



## Tomatoes

### Frequently Asked Questions

FSA6017

[www.uaex.edu/tomatoes](http://www.uaex.edu/tomatoes)

#### Q. What causes the lower leaves of my tomato plants to roll up?

A. Leaf roll (curling of the leaflets) is a physiological condition that occurs most commonly when plants are trained and pruned. Any type of stress can cause leaf roll. It does not affect fruiting or quality, and it is not a disease.

#### Q. What causes the flowers to drop off my tomato plants?

A. During unfavorable weather (night temperatures lower than 55 degrees F or above 72 degrees F and day temperatures above 95 degrees F with dry, hot winds), tomatoes do not set fruit and the flowers drop. The problem usually disappears as the weather improves.

#### Q. What causes the young leaves of my plants to become pointed and irregular in shape? I noticed the twisting of the leaves and stems after spraying the plants for the first time.

A. Your tomato plants have been injured by 2,4-D or a similar weed killer. Never use the same sprayer for weed control in your vegetable garden you used on your lawn. Drift from herbicides originating one-half mile or more away can also injure tomato plants. A virus disease called cucumber mosaic virus (CMV) can mimic these symptoms.

#### Q. How often should my tomato plants be fertilized?

A. Fertilize the garden before planting tomatoes. Apply fertilizer again when fruit first sets. After the first fruit sets, side-dress the plants with additional fertilizer every two weeks. Fertilize plants grown on sandy soils more frequently than those grown on heavy clay soils. A general side-dress fertilizer recommendation is 1 1/2 level tablespoons of a complete fertilizer (10-20-10 or 13-13-13) scattered around the plant and worked into the soil.

Q. What causes large, black spots on the bottom or blossom end of my tomatoes?

A. Blossom-end rot is caused by improper moisture conditions. This results in a calcium deficiency in the developing fruit. Make sure the soil pH is above 6.0. Maintain uniform soil moisture as the fruit grows. Remove affected fruit. When possible, use calcium nitrate to fertilize the plants.

Q. If tomatoes are picked green or before they are fully mature, how should they be handled to ensure proper ripening and full flavor?

A. Never refrigerate tomatoes if immature when picked. Place them in a single layer at room temperature, and allow them to develop full color. When fully ripe, place them in the refrigerator where they can be stored for several weeks.

Q. My tomatoes were healthy during the spring and early summer; yet after a rain, they wilted and died very rapidly. I found a white fungal growth at the base of the plant.

A. This is southern blight, a soilborne fungus that lives on organic material in the soil. Deep burial of undecomposed organic material in the soil reduces this problem. Control foliage diseases of tomato plants, because the fallen leaves around the base of the plant feed the fungus and allow it to build up near the plant and cause damage. Crop rotation also reduces the incidence of southern blight.

Q. My tomato plants wilted rapidly. When I cut the stem open, I found a brown ring around the inside.

A. This is fusarium wilt caused by a soilborne fungus that attacks tomatoes and other crops. Use resistant varieties to control this disease. Most commercial tomato varieties are resistant. Before you plant a cultivar, make sure it is resistant to fusarium wilt. This resistance is denoted by the letter F after the name; for example, Celebrity VFN.

Q. The lower foliage on my tomatoes is beginning to turn yellow and drop. The leaves have circular dark brown to black spots.

A. This is Alternaria leaf spot or early blight, a common problem on tomatoes that causes defoliation usually during periods of high rainfall. Plant tomatoes on a raised bed to improve water drainage, and space them so air can move to dry the foliage and prevent diseases. Start a fungicide spray program when the fruit is set and continue at one-week intervals during the growing season until harvest. Use a

fungicide such as Daconil approved for home garden use.

Q. The foliage on my tomatoes is covered by small circular-shaped spots that cause it to turn yellow and drop off. This occurs in all seasons and is on the top and bottom leaves.

A. Several types of leaf spots attack tomatoes. Septoria leaf spot quite often starts at the bottom of the plant and rapidly spreads. It can be controlled with a fungicide spray. Begin the spray program early in the life of the plant.

Q. What causes my upper tomato leaves to turn yellowish and fall off?

A. Many conditions may cause these symptoms, including spider mites, diseases and nutrient deficiencies. Examine the underside of the leaves for small, red to greenish mites. If you find mites, treat with two to three applications of insecticides at five-day intervals.

Q. How do you select good transplants at nurseries or garden centers?

A. First, select the right cultivar. Look for plants that appear healthy, dark green in color and do not have any spots or holes in the leaves. The ideal tomato transplant should have five leaves and no flowers. Avoid tall, spindly plants with weak stems and leathery purple leaves.

Q. What causes some of my early tomato fruit from the spring garden to be oddly shaped and of poor quality?

A. This condition is usually caused by stress and low temperatures during flower formation, bloom and pollination. Fruit set when temperatures are 55 degrees F or below often are odd-shaped and of poor quality. The blooms are abnormal because of temperature conditions and grow into abnormal, odd-shaped fruit. Another name for this disorder is catfacing.

Q. My tomato fruits have small yellow specks on the surface. When the fruit is peeled, those yellow specks form a tough spot that must be cut off before eating the tomatoes. What is wrong?

A. The yellow speckling is caused by injury from sucking insects such as stinkbugs or leaf-footed bugs. Early control of sucking insects that feed on the fruit is necessary to reduce the problem.

Q. Will tomatoes become fully ripe and red if they are harvested early?

A. Yes. Fruits harvested at the first blush of pink will ripen fully. A tomato picked at the first sign of color and ripened at room temperature will be just as tasty and colorful as one left to fully mature on the vine. Picking tomatoes before they turn red reduces bird and squirrel damage.

Q. My tomato plants look great. They are dark green, vigorous and healthy. However, flowers are not forming any fruit. What is the problem?

A. Several conditions can cause tomatoes to not set fruit. Too much nitrogen fertilizer, nighttime temperatures over 75 degrees F, low temperatures below 50 degrees F, irregular watering, insects such as thrips or planting the wrong cultivar may result in poor fruit set.

Q. Are there really low-acid tomato varieties?

A. Some varieties are less acidic than others. Some yellow-fruited types are slightly less acidic than the normal red varieties. Flavor differences between varieties are not because of differences in acid content but the sugar-to-acid balance. Cherry tomatoes are higher in both sugar and acid levels.

Q. When caging tomatoes, how large are the cages?

A. The diameter of the cage should be at least 18 to 20 inches at the top. Smaller cages often restrict plant growth and reduce yields. Height of the cage varies, but generally 3 1/2 feet is sufficient for the recommended varieties. However, with vining types such as Better Boy or Cherry Grande, a cage 5 feet in height is preferred. Whatever cultivar, a cage 3 1/2 feet tall is sufficient for most fall garden tomatoes.

Q. What causes a tomato fruit to crack? What can I do?

A. Cracking is a physiological disorder caused by soil moisture fluctuations. When the tomato reaches the mature green stage, reduce or cut off the water supply to the plant as the tomato begins to ripen. At this time, the skin around the outer surface of the tomato becomes thicker and more rigid to protect the tomato during and after harvest. If the water supply is restored after ripening begins, the plant resumes translocation of nutrients and moisture into the fruit. This causes the fruit to enlarge, and the skin splits around the fruit resulting in cracking. The best control for cracking is a constant and regular water supply. Apply a layer of organic mulch to the base of the plant. This serves as a buffer and prevents soil moisture fluctuation. Some varieties are resistant to cracking, and we try to recommend these varieties.

Q. My tomato plants are stunted and have pale yellow foliage. The root system has knots or swelling on the roots.

A. These are root-knot nematodes. Some varieties such as Celebrity and Better Boy resist this problem. It is best to use only nematode-resistant varieties. Nematode resistance is shown by the letter N after the name; for example, Celebrity VFN.

Q. We planted tomatoes in our small garden. They are loaded and are the best tomatoes we have ever had; however, there are some small holes near the stem end of the tomato. When we cut the tomato open, there is a small worm inside. What is it and what can we do?

A. Your fruit has been invaded by the tomato pinworm. They usually do not damage all fruit and can be controlled only by a preventive insecticide spray every 7 to 10 days. When the damage is evident, it is too late to do anything about it.