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# ASK A MASTER GARDENER

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## BLOSSOM-END ROT

*By Trish Grenfell, Placer County Master Gardener*

**Q** There are dark spots on the bottoms of most of my tomatoes. What is wrong and what should I do?

**A** Blossom-end rot is a disease that strikes tomatoes, peppers, watermelons, among others. It is not caused by a pest but instead by growing conditions. It affects the fruit of the plant only, unlike diseases such as tomato late blight which affects both foliage and fruit.

You can recognize blossom-end rot by a small sunken, wet area at or near the bottom of the tomato. This becomes darker and larger as the fruit develops, and it takes on a leathery look. On peppers, the spot will look tan. In tomatoes and watermelons, it becomes black.

A lack of calcium causes blossom-end rot. It could perhaps be that there's little calcium available in the soil—but most likely, the culprit is an irrigation issue which is hindering the plant's uptake of calcium.

To prevent blossom-end rot, have your soil tested before planting and if it shows to be lacking calcium, amend appropriately with lime or gypsum. And then choose a tomato variety not as susceptible to this disorder. Celebrity, Early Girl, and cherry-types are some of the good choices. Elongated, paste-type tomatoes (such as Roma) are very susceptible, as well as fast growing cultivars with extreme foliage and determinate types which set all their fruit at once.

Careful watering goes a long way to prevent blossom-end rot since water is vital to calcium uptake from the soil and transfer to the fruits during dry weather. Too much or too little water, or periods of drought then deluge, increases the chances your plants will develop the disease. Rule: do not allow soil to completely dry out when tomato fruit is growing; maintain moist, not wet soil conditions.

Incorporating compost in the soil will diminish soil moisture fluctuations. And it is good to mulch to conserve moisture, but don't use plastic which may overheat the soil.

Too much nitrogen fertilizer and a soil pH below 6.5 or above 8 will also negatively impact calcium uptake to fruit. In addition, try not to disturb the roots of the plants, including those small roots near the soil's surface when weeding. Damaging these small roots inhibits a plant's ability to draw up water and nutrients.

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