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University of California
Agriculture and Natural Resources
Making a Difference for California

The Green Scene

UCCE

June 2021

Meetings and Announcements

UCCE Kern County Office Situation--Reopening

UC Cooperative Extension offices throughout California are planning to reopen July 1. I don't have the details at the moment, but reopening will allow easier access for visitors. Email will still be a good way to reach me, jfkarlik@ucanr.edu.

Weekly Zoom Presentation

My weekly zoom presentations on gardens and landscapes are continuing. These presentations are Thursdays at 4:30 pm, and are often based on photos from our past horticultural tours. However, the next presentation, June 24, will be a visit to the UC Davis campus and its water-conserving landscapes. If you didn't receive the Zoom log-in information, please send me an email, jfkarlik@ucanr.edu, and I'll send you the meeting ID and password.

Xeriscape Principles for Water Conservation

With summer off to a warm start and a very dry year underway in California, water conservation will be sensible, important, and necessary. In the mid-1980s there was a strong movement in California and elsewhere toward understanding, developing, and promoting water-conserving landscapes. There were conferences held in the Central Valley, Los Angeles, and northern California to promote the use of drought-tolerant plants and a then-new design approach called xeriscape. From the Greek word ξηρος, *xēros*, "dry," the idea was to conserve water while maintaining an aesthetically attractive landscape. About that time, seven principles were enunciated by the National Xeriscape Council, apparently originating with Denver Water and its associated volunteers. Since that time, these principles have become widely incorporated into landscape design, and are the following:

- Planning and design
- Soil analysis
- Appropriate plant selection
- Practical turf areas
- Efficient irrigation
- Use of mulches
- Appropriate maintenance

I think these are useful principles for water conservation, but I think they should be re-ordered to reflect their relative importance for water conservation, especially for our area. I rank them as follows and then comment on each:

- Efficient irrigation
- Use of mulches
- Planning and design
- Appropriate plant selection
- Practical turf areas
- Appropriate maintenance
- Soil analysis

Efficient irrigation: This is the key to any attempt at water conservation, for without attention to irrigation design and scheduling, the other points have no value. Plant selection, etc., does not save water. It's irrigation scheduling that results in water savings, and so this principle is first and more important than the others.

Use of mulches: Mulches reduce surface evaporation, provide insulation so soil temperatures can be cooler, and suppress weeds. Bark or other organic mulches are preferred over rock or plastic. Adding mulch is an easy step that confers direct benefits.

Planning and design: I interpret this point to be about zoning of the irrigation system for plants; that is, placing plants with similar water requirements on the same line or valve. Otherwise, the more needy plants cause irrigation to be increased for all plants on the line.

Appropriate plant selection: Plant selection is important in the context of water conservation only to the extent that plant selection allows irrigation to be reduced. In almost all landscapes, modifying the irrigation schedule results in large water savings, and further modifications, such as changing plants, result in additional but smaller savings.

Practical turf areas: Actually, turf can be quite water-thrifty. When driving west from the Mississippi River into the Great Plains, trees become infrequent but grass remains. Warm season grasses need less water than cool-season grasses, with further water savings if a warm-season grass is irrigated according to best practice. In most home landscapes, irregular turf areas and lack of uniformity of the irrigation system result in overwatering. Reducing turf areas may result in less applied water.

Appropriate maintenance: This point could apply to any landscape. However, mowing height will affect turf water need, and tree pruning can result in more or less shade.

Soil analysis: Soil is what it is. Soil analysis can say something about the physical or chemical situation, but in many landscape situations soil nutrient levels are adequate and soil analysis may not say much about how to save water. Sandy soils have less water holding capacity and hence need to be irrigated more frequently than do soils of finer texture, e.g., silts and clays.

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