NEWSPAPER ARTICLES

Caring for Citrus Trees

by Carol Collar, UCCE Master Gardener

Do you have citrus trees in your Tulare-Kings County home garden? I have two: a Meyer lemon and a Navel orange. I love the fragrant blossoms and vibrantly colored fruit. Until recently, I pretty much ignored them. But when I became a UCCE Master Gardener volunteer, I learned a great deal about things that my husband and I were doing wrong in our yard and home garden. So the first targets for corrective action were our citrus trees.

The first issue was water. Citrus trees are evergreen. They do not drop their leaves like deciduous fruit trees, so they require water all year. With any luck, the water in winter can come from rainfall. In the heat of summer, they need much more water – about 10-12 gallons a day for a tree that is 12 feet in diameter. Citrus tree roots are shallow and wide spreading. The bulk of the roots are in the top 2 feet of soil, but they can extend out twice as far as the edge of the tree canopy. We replaced a small drip emitter near the trunk with a loop of drip tubing oriented in a circle about 3 feet away from the trunk. The emitter had been installed many years ago and it no longer provided enough water. The new drip tube delivers the correct volume of water to the roots and keeps moisture away from the trunk, which is important to reduce the risk of disease.

The next issue was nutrients. We fed our trees with a special fertilizer formulated for citrus trees. This provided nitrogen, phosphorous and potassium (N, P and K), as well as zinc, magnesium, iron and copper, important trace minerals for citrus. Nitrogen is the most essential nutrient. A mature tree needs about 1 pound of "actual" nitrogen per tree per year. Commercial fertilizers contain varying levels of ammonium nitrate or ammonium sulfate, which have different percentages of actual nitrogen. So be sure to determine the pounds of actual nitrogen when applying fertilizer. We applied the fertilizer in 3 "meals" in the spring and summer, instead of applying it all at once. The most critical time to supply nitrogen for citrus is between late February and March, before the big flush of growth in the spring.

The last issue for action was integrated pest management. IPM is a process for controlling pests and diseases. The process involves identifying pests and monitoring damage to determine what management action (if any) is needed. It employs a combination of methods for controlling pests: biological, cultural, physical and mechanical, and chemical. We became more observant. We learned about the most common pests of citrus at the UC IPM On-line website (*http://www.ipm.ucdavis.edu/index.html*) and watched for them. We pruned low branches to reduce the risk of brown rot caused by a fungus called Phytophthora. We thinned out some of the interior branches to improve air circulation and reduce fungal disease risk in the canopy. Our tree looks healthier because of improved irrigation and fertility. A well-cared for citrus tree in the home garden rarely needs any pesticides.

After all of those improvements, I was excited about the bumper crop of lovely, golden lemons developing. Imagine my dismay when I discovered dozens of the small fruit hanging in the tree with **split skins**! What HAPPENED??? To investigate, I went straight to the Local Gardening section of the Tulare-Kings UC Master Gardener website: *http://ucanr.edu/sites/UC_Master_Gardeners/*. This site contains a wealth of useful information on gardening and yard care. I quickly learned that fruit splitting in citrus is sometimes seen in the fall after a hot, dry summer. Drought stress may be the cause, and some varieties, especially thin-skinned citrus (like Meyer lemons) are more susceptible. A heavy crop also increases the incidence.

So that was it! Corrective action enabled our tree to become more fruitful. The fruit are smaller and thinner-skinned than usual. This predisposed them to the skin splitting condition brought on by the unrelenting summer heat. Luckily, only about 20% of the lemons were affected, so there were still plenty of lemons for us to harvest.

This summer, I am paying closer attention to soil moisture to ensure the citrus trees are evenly watered during the hottest days of summer.

The Tulare-Kings Counties Master Gardeners will answer your questions in person:
Visalia Farmer's Market- 1st & 3rd Saturdays, 8-11 am, 2100 W. Caldwell Ave (behind Sears)
Hanford Farmer's Market – 4th Thursday, May – Sept, 5:30 – 9:00 pm, 219 W. Lacey, Hanford

Questions? Call the Master Gardeners:
Tulare County: (559) 684-3325, Tues & Thurs, 9:30-11:30;
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