## Infiltration Rates for Natural Soil Types

Almost every soil has a certain percentage of sand, silt, and clay. This is referred to as the soil texture. Soil texture plays a role in how fast rain will soak into or percolate through the soil in a rain garden. Water will move through or soak into sandy soils a lot faster than clayey soils. Percolation tests and ribbon tests are used to estimate how fast the water will move through the soils in a rain garden area which influences sizing.

Information is available on estimated infiltration rates and different soil textures. Similar data for percolation rates is not readily available. However, infiltration rates closely mimic percolation rates. The following table relates soil texture to infiltration rates. Sandy soils will have faster infiltration rates in inches per hour and clayey soils will have slower infiltration rates. A textural triangle follows and shows the relationship between the amount of sand, silt, and clay and the soil texture name.

## **Soil Textures and Minimum Infiltration Rates**

Soil Texture	Minimum Infiltration Rates (inches per hour)
Sand	8.27
Sandy Loam	1.02
Loam	0.52
Silt Loam	0.27
Silty Clay Loam	0.06
Clay	0.02

Source: Rawls et al 1982. Infiltration rates provide an estimate of percolation rates.