Keeping Landscapes and Garden Plants Alive Under Drought or Water Restrictions

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This Information Will Help You:

- Recognize the signs of drought
- Reduce water waste
- Prioritize which plants to water when there just isn't enough water to go around
- Think ahead in preparation for a bright sustainable future

Recognizing Early Signs of Drought Stress is Important Because:

- Irreversible damage can occur that no amount of watering will correct
- Mature fruit trees and landscape trees are worth saving!

Common Symptoms of Drought Include:

- Wilting or drooping leaves that do not return to normal by evening
- Curled or chlorotic (yellow) leaves that may fold or drop
- Foliage that becomes grayish and loses its green luster
- New leaves that are smaller than normal
- Lawns that retain a footprint for several minutes

The Effects of Drought


Hosta Drought Damage


Turf Drought Damage

Suggested Methods To Maintain Various Landscape Plants During Water Restrictions and Severe Drought

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

Ornamental Trees Cont.

- 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.

Ornamental Trees Cont.

- Watering with a garden hose slowly and deeply will help necessary water reach the root zone. Soaker hoses work well, too. Water mature trees several feet out from the trunk and make sure water is moving through the soil several inches deep into the root zone.

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.

Peaches, Plums, And Nectarines

- Adequate irrigation during the final 4 – 6 weeks before harvest is important to produce fruit. If necessary, reducing water application just prior to this period and after harvest are viable strategies.
- If little or no irrigation water is available throughout the season, trees may be kept alive by severely cutting scaffolds back to the trunk (dehorning).

Citrus

- 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.

Vegetables

- Vegetables are difficult to maintain 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.

Vegetable Cont.

- Tomatoes, beans, and root crops such as carrots require regular watering and are not tolerant to long, dry periods. Vine crops 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.

Groundcovers

- Groundcovers often survive on about half the amount of water received under optimal conditions, although some dieback may occur.
- To avoid serious drought stress groundcovers require waterings every 3-6 weeks from Spring through Fall depending on species and soil type and microclimate.

Lawns

- Warm-season lawns such as bermudagrass and buffalograss are more drought-resistant than cool season grasses such as 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.
- Cutting the length of irrigation down to ½ of that recommended in the UC lawn watering guide (http://anrcatalog.ucdavis.edu/pdf8044.pdf) and watering only once or twice a week may help lawns survive drought.

Lawns Cont.

- 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.

What Else Can You Do Right Now Without Starting Over?

Mulch

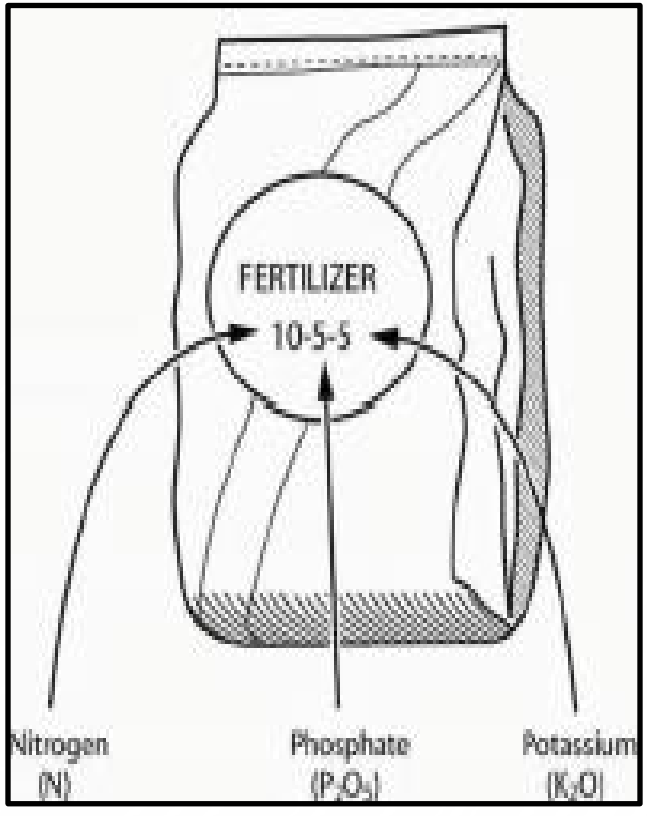
- Apply 2-3” of mulch around garden plants and trees to hold water in and reduce soil evaporation.
- Keep it several inches away from tree trunks!
- Make sure to water beneath the mulch.

Avoid Planting New Plants

- Young plants require frequent irrigation until established and should not be planted during a drought or under water restrictions.
- Even native plants require continually moist root zones during establishment.

Avoid Overfertilizing

- Too much nitrogen results in lush, weak new growth, and increases the need for even more water.
- Too much fertilizer can lead to pollution of waterways.



Keep Weeds Out!

- Weeds often outcompete garden plants and trees for water.
- Avoid using chemical herbicides; hand-weed instead. Overuse of pesticides can lead to waterways pollution.

Use a Broom Instead of a Hose to Clean up After Gardening/Pruning

- Save water and avoid polluting waterways.
- Get some exercise!

What About Long-term Solutions?

- Once water restrictions are lifted think about replacing all or a portion of your lawn with drip-irrigated water-efficient ornamentals.
- Hydrozone: place plants with similar water needs together.
- Before planting, mix compost evenly several inches into garden soil to hold water in longer and decrease the chance of waterway pollution from runoff (clay soils) or draining below the root zone into groundwater (sandy soils).

What About Long-term Solutions?

- Add 2-3 inches of mulch on top of garden soil and around trees and shrubs, keeping it several inches away from tree trunks.
- Consider adding a graywater system if legal in your jurisdiction. (Graywater systems reuse water from washing machines and showers.)
    - Never apply graywater to edibles or edible plant parts!

Beautify Your Landscape, Protect the Environment, and Save Water, Money, and Time!

University *of* California Cooperative Extension (UCCE) Master Gardeners are here to help! Contact your local UCCE Master Gardener program:

https://camastergardeners.ucanr.edu