth and water loss from the soil.

You can let tomatoes grow on the ground or support them with stakes or cages. When you stake tomatoes, put the stake in shortly after transplanting to lessen root damage. A 6-foot-long

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**Figure 1.** Plant tomatoes on beds raised to about 6 inches.

beds of soil that are about 6 inches high (Fig. 1). Make the transplant holes 3 to 4 inches deep and 2 to 4 feet apart in the row. For staked or caged plants, space the rows at least 3 feet apart. For unsupported plants, leave 4 to 5 feet between the rows.

Transplant your tomatoes in the evening or on a cloudy day to keep them from drying too much and wilting. Before placing transplants into the soil, fill the transplant holes with water and let it soak in.

**Figure 2.** Plant tomatoes slightly deeper than they were first growing (A). If the plants are leggy, set them as shown (B).

Plant each transplant slightly deeper than it had been growing (Fig. 2). Pack the soil loosely around the plant. Leave a slightly sunken area around each plant to hold water.

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**Figure 3.** Loosely tie the tomato plants to support stakes.
stake set 10 inches deep in the soil will work well. As the plant grows taller, tie it loosely to the stake every 12 inches with pieces of rag or twine (Fig. 3).

Prune the staked tomatoes to produce a more orderly vine. Remove the small shoots that grow out of the point where each leaf joins the main stem (Fig. 4). Remove the shoots by bending them sideways until they snap.

To develop the plant into two main vines, remove all but the lowest shoot. It will develop into a second branch.

Caging is another way to train tomato plants. You can make a good cage with a piece of concrete reinforcement wire 5 feet tall and 6 feet wide. Put the cages over the young plants. Push the cages down into the soil to keep them from blowing over. Using this method, you can give the vine support without having to tie it (Fig. 5).

Tomatoes growing in cages do not need to be pruned.

When the first fruits are about 1 inch in diameter, scatter 1 level tablespoon of fertilizer around each plant. Scatter it about 6 inches from the stalks. Work it lightly into the soil. Water the plants after fertilizing.

Fertilize the plants every 3 to 4 weeks with 1 to 2 level tablespoons of fertilizer.

To control weeds, you may cultivate or hoe around the plants. Work the soil only deep enough to kill the weeds but shallow enough not to damage the tomato plant roots.

### Insects and diseases

Many insecticides are available at garden centers for homeowner use. Sevin is a synthetic insecticide; organic options include sulfur and Bt-based insecticides. Sul-

<table>
<thead>
<tr>
<th>Name and description</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flea beetle</td>
<td>⅛ inch long; bronze-black, blue, or green, with light markings; jumps quickly; eats holes in leaves</td>
</tr>
<tr>
<td>Hornworm</td>
<td>A 3-inch-long caterpillar with a horn on the back end; green with stripes on the side</td>
</tr>
<tr>
<td>Psyllid</td>
<td>⅛ inch long; pale green or yellow; adults are banded black and white</td>
</tr>
<tr>
<td>Whitefly</td>
<td>Adults are white; nymphs do not move</td>
</tr>
</tbody>
</table>
fur also has fungicidal properties and helps in controlling many diseases. Neem oil, sulfur, and other fungicides are available for use.

**Harvesting**

For best quality, pick tomatoes at full color. If you pick them when they are pink, let them ripen at room temperature. They may be stored in the refrigerator after they reach full color.

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**Acknowledgments**

This publication was revised from earlier versions written by Sam Cotner, Professor Emeritus and former Extension Horticulturist.