



Homegrown Horticulture

TIPS FOR SUCCESS IN YOUR OWN BACKYARD

Blossom End Rot

Blossom End Rot (BER) is a commonly occurring problem that is regularly encountered by home gardeners that grow tomatoes. While we most often see it in tomatoes, it is also possible to find it in other fruiting vegetables, such as peppers, eggplants, squash, pumpkins, and melons.

BER usually starts on younger fruit, appearing initially as light brown patches on the blossom end of the fruit. Over time, the patches darken and become sunken as the tissues die.

Contrary to popular belief, BER is a physiological disorder, meaning that it is caused by a problem in the plant itself. It is not actually caused by a pathogen (such as a bacterium or fungus), although it can lead to one taking advantage of the situation and taking up residence.

BER is caused by a calcium deficiency in specific cells in the fruit. Calcium is a plant nutrient that isn't terribly mobile within the plant, so there needs to be a consistent flow of it into the plant over time. If there is uneven or interrupted uptake of calcium by the plant from the soil, you will likely see BER. Uneven uptake is usually connected to growing conditions and/or soil factors. These include:

- **Hot/dry or drought conditions and a fluctuating water supply**
- Rapid plant growth that outstrips the ability of the plant to keep up with demand
- Saline soils that make it hard for the plant to take up water
- Root damage which limits the plant's ability to take up water and nutrients
- High levels of other nutrients in the soil (e.g., nitrogen or magnesium) which compete for uptake space in the plant "pipeline"
- High relative humidity that slows down the draw of water through the plant, from top to bottom



In theory (and in practice in some regions) a soil that is deficient in calcium can lead to high incidence of BER. However, if you are growing in soil (not soilless media) on the Canadian Prairies, there will be plenty of calcium. The best way to prevent BER is to make sure that plants maintain healthy, even growth and have a steady uptake of water. Avoid any practice that damages roots. Use practices that conserve moisture, such as mulch, as this will even out water supply.

If you determine that calcium is deficient through testing, you can apply calcium-rich fertilizers or amendments to the soil, or to the foliage (as appropriate).

