I thoroughly enjoy Nebraska Educational Television’s *Backyard Farmer* program. At the beginning of each show, host Kim Todd introduces the panel of experts. I always chuckle when she introduces the plant pathologist. She often comments, “Here to inform us this evening on the latest rots and spots is our plant pathologist,” and then she introduces the individual by name.

I firmly believe rots and spots is an apropos description of a plant pathologist’s work. Personally, I am more confident as a horticulturist than as a plant pathologist, yet many people still stop by my office with questions concerning plant samples loaded with rots and spots. I discovered long ago that whether it is foliage or fruit, the common symptoms of diseased plant tissue are rotting and spotting. Knowing the exact malady and how to treat can be a challenge for me. I do admit I rely frequently on the expertise of UNL’s plant pathology department.

Some rots and spots, however, are so commonplace that even I have become reasonably confident identifying them. Such is the case with two culprits showing up in my office on nearly a daily basis. One is even named a rot; the other a spot.

With the tomato harvest beginning, people have been stopping by my office with an assortment of tomato problems. Tomato plants seem be magnets to an array of fungal and bacterial diseases. Interestingly, the rot I have been witnessing is actually a disorder rather than a disease. Clinically, it is called blossom end rot. The fruit of a tomato plant has two ends. The one end attached to the plant is the stem end; the opposite end is the blossom end. The blossom end is where the tomato fruit has its beginning. After the ovary of the tomato blossom is fertilized, it begins to grow into the fruit.

Often, occurring early in the season, the blossom end of a developing tomato begins to shrink. The shrinking surface becomes leathery and turns dark brown to black in color. This area often molds, and soft rot and decay begins. Although rot and decay are secondary to the problem, a temporary shortage of available calcium to the fruit causes the condition. Frequently, this disorder is aggravated by soil moisture fluctuations. To reduce the incidence of blossom end rot, one should provide even moisture and avoid excessive nitrogen fertilizer applications. One interesting note — although the appearance of
these tomatoes is extremely unappetizing, if one were hungry enough, one could cut away the rotted end. The remaining fruit is safe to eat.

Bacterial spot is another common disease of tomatoes. The disease produces raised, dark, scabby lesions on the fruit. Generally, cool weather with high humidity, heavy dew, or frequent rainfall promotes the spread of bacterial spot. The pathogen for this disease can overwinter in the garden on infected plant debris. Crop rotation and sanitation to reduce the current season’s fruit from exposure to last season’s inoculums is important to prevent bacterial spot. The use of a copper-based fungicide also helps to prevent the disease but will do little for cure. As before, the good news is the problem is cosmetic. Cut away the spots, and the remaining fruit is edible.

I am convinced there are no guarantees for one hundred percent control of tomato diseases. I am also convinced that if one were to tune in *Backyard Farmer*, one would probably hear a plant pathologist say, “Good management and cultural practices are the best prevention to keep rots and spots at bay.”