

Tips for Rain Gardens in Clay Soils

People around the state are experimenting with how to best prepare clay soils for rain gardens. Though there are not yet any hard and fast rules on site preparation for clay soils, here are some tips recommended by those who have tried it.

- In designing your garden dimensions, increase the surface area of your rain garden and correspondingly decrease the depth, to spread water out and allow a greater infiltration area. Try using a 2:1 ratio of the drainage area to the surface area of your garden (most rain gardens in better soils use approximately a 4:1 ratio). For instance, if your garden will be draining a 200 sq. ft. of rooftop, plan the surface area of your garden to be 100 sq. ft.
- Do all site preparation when the soil is dry. If the clay is damp, your shovels or excavation equipment will seal the pores of the soil and create a barrier to water infiltration. Excavating while dry maintains soil pores to a greater extent. After digging, rough up the bottom and sides to allow for more infiltration.
- If an initial percolation test shows that water does not drain properly from the site, excavate the site from one to four feet deep and fill the garden with sandy loam soil. Mix in 2 to 3 inches of compost near the surface.
- Remember, as the roots of your native plants grow, they will help to break up the soil and provide infiltration channels. You should expect to see better infiltration as your plants become more well established year after year. Certain plants may be better suited for clay soils than others – so be sure to consider soil type when choosing your plants.
- For any newly planted rain garden, young plants may be more susceptible to drowning if they are immersed in standing water for several days. You may want to create a notch in the berm of your rain garden to allow excess water to drain out if this happens. Once your plants become better established and the garden is draining more quickly, you can fill in this notch to restore your berm.

References:

http://www.public.coe.edu/McLoud/RainGarden/HowToCreateARG/Clay_Soil_Tips.htm