

Guidance note

Blossom End Rot Causes, prevention and cure



What is Blossom End Rot?

Blossom End Rot affects tomatoes and their relatives, eggplants and peppers. It shows as a sunken circular patch at the flower end of the fruit (the furthest from the stalk), which can grow to an inch or more in diameter.

Blossom End Rot usually occurs with the first or second flush of fruit, just when the plant is at maximum growth and has the highest need for good nutrition. It becomes less common as the plants age.

What Causes Blossom End Rot?

Blossom End Rot is caused by a lack of calcium in the soil. This may be due to;

- The soil is deficient in calcium
- The soil is too acid or alkaline, these both tie up calcium in the soil so it's not available to the plant
- Lack of water or moisture fluctuations can reduce calcium uptake into the plant. Even brief changes in the water supply can cause blossom-end rot
- The plant's roots have been damaged, restricting uptake of nutrients in the soil

- Too much nitrogen rich fertilizer causes the plant to grow so fast that the calcium can't move into the plant quickly enough.

Blossom End Rot is a disease that tomatoes are more susceptible to when grown in pots as they have limited root space.

Preventing Blossom End Rot

- Check the soil's pH: it should be between 6.0 and 6.8. Alkaline soils (pH range 7.0 to 8.5) can be acidified by adding organic material such as compost or manure. Acid soils (pH range 4.5 to 5.5) can be neutralised by adding lime. This is best done around 4 weeks before planting.
- Add bone meal to the soil before planting, according to the label instructions.
- If you grow in pots use fresh soil each year with plenty of organic matter to retain moisture.
- Select a small fruiting variety as these are less affected than large ones.
- Use mulch to keep the soil evenly moist, such as dried grass, decomposed sawdust or shredded paper.
- Water the plants daily and evenly, don't let them dry out.
- Use a fertilizer low in nitrogen but high in superphosphate, for example with NPK ratios 4-12-4 or 5-20-5.
- Some organic tips from different websites:
 - Add crumbled egg shells to your compost or bury them in your garden over time to help maintain the calcium levels.
 - Mix 3/4 cup powdered milk into soil around the planting hole. As you water throughout the season, the calcium in the milk will be available to your tomato plant.
 - Work Epsom Salt into the soil before planting. Apply one pound of Epsom Salt to each 1m x 2.5m area, or one cup of Epsom Salt per pot and work into the soil.
 - Water with a mixture of ½ cup of Epsom Salt dissolved in one gallon of water a couple of times during the growing season.

Treating Blossom End Rot

- As the causes of Blossom End Rot are physiological and not due to a pest or fungus, there are no sprays to treat it.
- Treatment isn't easy, it is much better to try and prevent Blossom End Rot by following the advice given above.
- Some organic tips from different websites:
 - Dissolve ½ cup of Epsom Salt into a gallon of water and slowly pour the entire gallon around the base of the tomato plant once per week.
 - Insert a couple of calcium carbonate tablets, or anti-acid tablets (Tums or the equivalent) at the base of each plant, where they will dissolve and make the calcium available to the plant in just a few hours.

For further advice, or assistance with soil testing, please contact Farmer Support at ANRD on 24724.