

Tomato Information

1. Some vocabulary to know:
 - determinate—spreads laterally, little or no staking required, ripens all fruit in 2-3 weeks so good for canning
 - indeterminate—grows vertically until frost, best if staked or caged, fruit ripens until frost so good for fresh eating
 - parthenocarpic—means “virgin fruit.,” flowers will form fruit without fertilization/pollination, tomato examples include Oregon Spring, Siletz, Legend (able to set fruit earlier giving ripe seedless tomatoes 10-14 days earlier than other types)
 - hardening off—putting a plant outside for increasing amounts of time and sun exposure each day to get it accustomed to being out of the sheltered greenhouse. Start with a half hour in the shade, gradually working up to all day in full sun.
2. Location—tomatoes do best planted in full sun (at least 6-8 hrs./day of direct sunlight) and not in the same location as plants from the same family (tomatoes, peppers, eggplant, tomatillos, potatoes, tobacco) have been planted during the last three years
3. Soil preparation—ESSENTIAL for good production. Generous amounts of compost mixed well into the soil is crucial. DO NOT add additional nitrogen because it encourages leaf growth over root and flower development and results in fewer tomatoes. Add water and let it soak in. Some people like to put a mixture of ¼ cup bone meal, ¼ cup organic tomato-vegetable fertilizer, and 1 tsp. magnesium covered with 2-3” of soil in the bottom of the hole.
4. Transplanting and staking
 - a. Dig a hole deep enough to bury the whole plant except for the top two sets of leaves. Pinch off all but those top two sets of leaves. Roots will grow from all the little hairs along the stem making the plant stronger (can absorb more nutrients and water) and more stable.
 - b. Put the stake in before filling the hole while you can still see the roots. Fill the hole and firm the soil around the roots. In the garden, a tomato cage can be used instead of or with the stake. These supports are more important for indeterminate than determinate tomatoes.
 - c. Use a tomato tie to loosely tie the tomato to the stake, using a figure-8 formation.
 - d. Water well. (One good rule of thumb is to water when the top 1” of soil has dried. This often averages about 1” of water a week in the heat of summer. Watering early in the day is considered a best practice, as the water won’t evaporate too quickly, but any splash on the plants will dry off as the day warms. It’s better to soak the roots thoroughly once every several days than it is to water lightly every day, as soaking will encourage deeper root growth. (If your plants are looking slightly wilted late in the heat of the day, that’s not necessarily a sign that water is needed. Check the soil first. However, if they are wilted in the morning and they don’t have any disease, they are in need of water.)
 - e. Mulch to prevent drying and weeds but keep the mulch away from the stem.
5. Planting horizontally—Soil is warmer at the surface and tomatoes need warm soil. To take advantage of this, follow the directions above for transplanting except instead of digging a hole, dig a trench about 3” deep and long enough to hold the tomato plant when laid on its side except for the top two sets of leaves. Bury the stem and roots. Within 2-3 days, the top part that is not buried will become vertical.
6. Blossom-end Rot (BER)—caused by a lack of calcium (but rarely due to a lack of calcium in the soil)
 - a. Usually it’s not that the soil is deficient, but that the plant can’t take up enough calcium. If in doubt, do a soil test.
 - b. Most common causes—
 - 1.) Drown and drought watering
 - 2.) Damaged roots
 - 3.) Planting tomatoes in cold soil. The optimum soil temperature for planting tomatoes is 70° with nighttime air temperature over 50°. Early varieties of tomatoes are less susceptible.
 - 4.) Not enough magnesium causing an inability of the plant to take up calcium.
 - c. BER can’t be cured, only prevented.