



AVRDC - The World Vegetable Center

Fact Sheet

Pepper Disorders

Blossom End Rot

Found worldwide



Symptoms

This is a non-infectious disease that is associated with environmental conditions. It can affect all fruits but often is most often found on the first pepper fruit cluster.

At the earliest stage, water-soaked, tan patches appear near the blossom end of fruits. These patches develop into sunken, dry patches that are tan to black in color. An area up to half the fruit may be affected. Sometimes, the dead tissue may be invaded by secondary organisms, which causes a soft fruit rot. Internal blackening can also develop. The affected fruit ripens more quickly than unaffected fruit.

Conditions for Disease Development

The disorder develops when a rapidly enlarging fruit does not receive enough calcium for its cellular growth. This most often occurs when there are fluctuations in the water supply during rapid plant growth, particularly if long periods of dry weather are followed by excess availability of water.

Other factors that predispose a plant to blossom end rot are high humidity, damage to the roots, use of ammonium nitrate as nitrogen source, low potassium and calcium levels, high levels of magnesium and nitrogen in the soil, and high soil salinity.

How to Identify Blossom End Rot



Symptoms begin as a water-soaked brown spot on the blossom end (left), later developing into a black leathery rot

Control

Ensure steady plant growth and a constant soil moisture level through careful irrigation. Provide balanced fertilization and avoid root damage of young plants. Soil containing high humus will retain moisture during dry periods. Keep cultivation shallow to avoid destroying feeder roots. Use mulches that conserve soil moisture to avoid fluctuating moisture levels in the soil especially during the flowering and fruiting stages. Test soil for calcium levels; if deficient, apply dolomitic or high-

calcium limestone 2–4 months before planting. Apply foliar sprays of calcium chloride or calcium nitrate prior to onset of symptoms when fruit are small. Use cultivars that are less susceptible to the disorder than others.

For more information on the production of pepper and other vegetables, go to <www.avrdc.org>.