Tomato Success: in the desert?

By Sally Logan-University of California Master Gardener

We have talked to so many desert gardeners, who have the same complaint;
when the real heat comes to the desert, their tomatoes shut down along with some of the restaurants and other businesses for the summer months June through August?!

The questions go something like this:

1. Why do they not set their fruit (tomatoes are a fruit)?
2. How can I keep them going through the hot (temps to 115 degrees) summer months?
3. Most literature on tomatoes echo the same recommendation; plant in 'full sun'; a place where the tomatoes will get 10-12 hours a day; will this really work in the desert?
4. How much do I need to water my tomatoes?
5. How often do I need to water my tomatoes?
6. Are there specific types of tomato plants that do better in the desert?
7. Why do they continue to bloom, but drop their buds?

Oh, and the list goes on with a somewhat different take depending on the garden location, soil, experience of the gardener, new arrival to the desert, etc., etc.

So, how do we have "success" with our tomatoes and are there some special tips that can help desert gardeners to continue to have "fruit set", during the hottest months? We explored these questions and used several resources; including the University of California division of Agriculture and Natural Resources catalog: http://anrcatalog.ucdavis.edu; http://plantfinder.sunset.com/plant-home.jsp, and some home grown advice from our own Master Gardener lecture attendees, who have been highly successful in their tomato harvest for many years.

From Publication 8159 from UCANR catalog website comes a division of 'climate zones' to aid us in choosing A, B, or zone C for a climate zone. Zone B includes the inland valleys and high and low deserts, that's us!
Also there is a review of 'disease resistant' plants in chart, along with the particular climate zone that the plants will produce best in. The authors of publication 8159, remind us that resistance is not immunity.

Before looking through the chart for our best choices for desert planting, we are also informed there are two types of tomatoes based on their growth habit. "Determinate" tomato plants have a bushy growth pattern, grow to 3-5 feet and bear most of their fruit in the first 4-6 weeks and then begin to decline. Tomatoes for canning and that ripen early are usually determinate in their growth pattern.

"Indeterminate" varieties of tomato plants grow more like vines, not bushes, and these plants will continue to produce fruit until stopped by either disease or frost. This could mean for the desert gardener that the indeterminate varieties could very well continue to give us product through the winter season until desert temperatures begin to drop to 40 degrees or below in some areas.
So, a recommendation for desert gardeners might be to choose some of each growing pattern, both determinate and indeterminate; having early product and canning fruit, as well as some varieties that will sustain the local 'green thumb' person thru most of the winter season in the desert.

So for our desert gardens; one might choose from the chart; the Super Sweet 100 Hybrid, which is a cherry tomato variety with a Zone B climate, indeterminate type (produces well into winter season here) and matures in 65 days. This variety grows in grape-like clusters and is reputed to be very sweet.

For the container gardener, there are several choices, of which two; the 'Patio' Hybrid which has extremely compact growth and ' Toy Boy' which is very early to mature. Both of these container varieties are determinate, which means bushy, early production of fruit, but not long growing into the winter season.

There are a larger number of varieties in the standard group; 'Champion' hybrid is an indeterminate with large fruit with maturity at 62 days in climate zones, A, B & C, and is considered a 'winter crop' in inland valleys.
Wanting to include some color variety, the green tomato called 'Green Zebra' and the yellow tomato called 'Lemon Boy' have not yet been evaluated for climate zone, as well as their resistance to disease, but they mature in 72-78 days and might be worth trying, if you are fond of different flavors and colors in your vegetables.

These are tips on choosing the best variety for the desert and just another tip from one of our Master Gardener lectures; two very experienced desert gardeners say that they always use 'shade cloth' on their tomatoes as temperatures climb above 100 degrees, and as temperatures and microclimates dictate, water as needed, sometimes daily. In Croatia, they call them, 'Paradisa', and indeed, this

favorite fruit of the vegetable garden can be ‘paradise’ to consume almost year round, with the right variety and the proper care.

*Publication 8159, ‘Growing Tomatoes in the Home Garden’; Dennis R. Pittenger, UC Cooperative Extension Area Horticulture Advisor; Nancy F. Garrison, former UC Cooperative Extension Horticultural Advisor, Santa Clara County; Pamela M. Geisel , former UC Cooperative Extension Landscape and Turf Management Farm Advisor, Fresno County and Statewide Master Gardener Coordinator; Carolyn L. Unruh, staff writer, UC Cooperative Extension, Fresno County