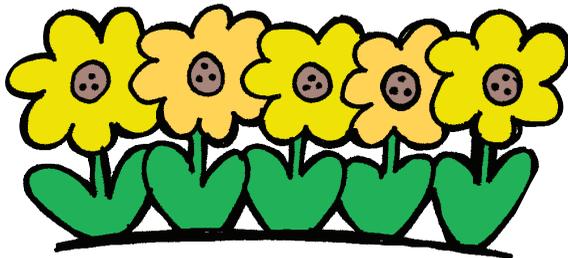


HOLD THE FERTILIZER

Granular fertilizers can dehydrate the roots of newly planted plants. Since plants are already stressed from the planting process, wait until they are established before fertilizing. Once established, lightly sprinkle a complete fertilizer, such as 8-8-8 or 10-10-10, along the perimeter of the planting hole. Compost incorporated into the soil at planting time adds nutrients and does not injure the roots like chemical fertilizers.

MULCH IS A MOISTURE MIZER

Applying 3 to 5 inches of mulch to the soil surface is an important step in the planting process. Mulches maintain a uniform moisture level in the soil and prevent weeds that compete with plants for water. Fine-textured mulches, such as pine straw, pine bark mulch, or shredded hardwood mulch, do a better job of conserving moisture in the soil than coarse-textured mulches, like large-nugget bark.



SIX SIMPLE STEPS TO A WATER-WISE ANNUAL FLOWER BED

1. Think small, but plan for high impact.

Small beds in high impact areas of the landscape provide eye-catching displays. Because seasonal color requires regular watering, limit the size of the bed to 50 square feet or less. A bed 50 sq. ft. in size can be watered efficiently with 3 gallons per day.

2. Raise the bed to assure good drainage and visibility of the display.

Elevate the bed 8 to 12 inches above the surrounding landscape.

3. Follow the 3/12 rule.

Place 3 inches of organic amendment on the soil surface and incorporate it to a 12-inch depth. Organic matter adds nutrients while improving soil tilth and water retention.

4. Recycle newspaper to hold moisture in the soil.

Soak newspaper briefly in a bucket of water and place two sheets thick on the soil before planting. Hide the newspaper by covering it with an organic mulch, like pinestraw, pine bark or hardwood mulch.

5. Place a slow-release fertilizer in the planting hole.

Time-released fertilizers, such as Osmocote, placed in the planting hole beneath the plant, provide season-long nutrients and do not injure the roots like granular fertilizers. Look for a product with an 8 to 9 month release duration.

6. Mulch with a fine-textured organic material.

Apply 3 to 5 inches of pine straw, pinebark mulch or shredded hardwood mulch on the soil surface to hold moisture in the soil.

**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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J. Scott Angle, Dean and Director



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Make Every Drop Count!

PROPER PLANTING RESULTS IN HEALTHY, WATER-EFFICIENT PLANTS

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%.



THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION
Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences

Planting ornamental plants correctly not only increases their survivability and performance in the landscape, it also helps them develop a vigorous, healthy root system that increases their drought tolerance during periods of limited rainfall. This publication provides research-based guidelines for proper planting.

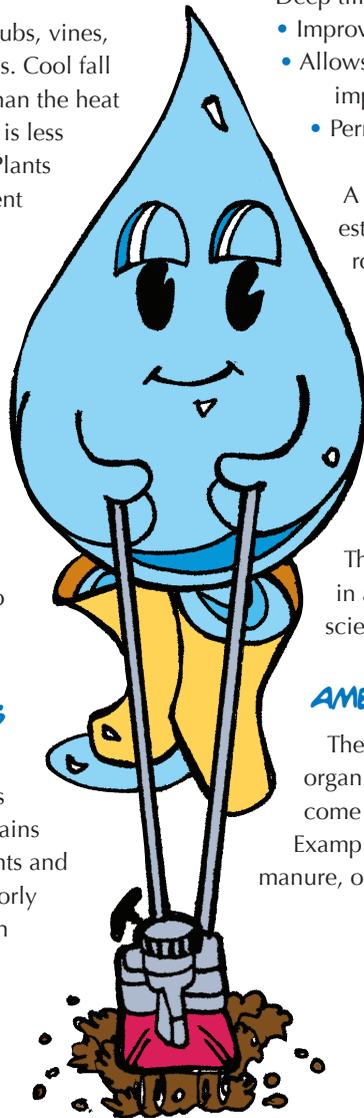
FALL PLANTING IS BEST

Fall is the ideal time to plant trees, shrubs, vines, groundcovers, and herbaceous perennials. Cool fall temperatures are less stressful to plants than the heat of late spring and summer because there is less evaporative water loss from the foliage. Plants established during fall require less frequent irrigation and are less likely to suffer sun scorch or heat-related stress than those planted in spring and summer.

Another advantage of fall planting is that above-ground portions of the plant stop growing and go dormant soon after planting, so there is less demand on the roots for water. Roots, on the other hand, do not go dormant and continue to grow all winter long. So when spring arrives, a healthy, well-developed root system will be in place to absorb water and nutrients

GOOD SOIL, GOOD ROOTS

An ideal soil for optimal plant health contains pores for good drainage and has good water holding capacity. It also contains some organic matter that supplies nutrients and improves soil structure and texture. A poorly drained or compacted soil can shut down a plant's root system, encourage disease problems, and cause runoff and wasted water.



To check soil drainage before planting, dig a hole approximately 15 inches deep by 15 inches in diameter and fill it with water. If water is left standing in the hole after 1 hour, the site may be poorly drained. If water remains in the hole for several hours, site improvements are needed.

Deep tilling the entire planting area:

- Improves soil structure
- Allows plant roots to grow without impediment
- Permits water to move freely throughout the soil to the roots

A good soil structure encourages rapid plant establishment and a healthy root system. As roots grow, they increase their ability to extract nutrients and water.

When planting a solitary plant in undisturbed soil, dig the planting hole at least two times wider than the width of the root ball. Research shows that a wide planting hole provides a favorable environment for root growth and results in rapid plant establishment. The old adage "never put a ten dollar tree in a two dollar hole" has been validated by science.

AMENDMENTS PAY DIVIDENDS

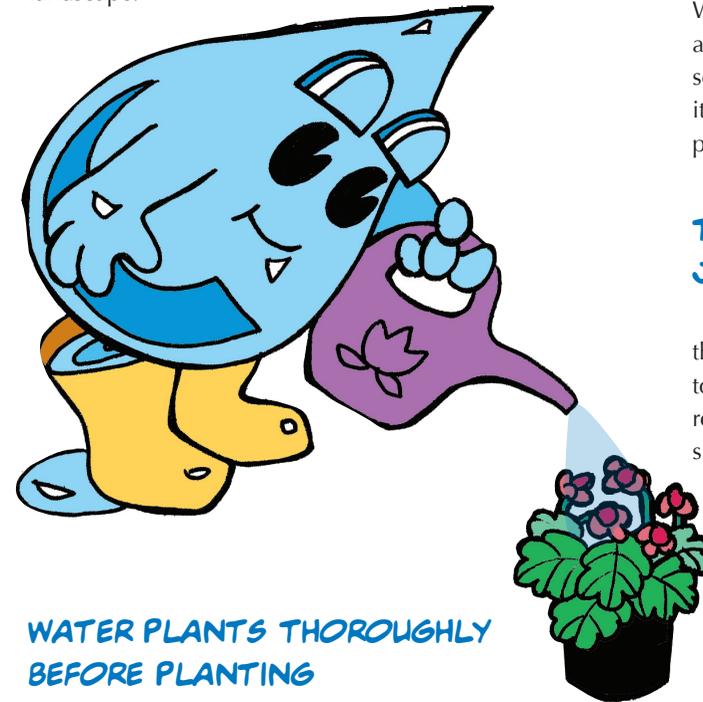
There are two types of soil amendments: organic and inorganic. **Organic amendments** come from something that was once alive. Examples are composted yard waste, livestock manure, or peatmoss. Organic amendments:

- Improve the water retention, oxygen infiltration, and nutrient-holding capacity of a soil
- Provide beneficial fungi and bacteria, earthworms, and other living organisms that improve nutrient availability and aeration of the soil

Inorganic amendments are either mined or man-made. Examples are vermiculite, perlite, pea gravel, shale, and coarse sand. They are used to improve the structure and drainage of a soil. Unlike organic amendments, these products have little nutritional value.

Apply organic amendments, 3 inches deep on the soil surface and incorporate them uniformly to a 12-inch depth. One cubic yard of organic matter per 100 square feet (14 – 2 cu. ft. bags) provide 3 inches on the soil surface.

If your soil dries out quickly or becomes rock hard when dry, add organic matter. It is one of the best investments you'll make in your water-wise landscape.



WATER PLANTS THOROUGHLY BEFORE PLANTING

The structure and texture of the soil in your landscape is different from the prepared media or field soil in which the plants were grown in the nursery. Therefore, it is difficult to re-wet a dry root ball once it is in the ground. To avoid this problem, always water plants thoroughly before removing them from their containers or burlap.

DON'T BE AFRAID TO ROUGH IT UP

When container-grown plants are removed from their pots, inspect the roots to see if they appear pot-bound (a mass of dense roots along the outer edge of the root ball). If so, use your hand or a knife to open up the root mass before planting. Although this may appear harmful to the plant, it actually encourages new root growth while allowing water to move freely into the root ball.

PULL BACK THE BURLAP

Some garden centers sell balled-and-burlapped (B&B) trees and shrubs at certain times of year. When planting B&B plants, cut the wire or cord around the trunk and pull the burlap off the root ball, so it does not impede root growth. On large trees, it may not be practical to remove all the burlap, but pull it away from the top one-third of the root ball.

TOO DEEP? TOO SHALLOW? JUST RIGHT?

Planting depth is critical. Always set the top of the root ball level with the soil surface. Planting too deeply may restrict oxygen movement to the roots, which results in root suffocation. Planting too shallow may expose roots to sun and wind which may cause them to dry out and die.

DON'T FORGET THE BERM!

Once plants are in the ground, use your hands to shape a shallow berm, 4 to 6 inches high, along the perimeter of the planting hole. This will help funnel water to the roots each time you water during the establishment period. Once the plant is established (4 to 6 weeks after planting), use a rake to pull the bermed-up soil outward and away from the planting hole. Otherwise, it may erode over the roots and cause root suffocation.