

Rain Gardens

a simple guide to
beautifying your home
and improving water
quality



Alabama Cooperative
Extension System

www.aces.edu/waterquality/mg.htm

What is a Rain Garden?



Rain gardens are beautiful natural looking gardens that capture storm water run off and allow it to

slowly seep into the ground. By capturing runoff, rain gardens decrease erosion, help recharge underground aquifers, protect near by lakes and streams from harmful pollutants and sediment, and can lower the risk of local flooding.



Rain gardens are large basins that collect and hold water that runs off impervious (hard) surfaces like your roof or driveway. The porous nature of the rain garden soil allows the water to infiltrate into the ground. While the plants, mulch and soil, in the garden trap pollutants and sediment.



The water will infiltrate in 1-2 days, which will decrease flooding and prevent mosquito development.

Where can I build a Rain Garden?

Rain gardens can be planted just about anywhere, but the best place for one is in a natural depression (a low lying area where water flows naturally) in a fairly flat part of your yard.

It is best to place your garden next to an impervious surface such as a driveway, patio, or sidewalk so it can catch run off. Rain gardens can also be placed near roof downspouts.



Rain gardens should be planted at least **10 feet** from houses and foundations to prevent flooding and slopes greater than **12%** are inappropriate for these gardens. Rain gardens should also **not** be planted on top of septic tank drain fields or where water pools in your yard. These areas have low infiltrations and can promote flooding and overwhelm your septic tank.

How do I build a rain garden?

1. Locate an appropriate site for your garden.

2. Determine the size and shape of your garden

- Rain gardens can be any size or shape, but to be effective they should be sized to accommodate the water from the drainage area.
- To calculate the size of the rain garden, get a rough estimate of the square footage (length x width) of the drainage area (roof, sidewalk, lawn, or driveway).
- Consider your soil types. If you have clayey soils your rain garden should be 60% of the drainage area, if your soil is sandy you should have 20% of the area. The less sandy your soil, the larger your garden needs to be.

Ex. You would like to build a garden to catch the run off from your roof. If the spout you choose drains $\frac{1}{4}$ of your 2000 sq ft roof and your soil is sandy. So $2000/4=500 \times 0.2=100$ sq ft. You will need a garden 100 sq ft in area.

*If you choose a rain garden larger than 300 sq ft, you should consult a landscape specialist, or build 2 smaller gardens.

*Remember that these are just suggestions any rain garden will help control storm water.

3. Use a rope to lay out the boundary of your garden with the longest side facing the source of water

4. Once the garden is laid out you can start digging (bring friends). The depth of your garden will depend on the slope of your landscape. For a rough guide:

- slope less than 4% - 3-5 in deep
- slope between 5-7 % - 6-7 in deep
- slope between 8-12% - 8 in deep

The bottom of your garden should be as level as possible. The dirt removed



from the garden can be used to create a berm or barrier on

the downhill side of the garden to keep water in the garden.

5. If you have poor soil (really sandy or really clayey) you may want to add organic matter or sand to your garden. Good rain garden soil will be 50-60% sand, 20-30% topsoil and 20-30% compost. The clay content should not be more than 10%.

6. You may wish to stabilize the borders or your rain garden (especially the berm) with sod, groundcover, or native grasses. This will also help slow the water as it enters the garden.

7. Choose plants and plant your rain garden. This is the fun part. Let your imagination go. You can choose a color theme or choose plants that will attract butterflies and hummingbirds.



We suggest using native plants, which are not only beautiful, but are tolerant to our weather and pests. A list of native plants is available at our website:

www.aces.edu/waterquality/mg.htm

You can even use your runoff as a water feature.



Ask your local landscape specialist for more great ideas.

8. Add 3in of hardwood mulch to your garden.

You may need to periodically water and mulch your garden until it gets established and then sit back and enjoy as your garden grows.



Information provided by: *Rain gardens for home landscapes*, University of Georgia Clean Water Campaign; *Rain Gardens*, University of Wisconsin-Extension; and *Designing Rain Gardens*, North Carolina Cooperative Extension Service.