Yard and Garden 08-06-2011 Ted Griess / Extension Horticulture Assistant

Problems in the tomato garden cannot always be controlled. The good news is some problems are rarely permanent.

One of these temporary tomato dilemmas has crossed my desk this past week in the form of a question, "Why aren't my tomato plants producing more fruit?" — a question I hear repeatedly. Perhaps, in spite of all the attention and tender loving care you have given your tomato plants, you, too, are experiencing a similar predicament. Because of this problem reoccurring, I thought it worthy to share with you some valuable information I garnered from a great website called *Tomato*



dirt devoted entirely to tomatoes.

Chances are your plants have been the victim of blossom drop.

Normally, when a tomato blossom pollinates, it then develops a tomato. Sadly, sometimes a healthy tomato plant blooms, but its blossoms drop and no fruit develops.

This is called blossom drop. Generally, five conditions can lead to this malady.

The first condition can be extreme temperatures. Interestingly, too cool or too hot can be the culprit. Cool nights that are consistently below 55°F or hot days consistently above 90° F with nights consistently above 75° F can cause the tomato plant to temporarily abandon fruit production and direct its efforts to survival. Too cool is what we experienced for the most of spring and early summer. Now, the weather has been too hot. A tomato's optimum daytime temperature range for setting fruit is between 70°F to 85°F.

Another contributing factor is poor pollination. Insects are not active in the garden when temperatures are too hot or too cold. As a result, fewer blossoms are

pollinated. In addition, without proper humidity (40% to 70%) pollen has difficulty releasing or sticking.

Stress is another factor that causes blossom drop inhibiting fruit set. Knowing that tomatoes have deep root systems, one can eliminate stress by watering deeply. Watering shallowly develops shallow root systems, thus weakening the plants and resulting in poor blossom set.

Improper fertilizing can contribute to poor fruit set. Although tomatoes are heavy feeders, too much fertilizer rich in nitrogen encourages vegetative growth resulting in fewer blossoms.

Lastly, as odd as it may sound, too many blossoms on a plant can cause them to compete for food resulting in many not surviving.

While one can do little to change temperature or humidity, a few steps can be taken to help fruit set. Avoid planting tomatoes too early in the season. When blossoms are present, mimic the wind and insects by gently shaking the plants to spread the pollen. Water deeply giving the plants one to three inches of water per week. Avoid fertilizing with excess nitrogen by using a balanced fertilizer, perhaps one designed specifically for tomatoes. Count your blessings; if your plant has too many blossoms, the survival of the fittest rule usually prevails.

As I began, such a problem is usually temporary. I can reasonably assure you that in late September or early October; you will have abundant tomatoes clinging to your plants. Furthermore, the weatherman will be forecasting frost, and rather than hearing you ask, "Why aren't my tomato plants producing more fruit," you will likely be asking, "How can I save my bountiful tomato crop from the frost?"