

Plant Disease Notes

Blossom-End Rot of Tomatoes

Blossom-end rot is a disorder that can dramatically reduce both quality and quantity of tomato fruit.

Symptoms. Blossom-end rot, a physiological disorder in tomatoes, is easily identified as a brown or black leathery rot on or near the blossom-end of the fruit. Damage begins as a dime-size, dry, brown lesion which generally increases in diameter as the condition worsens. In time, these lesions often become covered with a black mold.

Persistence and Transmission. Blossom-end rot is caused by calcium deficiency, usually due to fluctuations in the water supply. Because calcium is not a highly mobile element, even the briefest changes in the water supply can cause blossom-end rot. Soil under drought conditions or damage to the roots from excessive or improper cultivation that restricts water uptake can prevent plants from getting the calcium they need. Also, if plants are growing in highly acidic soil or are getting too much water from either heavy rain, overirrigation, or high relative

humidity, they can develop calcium deficiency and blossom-end rot.

Control. To control blossom-end rot, take the following steps:

- Perform a soil test.
- Maintain soil pH at 6.0 to 6.5.
- Apply the recommended amount of fertilizer based on soil test results.
- Use a mulch (pinestraw, straw, decomposed sawdust, plastic, or newspapers) to conserve soil moisture.
- Supply plants with adequate amounts of water (approximately 1^{1/2} inches of water per week during fruiting).
- For temporary relief of blossom-end rot, spray plants that develop a calcium deficiency with a calcium solution (calcium nitrate or calcium chloride) to provide a quick source of calcium. Calcium chloride can burn plants if day temperatures exceed 85 to 90 degrees F. Spraying calcium is not a substitute for long-term calcium management. Proper irrigation and a balanced fertility program achieve this.



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Use chemicals only according to the directions on the label. Follow all directions, precautions, and restrictions that are listed.

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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