For Immediate Release

Contact: Grace Trimble 404-463-3192
or Kelley O'Brien 404-463-3259

Rain Gardens for Home Landscapes

Even though spring is still months away, it is not too early to think about how your garden can be the envy of your neighbors this spring. This year the University of Georgia Cooperative Extension Service and the Clean Water Campaign are teaming up to provide you with the information to construct rain gardens.

Rain gardens are natural landscape features that require less maintenance and fewer chemicals than lawns. Rain gardens capture runoff from impervious (impassable) areas such as roofs and driveways and allow it to seep slowly into the ground. Most importantly, rain gardens help preserve nearby streams and lakes by reducing the amount of runoff and filtering pollutants.

Rainwater naturally infiltrates through the soil in a constructed rain garden. This helps to filter out pollutants including fertilizer, pesticides, oil, heavy metals and other chemicals that are carried with the rainwater that washes off your lawn, rooftop and driveway.

Best Places to Locate Rain Gardens

Rain gardens are best located in natural depressions (low lying areas where water flows naturally). They should be sited at least 10 feet from a house or building. While they should not be next to building foundations, rain gardens near impervious surfaces such as driveways, patios and sidewalks help capture the runoff from these areas.

Avoid planting rain gardens on areas with steep slopes (sites with an elevation change of more than 12 feet down per 100 feet in length may not be suitable for rain gardens). Also, avoid planting rain gardens over a septic system. Rain gardens are not appropriate in areas where the seasonal high water table is within 24 inches of the soil surface because the water table will prevent infiltration.

How to Create a Rain Garden

1. Locate a site for a rain garden in a natural depression in the landscape.
2. Determine the size and shape of the rain garden. To calculate the size, consider the area draining to a rain garden, including the roof area or impervious area that drains to the downspout and the rain garden. The larger roof or impervious (hard) area and the slower that water infiltrates into the soil, the more area of a rain garden are needed.

   An effective rain garden depends on water infiltrating into the soil of the garden. Soils with a lot of clay will infiltrate water very slowly, so the size of a rain garden in clay soils should be 10-15 percent of the total drainage area. Sandy soils infiltrate water more quickly, so a rain garden in a sandy location does not need to be as large. For sandy soils, the rain garden in a sandy location does not need to be as large. For sandy soils, the rain garden size should be about 5-8 percent of the area draining to it. Loamy soils can be sized somewhere between 8 and 10 percent, keeping in mind that the slower the infiltration, the larger the area should be. It is important to know your soil before you start a rain garden project. To test the infiltration of your soil, dig a hole 6-8 inches deep in the area that the rain garden (infiltrates) into the soil. If any water stays in the hole for 12 hours or longer, then the soil is not suitable for planting a rain garden.

3. Once the rain garden is laid out, you can start digging. Begin removing the soil in the garden so that the deepest part is about 8-10 inches deep. The bottom of the rain garden should be as level as possible so some minor grading may be necessary. The extra soil removed from the rain garden should be used on the downhill side of the garden to create a berm, an earthen dam or barrier that will keep the water in the rain garden. The top of the berm should not be higher than the uphill edge of the rain garden (no more than 12 inches high). The rain garden should be designed to hold no more than 6 inches of water above the ground surface.

4. Mix organic matter into the soil within the rain garden by spreading 2 to 4 inches of compost over the area and mixing the organic matter in with the existing soil. For soils with high clay content, it may be beneficial to remove about 1-2 feet of the soil and replace it with a more porous "rain garden soil." A soil mix suitable for rain gardens is 50-60 percent sand, 20-30 percent topsoil, and 20-30 percent compost.

5. A shallow swale or corrugated drain pipe should be set up to carry the water from the roof downspout to the rain garden.

6. Establish a grass or groundcover border along the upper edge of the rain garden to slow down the runoff water as it enters the rain garden, and do the same over the berm to stabilize it as a border of the rain garden.

7. Select and plant drought tolerant, we tolerant and hardy plants. A mix of ornamental grasses, shrubs and self-seeding perennials are good choices. *See chart of plants.*

8. Once plants are in place, cover the garden with a 3" layer of mulch. Lighter mulches such as pine bark and straw will float in water and may be washed away to the edges of the garden. Better mulch choices for a rain garden are more dense materials such as pine straw, wood chips or shredded wood.

9. To maintain your rain garden, remove the weeds on a regular basis as the landscape plants grow, and replenish mulch as needed. As the plants in the rain garden mature, there will be less need for mulch and weeding. Rain gardens should be relatively low maintenance if the correct plants are chosen.

10. IMPORTANT NOTE: Plan on providing an "overflow" path for water to take if the rain garden fills and more rain comes. This path should be stabilized with a hard grass or groundcover.

What Plants to Use
Finding plants for your rain garden is not difficult. Many well-suited plants are available at your nearest landscaping supply store. Here are some suggested plants (common and *scientific* names):

Trees (these are effective n rain gardens that are larger than 150 square feet, plant trees at least eight feet apart)

Bald Cypress (*Taxodium distichum*)
Black Gum (*Nyssa sylvactica*)
Crape Myrtle (*Lagerstroemia idencia*)
Fringetree (*Chionanthus virgincus*)
River Birch (*Betula nigra*)

Shrubs
American Beautyberry (*Callicarpa americana*)
Buttonbush (*Cephalanthus occidentalis*)
Common Winterberry/Winterberry Holly (*Ilex glabra)*
Rose of Sharon (*Hibiscus syriacus*)

Wax Myrtle (Myrica cerifera)

Perennials, Grasses and Groundcovers
Asters (*Aster spp.*)
Blackeyed Susan (*Rudbeckia hirta*)
Blue Lobelia (*Lobelia siphiliticia*)
Cinnamon Fern (*Osmunda cinnamomea*)
Goldenrod (*Solidago flexicaulis*)
Joe-Pye Weed (*Eupatorium fistulosum)*
Red Columbine (*Aquilegia canadensis*)
St. John's Wort (*Hypericum fasciculatum*)

A complete list of plants can be accessed from the Clean Water Campaign website at www.cleanwatercampaign.com.

In order for a rain garden to be effective, it must be constructed properly. If you are uncertain about how to construct a rain garden, contact your local University of Georgia Cooperative Extension Service Office or the Clean Water Campaign. The University of Georgia Cooperative Extension Service and the Clean Water Campaign will be conducting rain garden workshops this winter. Registration is required. Call 404-463-3259 or visit online at www.cleanwatercampaign.com.

*The **Clean Water Campaign** is a cooperative, multi-agency public education initiative spearheaded by local governments in metro Atlanta, supported by the Metropolitan North Georgia Water Planning District and managed by the Atlanta Regional Commission. Its mission is to build awareness of water quality problems and solutions in the Atlanta region. For more information about the Clean Water Campaign, contact Kelley O'Brien at 404-463-3259.*

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