Water Conservation in the Home Landscape

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Seven Basic Principles

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

Where to go for Help?

- http://aggie-horticulture.tamu.edu/earthkind/drought/

Planning and design

- http://www.youtube.com/watch?list=PL8373A2802FABB8BA&v=gIgk5XUcMNU&feature=player_embedded
- Creating a water-efficient landscape begins with a well-thought-out landscape design.
- Sketch your yard with locations of existing structures, trees, shrubs and grass areas.
- Then consider the landscape budget, appearance, function, maintenance and water requirements.

Soil Analysis and Preparation:

- Soil Testing-Know what you have before you start
- To increase plant health and conserve water, add organic matter to the soil of shrub and flower bed areas. This increases the soil's ability to absorb and store water in a form available to the plant. As a rule-of-thumb, till in 4 to 6 inches of organic material such as shredded pine bark, peat and rice hulls.
- For trees, however, incorporating organic matter is not necessary;
- For large turfgrass areas, it is not economically feasible.

Plant Selection:

http://aggie-horticulture.tamu.edu/earthkind/plantselector/

Grass Selection:

- St. Augustinegrass and bermudagrass are most often used for lawns in Texas.
- Zoysiagrass, buffalograss and centipedegrass are used less often but offer much promise for landscape water conservation.

- http://aggie-turf.tamu.edu/

Watering

- Lawns
  - To know when to water the lawn, simply observe the grass. Wilting and discoloration are signs of water stress. At the first sign of wilting, you have 24 to 48 hours to water before serious injury occurs. Apply 1 inch of water to the lawn as rapidly as possible without runoff. Watering only when needed and watering thoroughly produces a deep-rooted lawn which is more water efficient and drought enduring.

Watering

- **Trees and Shrubs:**
  - All trees and shrubs need more frequent watering from planting time until becoming well rooted, which may take two growing seasons. Once established, plants can then be weaned to tolerate less frequent watering. Proper weaning develops deep roots and makes the plants more drought enduring.

Watering

- Trees & Shrubs
  - The feeding root system of a tree or shrub is located within the top 12 inches of the soil and at the “dripline” of the plant.
  - The dripline is the area directly below the outermost reaches of the branches. Apply water and fertilizer just inside and a little beyond the dripline, not at the trunk.
  - Simply lay a slowly running hose on the ground and move it around the dripline as each area becomes saturated to a depth of 8 to 10 inches. For large trees, this watering technique may take several hours.

Mulching

- pine bark,
- compost and woodchips
- inorganic materials, such as lava rock or limestone
- permeable plastic
- not sheet plastic

A good mulch conserves water by significantly reducing moisture evaporation from the soil. Mulch also reduces weed populations, prevents soil compaction and keeps soil temperatures more moderate.

Proper Mowing and Fertilizing Conserves Water:

- Mowing grass at the proper height conserves water.
  - Mow St. Augustinegrass and buffalograss at 3 inches;
  - for Bermudagrass mow at 1 inch;
  - for centipedegrass and Zoysiagrass mow at 2 inches.

- Fertilizer applications during a drought like this will only increase water demand by the plants.