

STEP 5: Efficient Irrigation

Efficient irrigation usually results from a carefully and appropriately designed irrigation system. The irrigation should be designed according to the water needs of plants. Never install an irrigation system before the landscape design is created. A well-designed irrigation system results in more efficient water use and less water waste.

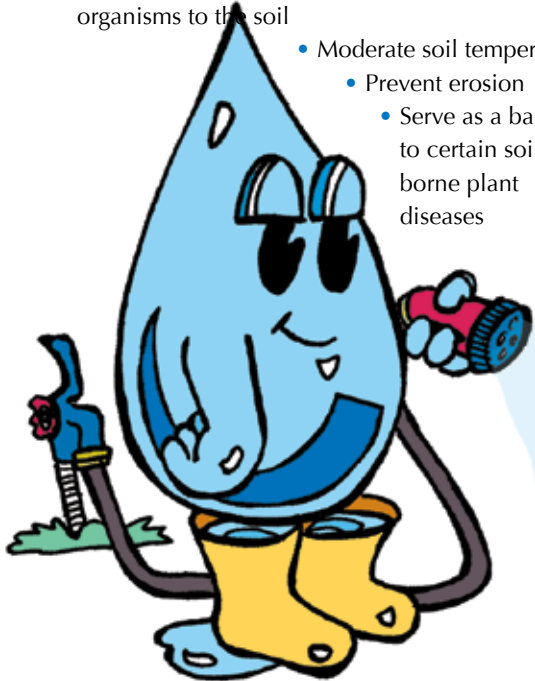
Consider using drip irrigation to water ornamental trees, shrubs and flowers. It uses 30% to 50% less water than sprinkler irrigation, and less water is lost to evaporation than with sprinklers.

STEP 6: Use Mulches

Mulches provide many benefits in the landscape. They:

- Aid in retention of water and minimize evaporative water loss from the soil surface
- Help prevent weeds that compete with plants for moisture
- Add organic matter and beneficial micro-organisms to the soil

- Moderate soil temperatures
- Prevent erosion
- Serve as a barrier to certain soil-borne plant diseases



STEP 7: Appropriate Maintenance

A Xeriscape is a low-maintenance landscape. It requires:

- Less water
- Less fertilizer
- Less frequent fertilization
- Less routine pruning
- Fewer pesticides

Water, fertilization and pruning encourage new vegetative growth, and new growth increases the overall water requirements of the plant. This succulent new growth wilts readily during periods of limited rainfall, which encourages additional irrigation. Applying less fertilizer and fertilizing less frequently reduces the chance of nutrient run-off into rivers, lakes, and streams.

Grasscycling, the practice of letting clippings fall back into the lawn when mowing, is another important part of Xeriscape maintenance. Clippings provide a natural mulch at the soil surface, helping reduce watering.

Research has shown that as much as 30% of the nitrogen applied as fertilizer is recycled back to the turfgrass when the clippings are added back to the grass.

**Make Every Drop Count...
Our Future Depends on It!**

For additional information on saving water in the landscape, see Georgia Cooperative Extension Bulletin 1073, *Xeriscape: A Guide to Developing a Water-wise Landscape*. Also visit <http://www.caes.uga.edu/topics/disasters/drought/> or contact your local county Cooperative Extension office by calling 1-800-ASK-UGA1.

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Make Every Drop Count!

Xeriscape: Seven Steps to a Water-Wise Landscape

A water-wise landscape can reduce outdoor water use by 50%.

In summer, water use may increase 50% as homeowners use water outdoors for landscape and recreation.

As water becomes more limited, landscapes must require little to no water beyond what Mother Nature Provides.

A water-wise landscape is more than just a drought-tolerant landscape. It's a landscape that has been carefully designed, properly installed and managed to assure year-round beauty, in addition to being drought-tolerant.

You don't have to totally re-design your landscape or spend a lot of money to make your landscape more water wise. Sometimes, changing watering habits, adding mulch, or relocating a plant to a more desirable location can save a lot of water.

Over-watering is more of a problem than drought in Georgia landscapes. Over-watering may cause root rot and weaken a plant, making it more prone to insects and diseases. Ironically, plants are most often over-irrigated during periods of limited rainfall, a time when water resources are in short supply. Over-watering not only wastes water, it also increases the likelihood that fertilizers and other chemicals may runoff into storm drains where they become pollutants and make their way back to our streams, rivers, and lakes.

Coined in Colorado in 1980, the word Xeriscape (pronounced Zera-scape), comes from the Greek word "Xeros" which means dry.

Xeriscape is a seven-step approach to water conservation in the landscape. The steps are:

1. Proper planning and design
2. Soil analysis and improvements
3. Appropriate plant selection
4. Practical turf areas
5. Efficient irrigation
6. Use of mulches
7. Appropriate maintenance

The seven steps work in any climate. A landscape designed, installed and managed according to the seven steps uses up to 50 % less water than a traditional landscape. A well-designed Xeriscape is just as attractive as a traditional landscape.

The seven steps of Xeriscape are:

STEP 1: Proper Planting and Design

A water-wise landscape is designed to be functional and water-efficient. Consider the lay of the land — differences in soil and changes in sunlight levels throughout the day. Existing vegetation on the site indicate the kinds of plants that grow well in the area.

When designing a water-wise landscape, group plants according to water needs. Place plants into one of three water-use zones: high, moderate, or low.

High water-use zones — small, highly visible areas, such as the home entrance, are watered as needed.

Moderate water-use zones — plants in these areas are watered only when they show signs of moisture stress by wilting and turning a gray-green color.

Low water-use zones — plants in these zones are watered only during establishment.

Ideally, not more than 10% of the landscape should be zoned for high water use, 30% or less of the area should be zoned for moderate water use, while 60% or more of the landscape should be zoned for low water use.

STEP 2: Soil Analysis and Improvements

An individual landscape may have many soil types. Evaluate the soils for:

- Structure and texture

- Topography and slope of the site
- Chemical characteristics

To determine chemical characteristics of the soil, take a sample to your local county extension for testing. The results will tell you whether your soil needs lime and what kind of fertilizer will provide best growth.

Amend the soil with organic matter to improve:

- Structure and texture
- Nutrient holding capacity
- Water holding capacity

For poorly drained soils, add coarse-textured aggregate, such as pea gravel or stone.

During landscape construction:

- Slope beds away from buildings
- Introduce gentle swales to add interest and to retain soil moisture
- Plant moisture-loving plants at low elevations
- Plant drought-tolerant plants at higher elevations

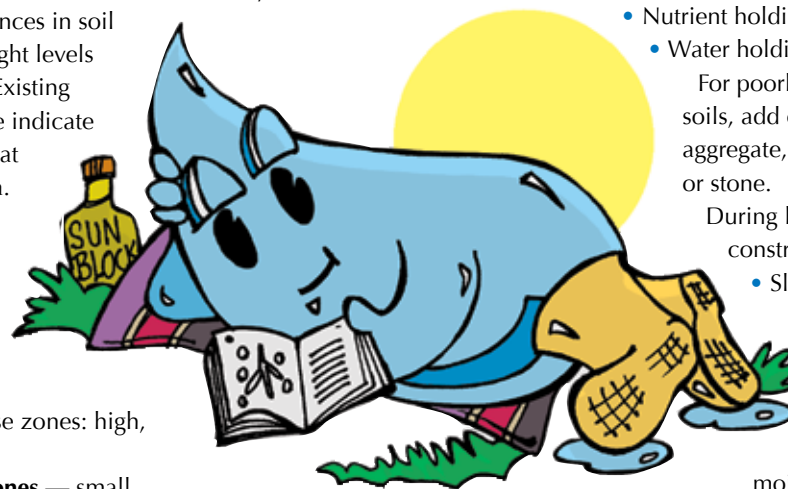
STEP 3: Appropriate Plant Selection

Today there is a huge variety of plants on the market, and selecting the right plant for each location in the landscape is confusing.

Adaptability of the plant to the site in which it is to be grown should be an important consideration when selecting plants. Consider:

- Sun exposure
- Light intensity
- Typical wind conditions
- Average summer and winter temperatures
- Drainage patterns

Regardless of whether a plant is native to the area or an exotic import, if it is adapted to the soil, the climate, and local site conditions, it will thrive.



**Remember, plants don't save water...
People save water!**

STEP 4: Practical Turfgrass Areas

For recreational areas, turfgrass can't be beat. It:

- Reduces erosion
- Provides aesthetic appeal
- Absorbs pollutants

However, turfgrass also requires more frequent maintenance than most other plants, and it usually receives the highest amount of supplemental irrigation of any plant in the landscape.

Turfgrass varieties differ tremendously in their drought tolerance. Bermudagrass, for instance, thrives in low water-use zones if it is kept healthy and well-maintained. It will actually go dormant during drought, then bounce back with vigor when rain returns. Ask your local county Extension Agent or nurseryman for a list of recommended drought-tolerant turfgrasses for your area.

In a Xeriscape, the amount of lawn irrigated is minimized, just as the amount of irrigated ornamental plantings is minimized. Through careful plant selection and proper management, turfgrasses can grow in all three water-use zones in a Xeriscape.

