



## Gardening during Drought or Water Restrictions

Droughts occur periodically in California and provide a challenge for gardeners. Unfortunately, a plant that is water stressed can be irreversibly damaged. But on the other hand, most of us unwittingly over water our gardens. Here are a few tips to help guide you through periods of low water supply:

1. Water only when needed:

Dig down a few inches to see if soil is drying out, especially if you are using mulch.

Recognize plant signs of too little water:

- leaves that stay wilted even in cool evening hours
- lawn grasses that retain a footprint for several minutes
- curled or yellow leaves that may fold or drop
- normally green foliage that becomes grayer

Plants showing the above signs of stress need to receive water right away to prevent irreversible damage (but see 5 below).

3. Use several inches of mulch. This will keep soil cool and reduce evaporation. Be sure any drip irrigation or soaker hoses are **below** the mulch.

4. When you water, make it deep and infrequent. – about 18 inches for shrubs, 2-3 feet for trees. A sturdy stick or piece of rebar can usually be inserted easily into the soil to the depth of watering.

5. Prioritize. Which plants are most important to you and hardest to replace?

6. Maintain watering systems. Clean filters and flush out drip irrigation systems to prevent clogging. Check often that any spray irrigation is confined to targeted plants and is evenly distributed. Be vigilant in finding and fixing leaks.

6. This is not the first or last of the California droughts. A garden that focuses on low water use plants adapted to the California climate will be resilient to future droughts that come our way.

**New plants** Young plants, even drought resistant ones, need regular water their first summer or two in order to become established. A drought is usually not the time to completely redo landscaping. Fall is generally the best time for establishing new vegetation, because of the fall rains and cooler temperatures.

**Ornamental Trees** Most homeowners wisely choose to use whatever water is available to save their mature landscape ornamentals and fruit trees. One or two deep irrigations with a garden hose several weeks apart in spring and summer will often keep these valued plants alive through summer, especially if roots are relatively deep. Although mature trees can often survive one season with only one or two deep waterings during the spring and summer, two

seasons without enough water can result in severe drought stress and even death. Drought-stressed trees can be more prone to damage from diseases and insects.

**Fruit and Nut Trees.** Keeping fruit and nut trees alive during severe water shortages is also possible, although crop production will probably be greatly reduced or stop. To produce a good crop, deciduous fruit and nut trees need adequate water in their root zones continuously from bloom until harvest. Citrus trees need adequate soil moisture during spring to set fruit and steady water in summer and fall to produce acceptable size, numbers, and quality of fruit. However, fruit and nut trees can be kept alive with a few early-season water applications, but they may not set much fruit.

**Vegetables.** Vegetables need special attention during a drought. Know the critical watering periods for vegetables and you can target the timing and amount of water to add. As a rule of thumb, water is most critical during the first few weeks of development, immediately after transplanting, and during flowering and fruit production. Tomatoes, beans, and root crops such as carrots require regular watering and are not tolerant to long, dry periods. Viney vegetables such as squash and zucchini often fare better and can be kept alive with a few waterings once or twice a week through the season.

**Shrubs.** Most established shrubs can survive long periods of dry soil. Thorough spring watering and one or two thorough waterings in the summer keeps most well-established shrubs alive for at least one season.

**Ground covers.** Ground covers often survive on about half the amount of water they would receive under optimal conditions, although some dieback may occur. To avoid serious drought stress, they should be watered at least every 3 to 6 weeks from April through September, depending on location and soil conditions.

**Lawns.** Warm-season lawns planted in bermudagrass and buffalograss are more drought-efficient than cool season grasses (e.g. tall fescue and ryegrass) and may come back after several weeks of dryness. Cool season grasses may die within a month or two of receiving no water. Signs of drought include wilted leaves and a blush-gray appearance followed by yellow leaves that will eventually turn brown. Cutting the length of irrigation down to ½ of that recommended in the UC Lawn Watering Guide <http://anrcatalog.ucdavis.edu/pdf/8044.pdf> and watering only once or twice a week may help get your lawn through the drought. (Once a lawn stops receiving adequate moisture, it will gradually turn brown and go dormant over time. A lawn that recently turned brown from drought can often be revived with regular, thorough watering.

[Source: mostly from Keeping Plantings Alive under Drought or Water Restrictions, Janet Hartin and Ben Faber, UC Cooperative Extension, ANR]