



Helping Plants Through the Heat

By Kit Smith

UCCE El Dorado County Master Gardener

Plants show stress due to inadequate water in a number of ways. They wilt, their leaves turn brown and crisp around the edges and drop, branches die back and blooming stops or blossoms prematurely drop. Chlorophyll production starts to shut down and leaves lose their green color because plants are trying to conserve water.

In the heat, soil temperature rises, and this slows root activity and stunts plant growth. Plants may suddenly become susceptible to insect attack. Newly-planted trees and shrubs are most sensitive to heat damage. Here are some tips to help your garden through the hottest part of the summer.

Roots take up water from the soil and send it through the plant. Water keeps the cell walls rigid. Water evaporates through the stomata on the underside of leaves, acting to cool each leaf. A plant cannot cool itself without sufficient water in the soil. Give them ample water to keep up with transpiration, their natural loss of water.

Water deeply and regularly. A slow drip might be good so the water can soak deep into the root zone, which could be 18 inches down. Misting the foliage often is beneficial, too. Water early in the day so plants can uptake moisture before it gets too hot. Watering at night invites disease.

Vegetable plants experience the greatest water need during flower formation and development of edible parts like head and leaf, corn ear development, root enlargement for carrots and flowering, fruit set and enlargement for tomatoes, peppers, cucumbers and eggplants.

Mulch the soil with at least three inches of mulch to prevent water loss and keep the soil temperature low. Make sure mulch does not touch stems or trunks. Pinch back herbs and deadhead flowers. Plants conserve moisture to stay alive, and pruning reduces the size and the amount of water needed to keep the plant alive.

Potted plants should be moved to cooler locations. Plastic pots absorb heat and can fry plant roots; move plants that are struggling in the heat. Ensure young plants, maturing fruits and vegetables are shaded. Sunscald will occur if the fruit is exposed to intense sunlight especially if the plant has begun to defoliate.

Last, avoid fertilizer. Too much fertilizer burns the plants and causes the plants to expend energy producing a burst of growth.

The public is welcome to attend the free Master Gardener Saturday classes. Locations vary; check our website for the latest schedule: http://ucanr.org/sites/EDC_Master_Gardeners/. And Master Gardeners are available to answer garden questions at the local farmers markets

Master Gardeners are available to answer home gardening questions Tuesday through Friday, 9 a.m. to noon, by calling (530) 621-5512. Walk-ins are welcome. The office is located at 311 Fair Lane in Placerville. For more information about our public education classes and activities, go to our Master Gardener website at http://cecentralsierra.ucanr.org/Master_Gardeners/ and you can find us on Facebook.