



# Growing Healthier Tomato Plants

Whether you plant only the rarest, old-fashioned tomato varieties or you swear by newfangled hybrids, tomato plants generally thrive when they have at least six hours of full sun per day, plenty of room to spread out, and rich, well-draining soil. Of course, even when growing conditions seem just right, problems still may arise.

In a community garden setting, unless you've had the same plot for several years, you may not know what was grown there in the past—or how fastidious the gardeners before you were about keeping weeds down and monitoring for insect-damaged or diseased plants. As a result, you may have to contend with extra weeds or certain garden pests, but there are measures you can take to protect your plants and increase the likelihood that you'll end up with plenty of tasty tomatoes this season.

## Common Tomato Troubles and Best Practices

### Tomato Blight

If tomato plants are grown in the same spot, year after year, they are much more likely to develop certain diseases which can overwinter in the soil. Tomato blights are among the most common of these, with various types striking your plants at different times during the growing season.

Blight often will strike the lower leaves of tomato plants first, causing small brown or black spots to appear. You might also notice dark, sunken patches on tomato stems and, eventually, on the fruits themselves.



Tomato late blight leaf sporulating lesions

Photo by Scot Nelson from Honolulu, Hawaii, USA, CC BY-SA 2.0, via Wikimedia Commons



Tomato late blight fruit damage

Photo by Scot Nelson from Honolulu, Hawaii, USA, CC BY-SA 2.0, via Wikimedia Commons

**Crop Rotation**—Whenever possible, it's a good idea to rotate your crops. That means planting your tomatoes (and tomato relatives such as potatoes and eggplants) in a *different* area within your garden plot from one year to the next.

**Disease-Resistant Varieties**—Choose tomato varieties which have been selected for natural resistance to blight. In 2012, researchers at Cornell University tested 35 tomato varieties and found several that stood up to late blight particularly well. They included Mountain Magic, Mountain Merit, Defiant PHR, Lemon Drop, Matt's Wild Cherry, Plum Regal, and Mr. Stripecy. For extra protection, plant more than just one tomato variety.

**Room to Grow**—Gardeners with smaller plots may be tempted to cram as many tomato plants in as possible, but, without adequate air circulation, overcrowded plants can become more susceptible to disease. When transplanting young plants, imagine how large each will be as adults and give them extra breathing room. After all, you'll likely get more produce from a few very healthy plants than several sickly ones!

**Careful Watering**—When watering, direct water to your plants' roots (at soil level), trying to keep the leaves of your plants as dry as possible. Wet leaves can become a vector for plant disease—especially in the absence of good air circulation.

**Sanitizing Tools**—Before and after you use them, you may want to sanitize garden tools, plant stakes, and tomato cages by dipping them in a mild bleach solution. (One-half cup of bleach to about five cups of water is a good ratio.) Also, be sure to dry everything well with a clean rag to prevent rusting.

**Weeds and Waste**—Remove any diseased leaves or fruits you see in your plot. Do not compost these, as doing so can spread disease to other plots. Instead, bag up diseased plant debris and throw it away.

## Blossom End Rot

Once tomatoes begin to form on your plants, you may notice they look stunted and have dark, leathery spots on their ends. This is known as blossom end rot and most frequently indicates your plants aren't getting the calcium they need. Poor calcium uptake can occur when your soil pH is out of whack or if your soil has a nutrient imbalance.



*Blossom End Rot*

*Photo by A13ean, CC BY-SA 3.0, via Wikimedia Commons*

**Good Soil Preparation**—Before you plant your tomatoes, amend the soil in your plot with plenty of organic matter such as aged compost or worm castings. These amendments will add a variety of slow-release nutrients and improve the overall soil structure. They can help to balance pH issues, too.

**Don't Plant too Early**—Although it may be tempting, avoid planting tomatoes in soil that is still very cold. Tomatoes planted in warm soil are much less susceptible to blossom end rot.

**Regular Watering**—Be sure to water deeply once or twice a week, particularly during the warmer months, so that your plants don't become stressed.

## Tomato Hornworms

When they're fully grown, you can't miss them. Tomato hornworms voraciously eat tomato plant leaves and stems and can decimate your crop, if left unchecked.

**Inspect Regularly**—Tomato hornworms start their lives as rounded, greenish eggs, laid on the undersides of tomato leaves. Check the undersides of tomato plant leaves every few days for signs of their eggs, and you can remove these before they have the chance to hatch.

**Handpick**—If you do see any tomato hornworms that successfully hatch, handpick and remove them from the garden. Keep in mind there is one instance in which it's best to leave hornworms where they are! Beneficial insects sometimes lay their eggs on the backs of tomato hornworms (see lower photo at right.) So, if you see a hornworm covered with white, elongated egg casings, it has become host to a special kind of parasitic wasp which can offer big benefits in your garden.



*Tomato Hornworm*

*Photo by Vijay J Sheth, Public domain, via Wikimedia Commons*



*Tomato Hornworm with wasp eggs*

*Photo by Max Wahrhaftig, CC BY-SA 3.0, via Wikimedia Commons*

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Contact the Community Garden Supervisor at [communitygardens@bloomington.in.gov](mailto:communitygardens@bloomington.in.gov).**