

Build A Rain Garden

Rain, Rain Don't Go Away

'Cause I've Got A Rain Garden That's Here To Stay!

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Location, Location, Location

1. **Find the source** of the stormwater. A rain garden placed nearest the source of stormwater will have fewer problems with water moving forcefully into the garden.
2. **Measure the drainage area that sends water to the site.** The drainage area could be a parking lot, the driveway, the roof, or a sloping yard. If it is a roof, then measure the length and width of the foundation and multiply them or if you know the square footage, then you have what you need. Each downspout drains approximately 25% of the roof, so multiply that by the square footage and you will get the drainage area. If more than one site sends water to a trouble spot, add the area measurements together.
3. **Determine the site of the rain garden.** Rain gardens work best on flat ground, but also do well on elevated ground and even on slopes as long as the slope has less than a 10% grade. Choose a place that seems to fit naturally. It should have some sun during the day. Don't place a rain garden too close to trees or in spots that are constantly wet.
4. **Determine the type of soil.** Soil can be sandy, Silty or Clayey. Here in Georgia, it most likely will be mostly clay with a sandy loam mixed in. Loam is a mix of humus (decayed plant material) with the soil type. Do a perk test. Dig a hole about 8 inches deep, fill it with water and see how long it takes for the water to disappear. If it takes more than 24 hours, then this is not the place for a rain garden. If it perks, but is slow about it, then amending the soil in the garden will be important.

Build It

1. **Determine the depth of the Garden.** Most rain gardens are between 4 and 8 inches deep. First, determine the slope of the garden location. If the slope is less than 4% then the garden should be between 3 to 5 inches. If the slope is between 5 and 7% then make the garden 6 to 7 inches deep. If the slope is between 8 and 12%, the garden should be 8 inches deep. These numbers and the information in #2 below came from [Rain Gardens-A how-to manual for homeowners](http://www.clean-water.uwex.edu/pubs/raingarden), which can be viewed at www.clean-water.uwex.edu/pubs/raingarden.
2. **Determine the size of the Garden.** If your garden is more than 30 feet from a downspout and you have clayey soil, multiply .10 by the drainage area number and that will give the surface area of the garden.
Ex: 1,200sq.ft X .10 = 120 sq. ft.
For silty soil, multiply by .06 and for sandy soil, multiply by .03. For gardens between 6 & 7 inches deep if your garden is less than 30 feet from a downspout the number to use for clayey soil is .32, for silty soil .25 and for sandy soil .15. The width of your rain garden shouldn't be more than about 15 feet. Pick a size that fits based on the slope. Generally, the steeper the slope is the wider the garden. Once you pick the width then determine the length by dividing the size of the rain garden by the width. **Ex: 120 /10 = 12 ft** Mark you garden outline with a water hose/paint.
3. **Dig it.** As you dig out your garden, the key thing to remember is that it must be level in all directions. Dig it six to twelve inches deeper than the final depth and back fill with the soil you just dug out, amended if necessary. The water should come into the garden in a sheet flow and then spread out slowly over the whole garden area. Having a level garden will accomplish that. If the water approaches the garden in a stream, you should consider finding a way to spread it out so that it enters the garden in a sheet flow. You can use a French drain that is slightly recessed, leveled and anchored in the ground or a filter sock or a 6-inch or greater tree limb/trunk.
4. **Plant it.** Use native plants if at all possible. They are acclimatized to Georgia weather and will be able to handle the wet and dry extremes better than nonnatives. Plant it on the sparse side. This will give the plants room to grow without overcrowding in the first year.
5. **Mulch it.** I recommend double-shredded hardwood (red oak is good). Exotic mulches change the nature of the soil, affecting the organisms in the soil that help your plants.
6. **Watch it work!**