Tow-Maters

Upside-down, container grown, raised beds, or field grown; tomatoes can be grown just about anywhere. The million-dollar question is how well can I grow them in each of these situations. For the past 3 weeks, I have had many calls about tomatoes. Today we’re going to take a few moments and answer some basic questions about growing tomatoes directly from you, the consumer.

Q: My tomatoes are almost ripe. Then they turn black and rot on the bottom! What can I do?

A: This is called ‘Blossom End Rot’ or BER for short. BER is a direct result of a calcium deficiency in the base of the fruit as it is maturing. BER usually happens in sandy soils with a low pH and after a time of extreme rains or extreme drought. To reduce the occurrence of BER you can:

• Lime – Soil for tomatoes should be at a pH of 6.5 to 6.7. In our area, the average soil pH is anywhere from 4.5 to 5.5. When the pH is low, calcium is unavailable to the plant and BER will develop. If you have not added lime in the past few years, or not had a soil test you can always send one to the NCDA&CS Agronomic Division, 4300 Reedy Creek Road, Raleigh, N. C. 27607-6465 for analysis and recommendations.

• Fertilize Properly – Too much fertilizer at one time can cause BER. Make sure to follow all recommendations from your NCDA&CA soil sample report.

• Mulch – Mulching around your plants will help them to conserve moisture. Too much water or too little water can increase the possibility of BER.

• Irrigate – During fruiting, tomatoes require about 1.5 inches of water per week. This can be supplied by rainwater or irrigation.

• Spray Calcium – As a last resort, there are calcium sprays available on the market. Remember that unless you change the underlying cause (pH or water supply) the calcium sprays will do nothing.
Q: I planted one of those upside-down tomato plants, and it’s not doing anything! The stem is all bumpy and looks like it has a disease and the few tomatoes that are on the plant are turning black on the bottom. Help!

A: Although it looks pretty and is a neat idea, turning plants upside-down is a recipe for failure. The law of nature dictates that roots go down (gravitropism) and the stem goes up towards the light (phototropism). So now that you have turned the tomato plant upside-down and planted it at the base of this hanging bag of soil, you are going to have a few problems.

Because roots grow down and you have planted the tomato at the base of the planter, you have essentially given it NO soil to expand in. Roots will NOT grow up into the soil even if there are nutrients and water available. This causes a stress response in the form of the production of those ‘bumps’ on the stem of the plant. The bumps are actually roots trying to form to gain more access to water and nutrients.

When your plant finally produces a few tomatoes, you may start to develop Blossom End Rot or BER as we discussed in Question 1. In this case, it is caused by the lack of nutrients and water available to the plant. The root zone is so limited that any nutrients that were available are quickly depleted.

Q: My tomatoes are out in the field. I have done my soil sample, limed my soil, and fertilized as was recommended by my soil sample report from the NCDA&CS, but I just don’t have many tomatoes forming. The plants look healthy, but I have very few tomatoes. What’s happening?

A: There is significant research based evidence indicating that temperatures above 90 degrees Fahrenheit during the day and above 70 degrees Fahrenheit at night will reduce fruit set dramatically. Particular emphasis is placed on the nighttime temperatures limiting fruit set the most. The last four weeks, or more, of weather that we have had, temperatures have routinely been above 70 degrees at night and 90 degrees during the day. There is no quick fix for this problem aside from saying a little prayer and doing your rain dance, it is up to Mother Nature.

As always, the best defense against any problem in your garden is good plant health. Ensure the proper pH, water, fertilize, and mulch to promote healthy plants. If you have any questions, comments, or concerns feel free to contact me, Kerrie Roach, horticultural Extension agent, at North Carolina Cooperative Extension, Robeson County Center, by E-mail at Kerrie_Roach@ncsu.edu or call me at 910-671-3276. To learn more about Extension visit North Carolina Cooperative Extension, Robeson County Center’s website at Robeson.ces.ncsu.edu.