



NEWSPAPER ARTICLES

Irrigation Problems in the Garden (May 7, 2022)

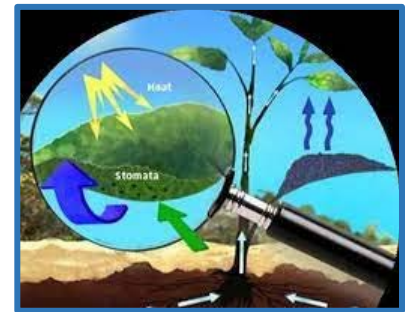
by Anne Skinner, UCCE Master Gardener

A walk around your garden is good for both you and the garden. It's an opportunity to admire your gardening efforts and calm your mind. The garden benefits from your walk in that you may catch problems before they cause significant damage. Established trees and shrubs are important to monitor because replacing them will not only involve expense and effort, but loss of one of these garden features may alter other aspects of your overall landscape design.

In the middle of the summer heat, it's not totally unexpected to have some dead leaves on an established shrub or tree in the garden. What is concerning is whole sections of the plant demonstrating die back or browning leaves which may or may not fall off. Especially when this happens fairly suddenly, such as over a couple of weeks, it bears investigation.

Plants transpire water vapor through their leaves

The leaves have stomata or openings in the outer layer of leaf cells for the exchange of oxygen, carbon dioxide and evaporation of water. The evaporation of water cools the plant during hot weather. When less water is available, the stomata close to reduce water loss during the release of oxygen and intake of carbon dioxide. Significant reduction in water available to the roots will be demonstrated in leaf color and texture changes. In the case of a large shrub or tree, on a hot dry day, the water loss due to transpiration can be in the hundreds of gallons.



Catching signs of stress due to reduced water availability early can maintain the beauty of the plant and may be lifesaving.

Irrigation system concerns

If the shrub is on an irrigation system, this is the first place to check. Is the irrigation timer malfunctioning? Even minor power failures can alter the irrigation schedule. The wiring to the valve may have been damaged or come loose. Does the irrigation timer setting need adjustment to match the season? If the irrigation system is watering during cold, rainy days, the soil will become water-logged, and the roots can become unable to take up oxygen and die. Tree pruning or lawn equipment may have damaged an emitter. Drip emitters have a small opening to provide the slow flow of water just to the root zone. These small openings are very prone to clogging from the salts in well water. If the irrigation system contains impact sprayers there may be an obstruction blocking the spray pattern. This prevents it from covering the full range of spray arc. The plant itself may be blocking it with new growth or the sprayer mechanism may need cleaning or oiling. If the water is now spraying on the crown or leaves of the plant, it can cause fungal diseases. This can be observed as dark spots on the leaves, mushroom growth, or dead branches in the plant.



Chewing rodent's vs irrigation systems

Especially under a large shrub, water-seeking rodents will chew through drip lines, causing excess water in one area and virtually no flow further down the line. Unfortunately, a large shrub can provide cover for a rodent restaurant for mice, voles, gophers, squirrels, and rats. This problem can be detected by turning on the irrigation system manually and listening for areas of abnormally high flow. One solution is to replace the drip emitter system with heavy plastic in-line drip tubing. The tubing is less vulnerable to small chewing rodents and also can be flushed to remove mineral deposits.

Have there been any landscaping changes?

Changes in other areas of the garden can cause the plant to receive much more sun or shade to certain areas of the plant. This can be from pruning you did last fall, or perhaps a neighbor has built a structure which now shades the plant. An increase or decrease in sunlight the plant receives affects the amount of water it requires for optimal growth. Or possibly, the removal of an area of lawn may have reduced the water supply the plant had come to expect. Tree roots extend out beyond the canopy of the tree and seek additional water especially during the hot days of summer.

A walk in the garden benefits the gardener and the garden

There are also specific plant problems which can cause leaf changes. There will be another walk around the garden article to cover more topics. The Master Gardener web site has a wealth of information on all aspects of plant care and UC Integrated Pest Management. Under pest management, there are specific solutions for rodent invasion. Enjoy your walk in the garden and your plants will benefit from early observation of problems while they are correctable.

The Master Gardeners will be available to answer your questions at a few select locations in the next few months!

4/30/22, 10 am-2 pm -- Motors at Mission Oak Car Show, Mission Oak High School, Tulare

5/21/22, 10 am-3 pm -- GO Native!, Kaweah Oak Preserve, 29979 Road 182, Exeter

Visalia Farmer's Market- 1st & 3rd Saturdays, 8-11 am, 2100 W. Caldwell Ave (behind Sears)

Ace Hardware, Visalia - 1st Sat./every month, 10 am-1 pm

Luis Nursery, Visalia - 2nd Sat./every month, 10 am-2 pm

Questions? Call us:

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

Kings County: (559) 852-2736, Thursday Only, 9:30-11:30 a.m

Visit our website to search past articles, find links to UC gardening information, or to email us with your questions:

http://ucanr.edu/sites/UC_Master_Gardeners/

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