

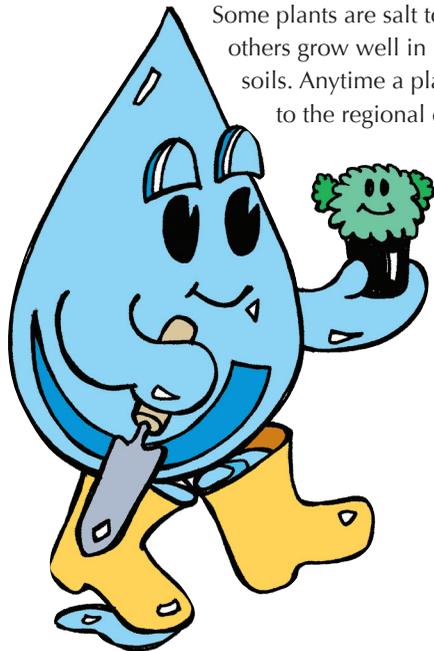
## CREATE WATER-USE ZONES

As you design your new landscape, divide it into high, moderate, and low water-use zones. High water-use zones are small, highly visible areas of the landscape, such as the entrance to the home, where plants are watered routinely to keep them looking their best. In the moderate water-use zones, plants are watered only when they show signs of moisture stress, while plants in the low water-use zones are not irrigated once they are established. Ideally, not over 10% of the landscape should be zoned for high water use, 30% zoned for moderate water use, while 60% or more should be zoned for low water use.

## SELECT REGIONALLY APPROPRIATE PLANTS

Regionally appropriate plants are more adapted to the area and require less water. Every region of the country is known for growing certain plants. Some are native to the area, others are not. These plants are known locally for their ability to grow well in situations specific to the area.

Some plants are salt tolerant, others grow well in heavy clay soils. Anytime a plant is suited to the regional conditions,



it grows better and uses less water.

There has been much debate in recent years over the use of native plants versus non-native plants in the landscape. Some government agencies and municipalities have gone so far as to mandate the exclusive use of native plants on public projects. While there are many philosophical arguments for and against the use of native plants, from a water conservation point of view, plant parentage really does not matter. Determining the best plant suited for the specific site conditions, regardless of its origin, provides the most positive outcome.

Sometimes, a new variety discovered in a particular region is better suited to your area. A good example is red maple. Many of the cultivars of red maple in Georgia are not heat tolerant, but some, like 'October Glory', tolerate heat very well.

## AVOID PLACING RAISED BEDS UNDER TREES

Building raised beds under trees is harmful to trees, requires greater amounts of water for the plants growing there, and is only a short-term solution to root competition from the tree.

Large trees have extensive root systems that compete with adjacent plants for water and nutrients. There is a common belief that the remedy to this problem is to create a raised bed, either with timber edging or without. This practice can be harmful to the tree because placing more than three to five inches of soil above the existing soil level restricts the amount of oxygen and nutrients that reach the tree roots. It also promotes the growth of diseases in the area of the tree trunk covered with soil. If the tree lives, it will develop roots in the built up portion of the bed. These tree roots will compete with the roots of the adjacent plants for water and nutrients.

**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* on the Web at <http://pubs.caes.uga.edu/caespubs/pubcd/B1073.htm>. 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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Publication C895-2

July 2006

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, The University of Georgia College of Agricultural and Environmental Sciences and the U.S. Department of Agriculture cooperating.

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**Make Every Drop Count!**

## WATER SAVING TIPS WHEN PLANNING A NEW LANDSCAPE

Georgia's population growth is placing an ever-increasing strain on water supply.

In summer, residential water use increases significantly when citizens use water outdoors for landscape maintenance, recreation and cleaning.

As water becomes more limited, water conservation is essential. A water-wise landscape can reduce outdoor water use by as much as 50%.



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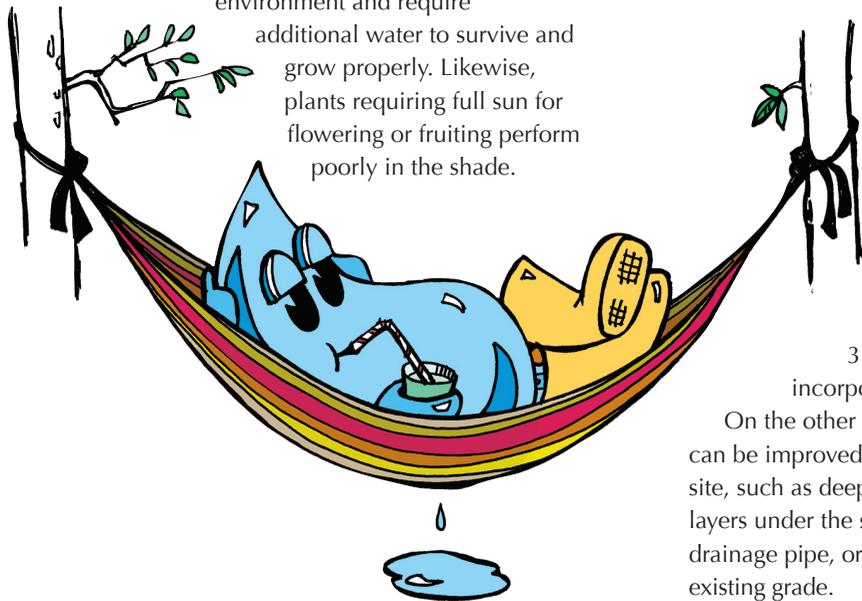
**If you are planning a new landscape or re-designing an existing landscape, these design tips can help you make every drop count:**

### **ADAPTED PLANTS GROW HEALTHIER AND REQUIRE LESS WATER**

Site analysis is an important part of any new landscape design, but it is particularly important for water conservation. Look at the sun and shade patterns throughout the day, the orientation of the property, soil drainage, and the general location of each plant planned for the landscape. Select plants best adapted to each location. If plants are selected according to site characteristics, their requirements for supplemental irrigation should be minimal.

### **SUN VS. SHADE**

Shade-loving plants struggle in a full-sun environment and require additional water to survive and grow properly. Likewise, plants requiring full sun for flowering or fruiting perform poorly in the shade.



When planning the landscape, consider both existing and future shade patterns. A newly-planted oak tree may cast little shade on nearby sun-loving plants when it is young, but as it matures and its shade patterns enlarge; sun-loving plants nearby may struggle to adapt to the shade.

### **EAST VS. WEST**

A compass is a good investment to plot the sunlight patterns on the site and determine where to place plants. The sun rises in the east and sets in the west, so shade-loving plants are best adapted to the east side of a building where they receive morning sun, then afternoon shade cast by the building. A western exposure is satisfactory for full-sun plants.

### **TOO DRY, TOO WET OR JUST RIGHT**

Water availability and movement in the soil has a direct impact on plant health. Some soils are poorly drained and become water-logged after rains, while others dry out quickly. Too much water can damage plants as much as too little water.

Soil type, soil texture, topography, and underlying rock or clay all influence water availability and drainage patterns. An ideal soil stays moist, but it is never wet for too long.

Soils that dry out quickly can be improved to better hold water by adding organic matter amendments, like compost. Apply

3 inches on the soil surface and incorporate it to a 12-inch depth.

On the other hand, soils that stay wet too long can be improved by making physical changes to the site, such as deep cultivation to break up hard-pan layers under the soil, installation of sub-surface drainage pipe, or building raised beds above the existing grade.

### **SAVE NATIVE VEGETATION ON THE SITE**

Native vegetation has adapted over time to the average rainfall of the region and should require no supplemental irrigation if it is left undisturbed. An island of native vegetation also can be visually appealing and will lend a natural appearance to the landscape. Although it's tempting to clear out underbrush and plant flowering shrubs or ground-cover plants under native trees, plant removal and soil disturbance upset the natural ecosystem and change a maintenance-free environment to one that requires routine maintenance.

### **PLANT COLORFUL ANNUALS IN SMALL BEDS OR CONTAINERS**

Annual flowers generally have a shallow root system and a high demand for water, so concentrate them in small beds or containers where they have highest visual impact. A container filled with annuals has less surface area to water than a ground bed. Containerized plants also can be moved from place to place in the landscape, wherever color and visual interest are needed.

When planting in containers, carefully select a container large enough to accommodate the roots, so plants will not out-grow the container.

### **SHADE REDUCES WATER LOSS**

A shaded landscape may be 20 degrees cooler than one in full sun, and cooler temperatures result in less evaporative water loss from the soil and plant surfaces. A vine-covered arbor over a walk, patio or outdoor swing keeps both people and plants cooler on a hot summer day. A row of tall evergreens planted along the western property line will cast a long shade pattern in the late afternoon, when daytime temperature is peaking.

Although shade trees keep adjacent plants cooler by shielding them from the sun, they also

compete with nearby plants for moisture. When planting a shade tree, consider planting it in a large mulch-covered island or planting a large bed of a drought-tolerant groundcover in an area the size of the anticipated mature canopy. Establishing the groundcover when the tree is young avoids root injury from later planting.

### **GIVE PLANTS ROOM TO GROW**

Densely planted shrubs are not only unattractive but also require more water. It's tempting to plant one-gallon size plants two feet apart so they are more visually appealing when young, but if they are projected to grow six feet wide, close spacing result in long-term problems.

When plants compete for space, they lose their individual form and become one big green blob. They also become prone to insect and disease problems and require more pruning.

Proper plant spacing saves time, money and water in the landscape. When selecting

plants, learn about their mature size, then give them the space to achieve their full potential without competing with their neighbors.

