

Question: Will the plants in most landscapes survive the drought without supplemental watering?

Answer: Trees, shrubs and grasses that have been planted a year or less are the most vulnerable. Plants that are well established and healthy can withstand much more drought stress than we have experienced to date. Of course there are exceptions to all generalities. For instance, very well established azaleas and hydrangeas are suffering. These plants have relatively small root systems adapted to semi-shady light conditions and moist soil environments. Many times these plants are located in less than optimal conditions and they suffer as a result. There are numerous other examples and plant needs must be considered on a case by case basis. Therefore, it pays you to learn a little about specific plant needs prior to planting when possible.

In the western part of the country many people have adopted a gardening practice called xeriscaping. I don't really like the word because it implies you must grow cactus or succulent plants only. Actually, the practice is much more balanced and involves grouping plants by water needs and limiting heavy water use areas. It also involves implementing some very common sense water use practices that I call "Water Wise Gardening". Below you will find just a few of these basic tips that I hope will help your plants survive the drought and conserve water.

- **Only water the plants** – not the street or sidewalk. If you see water running down the street your irrigation system needs to be adjusted. It could mean the water is being applied too rapidly for the soil to absorb or the sprinklers are not properly located and are simply aimed poorly.
- **Water plants according to their needs.** This means you need to know something about the specific plants in your landscape. Plants will be healthier and you'll have a lower water bill. Water once a week in any garden area, including established lawns and only in the absence of rain. Set watering priorities: which plants will suffer first, and which are hardest to replace? Established herbaceous plants, like flowers, need water once per week, but established large trees can go much longer.
- **Warm season turf is tougher than you think.** Well established turf can be weaned off frequent irrigation by slightly raising the mowing height, reducing fertilization and reducing irrigation frequency while increasing irrigation depth. Warm season grasses can be allowed to go dormant if you wean them off the heavy fertilization and irrigation regime that so many people have adopted. If we continue in a prolong drought even dormant grass may need some supplemental water but it does not need to stay green to survive. I have un-irrigated zoysiagrass that's fertilized very little and it survived last years drought fine with no supplemental watering. I had the added benefit of less mowing, less money spent on fertilizer and lower water bills.
- **Water during the coolest part of the day.** Water between 4 a.m. and 10 a.m. to decrease disease problems and water lost to evaporation. Some municipalities forbid watering at specific morning times or may allow only handwatering.
- **Use soaker hoses or trickle irrigation systems** for garden plants. Drip irrigation and soakers put water where it is needed – the roots. Spray irrigation sprinklers lose lots of water output to evaporation and wind. Drip systems and soakers have the added benefit of applying the water slowly enough so that it all soaks in rather than running off the targeted area. This method is actually more efficient than hand watering.
- **Don't over water.** On the other hand, do make sure the water soaks into the top 8 to 12 inches where most shrub and tree roots are concentrated. For turf, flowers, and other small plants the water need only soak about 4 to 6 inches deep. Avoid frequent and brief, shallow watering which encourages shallow roots. This actually increases the chance of drought stress later should water become even less available.

- **Water based on the weather**, not the clock. If you are allowed to use automated irrigation systems use sensors to prevent your clock-based controller from watering during a rain. Check the soil periodically to determine moisture depth. Consider collecting rain water using rain barrels or a cistern to water containers and small flower beds.
- **Mulch!** A two to four inch mulch layer helps plants through weather extremes by moderating moisture loss and soil temperatures. It also increases water penetration during heavy downpours by breaking up the water particles. Mulch as large an area as possible around trees and shrubs. Mulch is especially important to shallow rooted ornamentals like hydrangeas, dogwoods and azaleas. Excessive mulch may have the reverse effect because the roots will grow up into thick mulch and die when it dries out during these times of severe drought.
- **Minimize gardening activities.** Avoid pruning and fertilizing in droughty weather. Pruning and fertilizing both stimulate growth, which can additionally stress plants. Also avoid planting and transplanting in droughty weather. New plants thrive best with natural rainfall and mild conditions. Transplants require extra water for establishing new roots. Fall is still the best time to plant. Hold off until more suitable weather for any landscape improvements that involve setting out new plants.

For more tips and information on drought tolerant plants visit the following web page:
www.aces.edu/issues/drought/DroughtNewsReleases.php or call the Master Gardener Helpline toll free at 877-252-GROW.