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To: Rains County Leader

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Tomato Problems

Many home and commercial gardeners have been calling here lately about problems with tomato plants. Tomatoes are a very popular garden plant in this area and in most cases grow very well. Listed below are some question that I have been receiving and the answers that follow.

Q. What are the brown rotten spots on the bottom of my tomatoes?

A. Blossom end rot is a physiological disorder of tomato that can appear on fruits at any time in their development, but most commonly appears when fruits are one-third to one-half grown. The initial symptoms are water-soaked spots on the blossom end of the fruit. These spots later enlarge and become black. Secondary infection by other decay causing organisms usually follows. The cause of this disorder is considered to be calcium deficiency in the developing fruit. Extreme fluctuations in moisture, root pruning and excessive nitrogen fertilization can also result in blossom end rot.

Best means of control is to maintain a uniform supply of moisture through irrigation and soil mulches. Calcium chloride can be used as a spray for control under some conditions. Application of lime, calcium or gypsum prior to planting may help. Liquid fertilization using calcium nitrate can be used for small plots.

Q. What causes the yellow specks/spots on my tomatoes?

A. This problem is called cloudy spot. It is caused by stink bugs attacking the fruit. Fruit are covered with white or yellow flecks and patches that occur in the tissue just beneath the skin. Peeling fruit in the affected areas reveals white corky (not red) tissue.

Control: Stink bugs often attack tomatoes from surrounding weeds. Feeding on young fruit is barely noticeable, but improper ripening and blemishes develop as fruit matures. Use a recommended insecticidal program to control stink bugs.

Q. What causes my tomato plant to start dying on one side of the plant but not the others?

A. **Fusarium Wilt** (fungus - *Fusarium oxysporum* f. sp. *lycopersici*): The first indication of disease in small plants is a drooping and wilting of lower leaves with a loss of green color followed by wilting and death of the plant. Often leaves on only one side of the stem turn yellow at first; yellowed leaves gradually wilt and die. The stem of wilted plants shows no soft decay, but when cut lengthwise, the woody part next to the green outer cortex shows a dark brown discoloration of the water conducting vessels. The fungus is soil borne, passes upward into the xylem of the stem. Blocking of the water-conducting vessels is the main reason for wilting. The fungus is most active at temperatures between 80 and 90 degrees F., seldom being a serious problem where soil and air temperatures remain low during most of the growing season. Control can be obtained by growing plants in disease-free soil, using disease-free transplants, and growing only resistant varieties.

Q. What causes my tomato plant to start wilting from the bottom up and then all the sudden the entire plant wilts and dies.

A. Rapid wilting of lower leaves followed by wilting and decline of the entire plant signals **bacterial wilt**. The leaves do not change color. A slimy, gray substance oozes from cut stems. Bacteria may infect plants from the soil or from insect vectors. Proper field sanitation and crop rotation are effective control measures. Use of disease-free transplants is important.

If you are having problems with your tomatoes feel free to give me a call. You can also go to the following website which is an excellent resource <http://aggie-horticulture.tamu.edu/tomatoproblemsolver/index.html>.