

Dear Abner

The Midlands' Gardening Advice Column

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“Dear Abner” is written and compiled by Don McInnes, Ph.D. Dr. McInnes has three degrees in Biology, and answers questions on horticulture, landscaping, gardening and pest control for Clemson Extension. He is available for private consulting and landscape design through his company, Southeastern Environmental Design. He currently chairs the City of Columbia’s Tree and Appearance Commission.

If you have questions about your garden, e-mail them to Abner at SeEnvDes@aol.com. Questions are selected for monthly web publication based on their widespread interest and seasonal significance to Midlands’ gardeners. Unfortunately, Abner is unable to provide individual answers to questions.

Q: *My tomatoes are growing well, flowering and beginning to produce fruit, but the fruit are developing black, rotten areas at the bottom. What’s wrong with them and what can I do? --T.J., Columbia*

A: You’re experiencing the most common of tomato ailments, blossom-end rot. The fruit develops from the base of the flower, so the bottom end of the tomato is where the petals used to be attached—the blossom end. The bottoms of tomatoes turn tan and then black and rotten in response to an internal imbalance or deficiency of calcium. Calcium may be present in sufficient quantities in your garden soil, but the plant may not be able to take up enough of it to prevent a deficiency in the growing fruit.

Practically speaking, blossom-end rot is almost always a soil moisture problem. It develops when tomato plants experience variable soil moisture conditions—wet, dry, wet, dry. Try to even out the soil moisture. This may mean watering more often, or at least checking to see if your plants need watering more often. Tomatoes may need watering every day in sunny, breezy weather, depending on your soil type. Container grown plants may need watering even more often. Mulching can also help, by retarding evaporation from the soil and moderating soil temperature extremes.

It may help too to make sure your tomatoes have adequate access to calcium. Lime, wood ash and gypsum are good sources of calcium. Lime and ashes, however, can raise the soil pH (increasing the alkalinity), so use them cautiously (by following the recommendations of a soil analysis). Gypsum will not alter the soil pH. There are also foliar sprays that are rich in calcium. Foliar sprays might be worthwhile in a case like yours, if you have developing fruit that have not yet developed any symptoms. The sprays likely get calcium into the fruit faster than material applied to the soil, but evening out the soil moisture is more important.

There are a few other conditions which can promote the development of blossom-end rot: acidic soils, high relative humidity, high salt content, rapid growth (usually following fertilizing with too much nitrogen). So,

follow soil test recommendations, don't crowd your plants, don't water in the evening, and make sure container plants drain freely.

Remove fruit at the first signs of blossom-end rot and correct the conditions that foster it, especially variable soil moisture. Let the plant put its resources toward unblemished fruit.

One last word on blossom-end rot: tomatoes aren't the only susceptible home garden crop. Bell peppers and members of the squash and melon family can also experience fruit losses from the disorder.

Q: *My squash plants' leaves are losing their nice green color, and there are tiny moving specks on them. Some of the most damaged leaves look wilted. Will Daconil help? –R.H., Blythewood*

A: Daconil is the name of a well-known garden and landscape fungicide. I don't think that will help in this case. I suspect you're not dealing with a fungal disease, but a bug problem. I think the tiny specks are mites. You should be able to count eight legs on them, but most mites are so small that it may be difficult to do so without the magnification of a good hand lens or microscope. Spider mites are about the size of a period at the end of a sentence, or perhaps a speck of ground pepper—they're really small. They are so small that they damage individual cells of their host plant.

Cucurbits, like squash and melons, can be quite susceptible to mite outbreaks during hot, dry weather. Usually experienced gardeners will try to minimize the time plants' leaves are wet to avoid diseases, but if you know you've got a mite problem, wetting the leaves frequently with a spray from the hose can help.

Many garden insecticides will be labeled for mite control, but there is a good reason to make these the response of last resort. Mites are usually kept in check by natural enemies, and these are usually slower to rebound after insecticide application than are the mites. In fact, most mite outbreaks I hear about occur after liberal use of garden insecticides. I recommend trying to achieve control of your mite infestation by using an insecticidal soap or oil. Not only are these less toxic to you, they will have less impact on non-target organisms, including the mites' natural enemies and the pollinators we depend on to fertilize our crops.