

## Trouble in the Garden: Blossom End Rot

This time of year, some tomatoes are just beginning to ripen, and peppers and eggplants are sizing up too! These are exciting times, after all the work of carefully prepping and planting and tending throughout the early growing season. Sometimes, however, there's an unsettling occurrence as these crops ripen.

You reach in to pick that first beautiful, rich-colored tomato, pepper, or eggplant, and your thumb sinks into a black hole in the bottom of the fruit! Oh no! What did you do wrong? Is the crop ruined? This common issue is not a disease or pest problem – it's a physiological problem that happens with certain environmental conditions.



Advanced blossom end rot on a tomato. Photo from Ohio State University Extension.

The issue is called blossom end rot, and it affects tomatoes, peppers, and eggplant. The damage on a tomato looks like a blackened, rotten spot on the bottom of the fruit. In less severe cases, the damage can look water-soaked or brown and shiny. On peppers and eggplants, the damaged area is often low on the fruit but not necessarily on the very bottom. The spot looks dry and leathery and either black or brown, with white around the edges.

Blossom end rot occurs when the plants' fruits are forming. Due to environmental conditions like too little, too much, or widely fluctuating amounts of water available, the plant is unable to access the required Calcium that it needs to form cell walls. Calcium is available to plants in a dissolved form, in water that reaches the roots. If there is too little water or if the roots are overly saturated with water, they can't absorb enough Calcium. Without that essential, cell-forming nutrient, the tissue on the blossom end of the fruit breaks down.



Blossom end rot evident on a green tomato fruit. Photo from the University of Illinois Extension.

Blossom end rot can occur due to lack of Calcium in the soil, so check your soil test to make sure this is not the issue. Adding Calcitic lime or ground eggshells to the garden can help add Calcium if there is a deficiency. Most commonly, enough Calcium exists in the soil; however, it isn't available to the plant due to too high, too low, or fluctuating moisture levels in the soil. Plants that had plenty of water in the spring often develop blossom end rot on their fruits, when summer dry spells occur.



Blossom end rot on peppers. Photo from New Mexico State University.

If you notice blossom end rot on your crop, remove the affected fruits, so the plant doesn't waste any more energy on them. It is safe to eat the good portion of the fruits – simply cut away the blackened area.

In most cases, blossom end rot affects the first fruits of the season, then disappears for the remainder of the harvest. To help ensure that your tomatoes, peppers, and eggplants receive enough Calcium and avoid blossom end rot, make sure these plants get at least 1" of water per week.