Trouble-shooting tomato problems

There’s a reason why farmers and avid gardeners watch the weather so closely. Climatic conditions such as temperature, rainfall and humidity can greatly influence which disorders are likely to affect a crop.

Currently, conditions exist that are ideal for several tomato disorders. If you are growing tomato plants, be on the lookout for blossom-end rot and late blight.

Blossom-end rot
Blossom-end rot is a common problem on tomatoes but can also occur on peppers, squash, and watermelons. It is more common on fruit that is one-third to one-half grown, and it occurs on the blossom end of the fruit. It is not a disease but a calcium deficiency.

As the tomato develops, water moves rapidly into the developing fruit. However, calcium moves slowly in plants and even slower into the fruit. Calcium is an important component in plant cells and a lack of calcium will result in small, water-soaked spots that develop into dark brown, leathery spots that may involve half the fruit.

The uptake of calcium from the soil by the plant can be reduced by fluctuations in soil moisture – either excessively wet soil or excessively dry soil. Fluctuations in soil moisture may cause blossom-end rot.

Prevent blossom-end rot by maintaining a soil pH around 6.5 and uniform soil moisture by irrigating and mulching, and avoid heavy applications of nitrogen.

If you do experience blossom-end rot, spray the plant’s foliage with 2 level tablespoons of 96 percent calcium chloride in 1 gallon of water at seven to 10-day intervals. Several convenient “stop-rot” products are available at local garden centers. Begin spraying with the first appearance of symptoms. Overdosing plants with calcium chloride may result in leaf burn. Spray on cloudy days or wait until the sun is low.
Late blight
Late blight is a disease caused by a fungus. It is best known as the disease that was responsible for the Irish potato famine in the mid-nineteenth century. It affects many plants in the Solanaceae family, including tomato, potato, pepper, and eggplant.

Since the pathogen does not survive in the soil, it usually enters the garden on infected transplants or live spores that are blown in with wind or rain. It spreads most rapidly during moderate temperatures (60° to 80°F) and high moisture conditions such as rain, fog, heavy dews or high relative humidity.

Recent climatic conditions have caused an outbreak of late blight in southeast Louisiana.

On tomato leaves, the symptoms of late blight initially consist of light brown to purplish spots that rapidly enlarge to purplish, blighted areas. Early in the morning and under wet conditions, a white growth of the fungus may be visible on the lower leaf surface. Stems may become infected, as well, with large purple to black sections that make stems look as if they were burned.

Several preventative and control measures are required.
- **Scouting:** regularly inspect your tomato plants and try to catch this disease as soon as possible to prevent its spread.
- **Sanitation:** eliminate infected plants as soon as the disease is identified.
- **Applying fungicides:** spray plants on a regular basis with fungicides such as chlorothalonil, mancozeb, copper or a combination of mancozeb plus copper. When using the mixture of mancozeb and copper, allow it to sit for about 30 minutes before spraying and stir it frequently. Chlorothalonil may be used up to and including the day of harvest, whereas mancozeb cannot be used within five days of harvest. Because these fungicides are protectants only, thorough spray coverage is essential for control.

With any luck, warmer weather will slow this disease but gardeners should keep an eye on their prized tomato plants.
Theresa Friday is the Residential Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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