

ASK A MASTER GARDENER: Tomato Treasures

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Pamela M. Geisel

Tomatoes are a treat of nature. They are nutritious, beautiful, versatile and relatively easy to grow in your own garden. As a matter of fact, tomatoes are the most popular crop for vegetable gardens. In surveys conducted by the vegetable crop industry 99% of all summer vegetable gardens have tomatoes being grown in them. It is no wonder then, that there are so many questions on tomato problems. The problems range from insect pests such as tomato hornworms, snails or aphids or cultural problems such as fruit cracking, catfacing, yellow shoulder, or leaf rolling.

What is really frustrating is when you see the thousands of acres of beautiful tomatoes growing out in the middle of the most hot, hostile environment on the westside of the San Joaquin Valley, yet in your garden where they get all sorts of tender loving care they struggle. Why are theirs so beautiful and ours not? There are a couple of key reasons.

The first is variety. These are either processing or fresh market tomatoes and the varieties are adapted to higher summer temperatures. The most common fresh market varieties grown there are Shady Lady, Sunbrite, Merced and Sonnet. The home gardener would find these varieties difficult to locate because they are grown just for the commercial market. If you want to grow perfect tomatoes you need to check out varieties that are adapted to higher summer temperatures, those that are crack resistant as well as disease resistant. By selecting varieties well adapted to the area, you can avoid the common problems such as cracking, catfacing, solar yellowing and yellow shoulder. Most of these problems are physiological and are caused by environmental conditions. For example, solar yellowing or yellow shoulder occurs because the red pigment that turns the fruit red doesn't form well when temperatures are over 86°F. When the tops of the fruit are exposed to high light intensity it tends to increase the degree of yellow shoulder and solar yellowing. The fruit will not turn totally red and if you leave the fruit expecting that to happen, it will just rot. To prevent solar yellowing, yellow shoulder and sunburn, maintain good soil fertility early on in the season with adequate nitrogen. This will improve leaf cover and shade the fruit more. Where intense light conditions exist, covering the plant with a light shade cloth or screening material will also help.

Another problem that shows up this time of year is fruit cracking and catfacing. This is where the fruit develops circular concentric cracks around the stems or cracks radiating outward. What causes this is that during periods of very fast growth with high temperatures and soil moisture levels, wide fluctuations in soil moisture content or heavy irrigation following a dry period, along with wide differences in day and night temperatures. Again some varieties are more prone to this disorder so choose those that are listed as crack resistant. Keep your soil evenly moist and avoid alternating dry/wet periods. Apply a 3-4 inch layer of organic mulch such as compost to moderate soil temperatures and soil moisture fluctuations.

If you want to know which varieties to plant in your neighborhood, visit with local Master Gardeners who are always happy to share their gardening advice. The Mariposa County Master

Gardeners are available to answer all your gardening questions by calling (209) 966-2417. You can also email them at mgmariposa@ucdavis.edu.

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