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## **Blossom-end rot can attack your tomatoes**

Blossom-end rot of tomatoes is a common problem which occurs under conditions of high plant-water stress and heavy fruit load.

The first sign is a small, water-soaked area around the blossom end that rapidly darkens and enlarges. As it enlarges, it shrinks, and the area becomes sunken and leather-like. Early fruit may have blossom-end rot, and those that develop later are normal.

Blossom-end rot is a symptom of calcium deficiency in the fruit. It even can occur when there is abundant calcium in the soil and in the plant, because it's due to poor calcium distribution in the plant.

Calcium, dissolved in water, moves through the plant in the vascular system from the roots to the leaves. Under high-moisture stress, the water moves rapidly to the leaves. Fruit does not transpire as much as leaves and tends to be bypassed. The result, in localized calcium deficiency in an area of rapid growth — the end of the fruit — causes cell collapse and the sunken-lesion symptom of blossom-end rot.

Another factor in blossom-end rot is over-fertilization, which stimulates vegetative growth. Excessive vegetative growth increases the transpiration surface and further prevents calcium accumulation in the fruit. Hot, windy conditions with low relative humidity can cause high-transpiration rates and fluctuations in soil moisture during periods of rapid plant growth, create moisture stress and limits calcium distribution to the fruit.

Preventing moisture stress is important to control blossom-end rot, especially during fruit set and fruit enlargement.

Plants require 1 acre-inch of water per week or more in sandy soils and during hot, windy weather. Mulch will conserve moisture. Check soil pH and soil nutrient levels and adjust the pH to 6.0-7.0. Balance nutrients — nitrogen, potassium, phosphorus, magnesium and calcium. **The primary factor, however, is maintaining uniformly adequate soil moisture throughout the season.**

If blossom-end rot is showing up on your tomatoes, mix four tablespoons of calcium chloride per gallon of water and make three applications of this mixture at seven-day intervals. Or, you can purchase a product such as Stop Rot, Tomato Saver, End Rot, or Blossom-End Rot Preventer and apply according to label directions.

Also, after the gardening season is over, take a soil sample to see if soil pH is too low. Remember there is no charge for having your soil tested.

For information on gardening, call University of Arkansas Division of Agriculture Cooperative Extension office at 425-2335.

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