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The Grapevine

Epsom Salt Myth

Picture this in your head. Your garden is growing, the tomatoes, squash and peppers are green, lush and doing great. You have had blooms for awhile and those first fruits have set and are slowly growing. You check your tomatoes a few days later after a period of hot days with low humidity and notice that the biggest tomato has a brownish black lesion on the bottom. Your garden has been invaded by Blossom End Rot. A quick Google search tells you the best cure for Blossom End Rot is Epsom salts so you rush to the store to buy some. You have to save your tomatoes!!!! This is where I'm going to stop the story because while Google might tell you the Epsom Salts will stop your Blossom End Rot this is one time where Google doesn't know best. The Epsom Salt Myth needs to end here.

Blossom End Rot or BER is a common disorder found on tomatoes and it is more common in certain varieties of tomatoes than others. While BER is most commonly found on tomatoes it can also impact peppers, squash and other vegetables in the garden. Unlike other issues commonly found in the garden BER isn't actually caused by a disease but rather caused by a lack of calcium when the fruit is forming. This lack of calcium in the fruit usually isn't caused by a lack of calcium in the soil, our soils were formed from limestone which is composed of calcium as one of its major components. This lack of calcium can come from a couple of sources.

- The first issue could be that the top of the tomato out grew the root system during the early growing season and while it's cooler the root system can keep up. Once we hit the hot days of summer the root system can't supply the plant with enough water and calcium to keep up. The plant then sends the water, and the calcium it carries, to the leaves instead of the fruit causing BER. Heavy fertilization in the spring can cause this issue or make it worse.
- The second cause could be disturbance of the plant's roots leading to a lack of water being taken up by the plant. When you are weeding in the garden, try not to cultivate or use your hoe too deep in the ground near the plants to avoid damaging the roots.
- The third cause and most likely is inconsistent watering. Keep the soil moist but not water logged. Sometimes we get heavy rain from thunderstorms and there is nothing we can do about it but to just keep a consistent watering schedule and control what we can. Mulching around the plants can help to control the moisture levels in the soil and prevent weeds which lessens the amount of work you have to do.

There is no benefit to adding Epsom salts to your tomatoes. Epsom salts contain Magnesium Sulfate and have no calcium to help prevent Blossom End Rot. There usually also is no benefit to adding additional calcium to your soil in the form of Tums or Rolaids. If you are concerned about your soil and the calcium level the best bet is to get a soil test or apply gypsum to your garden to add additional calcium. The best way to avoid BER is to water consistently, wait till fruit is setting on your plants to fertilize, pick varieties that are less likely to get BER and avoid damaging the roots of the plants. Even if you do have issues with Blossom End rot in your garden, remember that it will only last a short while (as painful as that can be) and will soon be gone from your garden for another year.

The Epsom Salt Myth is one of the most common gardening stories that I hear in the gardening world and unfortunately is one that seems to linger year in and year out. Remember to keep a consistent soil moisture level and your chances of Blossom End Rot will go down. If you keep a garden journal write down what varieties you had issues with and try not to plant them in the future. If you hear any of your gardening friends talk about Epsom salts and Blossom end rot, share these tips. If you have any issues please feel free to contact me either by phone or email. I would love to get out and tour your garden. Happy Growing and I hope your garden is thriving.

Insect of the Week-

I've had the joy of spotting several of these beautiful white lined sphinx moths, also called "hummingbird moths" over the last few weeks. These moths are one of a gardener's great dilemmas. On one hand the moths are great pollinators and are fun to watch in the garden, on the other the tomato hornworm that turns into the moth's are a voracious eater of our gardens and other plant material. "Hummingbird moths" are a collective name for many members of the sphinx moth family. The moths can range from 1" in size up to several inches and the colors range from the clear to almost black in color depending on the species. The larvae are typically green in color which unfortunately allows them to blend in well with our vegetable and other plants. Often the first sign they are there are branches stripped clean of leaves. Hornworms tend to be large caterpillars with a distinctive "horn" on their head. While the hornworms are a pain, chemical treatment isn't necessary as they are easy to pick off and either kill or move to a plant that can handle being eaten upon. In many instances, parasitic wasps have laid eggs on the caterpillars and will ultimately feed upon them.

Reminders-

- Renovate your strawberry beds after they have finished producing for the season. For more information on renovating strawberry beds check here.
- Check your evergreen plants for bagworm larva and spray in late June if necessary. For more information on controlling bagworms click here.
- The Great Plains Bumble Bee Atlas is a new region-wide community science project aimed at tracking and conserving bumble bees native to North Dakota, South Dakota, and Kansas. Community science means anyone can get involved, no experience is necessary. Click on the link highlighted above and choose "Events."
- Thin excessive fruit on fruit trees to encourage larger fruit and reduce the chances of breaking branches due to fruit load. The distances listed are the recommendations, try to keep fruit to these distances apart on each branch. Cherries do not need thinned. Thin fruit according to species below:
    - Apples and Pears- 6 to 8" apart. Pick the nicest fruit in the cluster and remove the rest
    - Peaches- 6-8" apart. Try for an average of 7" apart
    - Plums and Prunes- 4-5" apart
    - Apricots- 2-4" apart

Upcoming Events

- *June 1, 2022: Organic Pest Management for Vegetable Gardens*
  The ideal weather conditions for peak vegetable crop production will also generate a rise in garden pests, weeds, and disease. As these pests plague the garden, even the most avid organic grower may become disheartened. Join Zac Hoppenstedt, Johnson County Horticulture Extension Agent, to learn about organic controls available to the home gardener, as well as strategic approaches to help prevent garden problems. For more information on KSRE Garden Hour click here.
- *July 6, 2022: Growing Culinary Mushrooms at Home*
  Mushrooms can be a fun and tasty addition to your garden and dinner table. Pam Paulsen, Reno County Horticulture Extension Agent, will cover some of the most commonly cultivated mushroom species and walk through the steps of how to grow them successfully at home. The KSRE Garden hour sessions are held via Zoom starting at noon. For more information or to register click here.