



CROW WING COUNTY MASTER GARDENER PROGRAM

Ask the Master Gardener

AUGUST 2016 COLUMN

Dear Master Gardener:

With all of the rain we have had, my tomatoes have black spots and they are cracking. What is it and is there anything I can do?

According to the University of Minnesota, blossom-end rot is one of the most common tomato disorders. Affected fruit have a tan to black flattened spot at the blossom end of the fruit. Secondary fungi and bacteria can enter the blossom end rot area, resulting in further decay of the fruit. Blossom-end rot is caused by a calcium deficiency in the tomato plant. Although blossom end rot means that the plant does not have enough calcium within the developing fruit, it does not mean that there is a lack of calcium in the soil. Extreme fluctuation in moisture can reduce the availability of calcium salts needed by the plant. Heavy applications of nitrogen fertilizers and abundant rain cause rapid and luxuriant plant growth and predispose the fruit to blossom-end rot, especially during periods of dry, hot weather.

Blossom-end rot can be minimized by maintaining a uniform supply of moisture through regular watering and soil mulches, applying fertilizer according to the results of a soil test, and avoiding root injury by not cultivating within one foot of the base of the plant.

Growth cracks result from extremely rapid fruit growth. This may be brought on by periods of abundant rain and high temperatures, or can occur when water is suddenly available to the plant through rain or irrigation after a period of drought. Cracks may radiate from the stem end of the fruit or may encircle the fruit. Secondary fungi and bacteria that further rot the fruit often invade cracks. Maintaining even moisture by watering regularly and mulching the soil around the tomato plant can help reduce growth cracks.

To manage tomato diseases, keep tomato leaves as dry as possible. Use drip irrigation or soaker hoses. Water in the morning so leaves dry quickly in the sun. Completely cover the soil around the tomato plant with mulch. Stake or cage plants and space plants so air flows between the plants. Check your tomato plants once a week looking for leaf spots on the lower leaves. Remove any infected leaves and rotten fruit from the garden. Never remove more than 50% of a tomato plant's leaves.

At the end of the season, remove or bury your tomato plants. Infected plant material can be taken to a municipal compost facility or placed in a home compost pile that gets hot.

If possible move tomatoes to a new location every year; rotating between 3-4 locations before returning to the original garden spot. Consider planting tomatoes in pots for one year. Remember some blight is ok. We do not grow tomatoes for their pretty leaves. One study showed tomatoes could

lose 25-50% of their leaves with no yield loss. Use the management practices above to reduce blight to a level that does not affect yield.

Dear Master Gardener:

My Asiatic lilies have reddish-brown leaf spots and the bottom leaves are turning black and falling off. What is this and what should I do about it?

Botrytis blight, a fungal disease, causes reddish-brown leaf spots and is often the result of damp weather or evening watering. Water early in the day, or water at the base of the plant rather than overhead. Adequate spacing between clusters of lilies also promotes good air circulation and may help prevent disease. Botrytis is spread by spores located on the undersides of the leaves, on the ground, and in old stems. The spores are spread by wind and rain or water splashing, and are encouraged by damp, wet and humid conditions. Often botrytis starts after frost, hail or other exterior damage is experienced by the plant, or during extended periods of rain and damp weather. Once it starts, and if favorable conditions persist, it moves like wildfire through the lilies.

Dear Master Gardener:

I have heard mixed messages about using Epsom salts in the garden. I have heard that Epsom salts will make the soil more acidic and add nutrients to the soil. Are there really any benefits to using it in my gardens?

Epsom salts are a simple salt made up of magnesium and sulfur. They can benefit our gardens, but not always in ways TV personalities might have us believe. Epsom salts have been reported to make soils more acidic, but there is little evidence to support this claim. Epsom salts are considered neutral salts; therefore they will have little effect on the pH of soil.

According to Jeff Gilman, author of [The Truth about Garden Remedies](#) and former professor in the horticultural science department at the University of Minnesota, Epsom salts are a way to deliver two nutrients, sulphur and magnesium, to a plant that is low in either of these. Generally, Epsom salts are not harmful to add to your plants, but they are usually unnecessary. In most cases where there is little magnesium in the soil, there is also an acid pH and if this is the case, adding dolomitic lime is more appropriate than Epsom salts as a way to add magnesium. If you think your soil has a nutrient deficiency, it is best to have your soil tested to find out why the deficiency is occurring. This can be done through the University of Minnesota Extension. Information about soil testing can be found at <http://soiltest.cfans.umn.edu/>. According to Dr. Gilman, "By applying something, such as Epsom salts, without testing your soil, you are simply rolling the dice to find the cure. You may be right, but you may make things worse."

Dear Master Gardener:

My Annabelle hydrangeas are drooping on the ground from the last storm. Is there a way to get the stems and flowers more upright?

The blooms on Annabelle hydrangeas are large, so they can droop to the ground after a rain. To solve the immediate problem, you could try staking the drooping stems with bamboo stakes. In the future you could try using a peony hoop to prevent the problem, but this would need to be done in the spring when the plant is small enough to place the peony hoop without damaging the plant. Next spring make

sure to prune stems back to the ground to help promote stem vigor. Spring pruning results in a fuller, stronger plant that is less likely to flop under the weight of its large flowers.

Dear Master Gardener:

I have been attending your spring Garden Expo for the past few years and was disappointed that there wasn't one this year. Will you be bringing it back in the future?

Great news! Mark your calendar for Saturday, April 1, 2017 for the next garden expo, which will be held at Brainerd High School. Once again, there will be many garden seminars from which to choose and many vendors of garden-related items.

August Garden Tips

- The best time to start a new lawn from seed or over-seed a thin lawn is from mid-August. Wait until nights are cooler, it will be easier to keep seedlings moist. If you plant seeds, don't spray herbicide until next spring.
- Keep picking zucchini, cucumbers snap beans and other vegetables from your garden even if they are past their prime. Plants remain more productive, and there will be less rotting fruit around to attract pests.
- Continue to dead-head flowers so they don't mature and set seeds. Removing faded flowers helps keep annuals blooming longer and can result in secondary blooms on some perennials.
- Divide and replant perennials that are overgrown and no longer bloom well. Discard the central part of a clump that has grown woody, and then plant the outer portions. There's time for the plant to reestablish before cold weather arrives.
- Manage your compost pile by keeping the pile moist and turning it frequently to maintain the aerobic environment (with oxygen) and to speed up the breakdown process.
- Raise the height of lawn mower blades to 3 inches. As heat builds in the summer the taller grass protects the roots and permits deeper root development.

University of Minnesota Extension Master Gardeners are trained and certified volunteers for the University of Minnesota Extension Service. All information given in this column is based on university research. To ask a question, call the Master Gardener Help Line at 218-454-GROW (4769) and leave a recorded message. A Master Gardener will return your call.

