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Saving Water (and $) in Home Landscapes, Gardens, and Orchards

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The key to saving water in a landscape is irrigation scheduling. Modifications to a landscape are of no value for water conservation unless the irrigation amount is reduced.

Check the system

Periodically run the irrigation system to check for missing heads, broken risers, and sprinkler coverage. Repair as necessary.

How much to water?

Water needs of plants in home gardens, landscapes, and orchards change by a factor of 10 from winter to summer. Therefore, irrigation schedules should be changed at least four times per year: spring, summer, fall, and winter (when perhaps the system can be shut off).

Irrigation amounts are usually expressed as a depth of applied water. In winter, about 0.02 inches per day are needed in the Bakersfield area, while in summer the value rises to about 0.25 inches per day. Weather conditions will affect water needs of plants. Please see the University of California publication *Landscape Water Conservation*.

You can measure how much water your sprinklers deliver by placing cans or coffee mugs in the landscape and running sprinklers for a set amount of time. You can also estimate total landscape water use from your water bill.

As a practical approach, irrigate and monitor. In other words, check soil moisture between irrigations with a shovel, soil probe, or screwdriver, and adjust the irrigation schedule accordingly.

How to water?

Irrigation scheduling is a combination of frequency (how often) and duration (run-time). As a rule-of-thumb, plan to fill a plant rootzone and then irrigate again when about half the water has been used. Therefore, set run-times for each irrigation zone and then add or subtract days depending on season of the year.

When to water?

Early morning is usually best since wind speeds and temperatures are low, so less evaporation and wind-loss occur.

What about mulches?

Mulches, such as wood chips or shredded leaves, help save water by reducing evaporation from soil.

What about turfgrass?

Turfgrass is water-thrifty if irrigated carefully. However, turf is often over-irrigated, so reducing the area of turf may lead to water savings. Experimental data show warm-season grasses, such as bermudagrass and the UC release 'El Toro' zoysia, offer water savings over cool season turfs, such as tall fescue or bluegrass.

What about "drought-tolerant plants?"

Research-based water-use data do not exist for many plants. Therefore, we often infer drought tolerance from where a plant grows in nature. However, many California natives and plants adapted to desert conditions do not perform well under irrigated conditions. These plants may be susceptible to root rot, for example. Drought-tolerant plants, per se, do not save water. Saving water is accomplished by changing irrigation schedules.