Blossom End Rot on Pepper and Tomato

Recognize the problem

Blossom end rot appears as an irregular patch at the fruit apex (tip) and may vary in colour from light green in early stages to brown and black as the fruit matures. As this patch increases in size, it becomes sunken so that the fruit has a flattened appearance at the affected end. The blackened patch varies in size from half inch to an inch or more in diameter. Affected fruits also suffer from a reduction in growth of new cells.

Vegetables that form large fruits, such as eggplants, peppers and (most often) tomatoes are particularly susceptible.

Blossom- end rot in tomato. (Photo by CABI)

Background

Blossom end rot is a physiological condition that arises as a result of adverse growing conditions rather than a pest or disease. It is caused by a lack of calcium in the fruit. This may be due to its unavailability in the soil or the unavailability of water to transport the calcium during fruit development. The lack of calcium in a plant cell reduces turgidity and cell membrane permeability, leading to swelling of the cells followed by leakage and destruction of the membrane structure, which is what causes the characteristic dark, sunken areas.

Blossom end rot in pepper. (Photo by Paul Bachi, University of Kentucky Research and Education Center, Bugwood.org)

Management

There is nothing you can do to save fruits once they show symptoms of blossom end rot, but you can prevent subsequent fruits from being affected by the following:

- Add calcium to the soil (Agrical) or vegetables (Calmax).
- Ensure adequate draining of beds.
- Provide adequate water to plants during the crop cycle, especially during fruit development.
- Maintain soil pH around 6.0 – 6.5.
- Use mulch to stabilize moisture and avoid overwatering.

The recommendations in this factsheet are relevant to: Grenada

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