

blespoons per gallon of water). Spraying the plants with calcium has no effect on BER.

- Some tomato varieties tend to be more sensitive to conditions that cause BER. Try growing several varieties and keep notes as to their performance.

- If you experience severe problems with BER, you should remove the infected fruit. Once a fruit develops BER, it will not regrow or repair the infected area. Remove the fruit; otherwise, the damaged area will serve as an entry point for disease-causing bacteria or fungi.



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Horticulture Notes

Blossom-End Rot In Tomatoes: Causes and Prevention

Tomato growers must take care to avoid blossom-end rot (BER), a disorder that can dramatically reduce fruit quality and quantity. By using a few simple irrigation and fertilization practices, damage from BER can be prevented or reduced.

Blossom-end rot is a physiological disorder, or an abiotic disease. **It is not a disease.** It is easily identified as a brown, leathery rot developing on or near the blossom-end of the fruit. It starts with a dry brown lesion the size of a dime, generally increasing in diameter as the condition worsens. In time, lesions often become covered with a secondary black mold. Peppers, eggplants, cucumbers, and watermelons are also susceptible to BER. The methods described below to manage BER for tomatoes are equally effective for these other vegetable crops.

BER is caused by a calcium deficiency, usually induced by fluctuations in the plant's water supply. Because calcium is not a "mobile" element in the plant, even brief changes in the water supply can cause BER. Droughty soil or damage to the roots from excessive or improper cultivation (severe root pruning) can restrict water intake preventing the plants from getting the calcium that they need. Also, if plants are growing in highly acidic soil or are getting too much water from

heavy rain, over-irrigation, or high relative humidity, they can develop calcium deficiency and BER.

To manage BER, take the following steps:

- Keep the soil's pH at 6.0 to 6.5. Perform a soil test and apply the recommended rate of lime, using **dolomitic** or **high-calcium limestone**. Be sure to apply and incorporate lime 2 to 4 months **before planting** tomatoes.
- Apply the required amount of fertilizer when necessary based on soil test results for tomatoes. Applying too much fertilizer at one time can actually induce BER. Following soil test recommendations is the most accurate way to fertilize properly.
- Apply mulch to conserve moisture. Use pine straw, straw, decomposed sawdust, or newspaper. Mulches conserve soil moisture and reduce incidence of BER.
- Give your plants adequate water. Tomato plants need about 1.5 inches of water per week during fruiting. Extreme fluctuations in soil moisture can result in a greater incidence of BER.
- If your plants develop BER, drench the soil around their roots with a calcium solution containing four pounds of calcium nitrate or calcium chloride per 100 gallons of water (or four level ta-