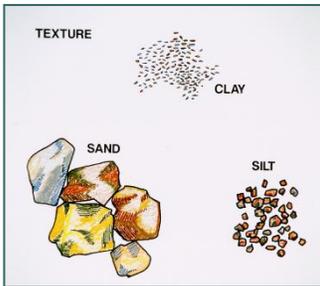
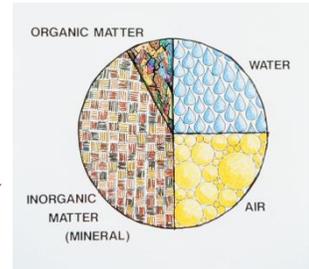


What's Your Soil Type?

What's Soil Made Of?

Good soil is a well balanced mixture of inorganic matter, organic matter, water and air. Everything you do to manage plants depends on the soil. The soil inorganic mineral matter is determined by the parent rock of the local geology. Here in Wichita, Kansas, we have limestone & shale because this area was once a shallow inland sea that has been uplifted and then eroded by wind & water. The local soils have a high pH (alkaline a.k.a. base) and once you're away from the river bottom land, the soil is more clay.



Soil Texture

Sand, silt and clay are the sizes of soil particles. Sand is the largest particle, and clay, being microscopic, is the smallest. The best soils are loams, which are a good balance between the three particle sizes. Soil texture is created by the amount each particle size mixed in a given soil. Texture is an important property of soil. It affects everything from crop productivity and nutrient requirements, to a soil's potential for erosion. Texture determines the soil pore size, which is the space between soil particles. When you know the texture, then you know how fast a soil will absorb

water, as well as, how much it will retain after the water is turned off.

Jar Test Soil Amending The

A jar test is a simple way to determine what type of soil you have.

To conduct a jar test, you will need:

- A 1 quart or larger size glass jar with lid
- A paper or plastic bag
- Water
- A ruler



1. Dig a small hole seven to twelve inches deep in several different spots around your home. Take a sample from the top down to the bottom of each hole and put it into the bag. Shake the bag vigorously to mix it all up.
2. Then, fill the glass jar 1/3 to 1/2 full with the soil mix. Add water until the jar is almost full and put the lid on tightly. Shake the jar until the soil and water are completely mixed and no clumps of soil remain to be seen. Set the jar aside.
3. Once the soil and water separate and the water on top is mostly clear, measure each of the three separate layers you see. The bottom layer will be sand. The next layer is silt and the top layer is clay. Then measure the total mass of soil from its top to the bottom of the jar.
4. Divide the sand measurement by the total to get a percentage of sand. Do the same with the silt and clay measurements.
5. Looking at a soil texture triangle, find the number along the bottom of the triangle for the percentage of sand in your soil. Mark that spot. Do the same for the silt and the clay. Following the diagonal lines, draw a straight line from each side of the triangle (sand, silt, clay) until the three lines meet. That will be the soil texture of your sample.

Amending The Soil

We would all love to have a loam soil, which is a ratio of around 40% sand, 40% silt and 20% clay. Many of us don't, yet, you can help your soil. Composted organic matter is the very best thing to add to bad soil. It makes sandy soils seem finer textured and clay soils coarser textured than they really are. Mixing in six inches of organic compost eight to twelve inches deep (the depth of most plant feeder roots-the ones used for water and nutrient uptake) will cause the soil to act more like a good loam. Test and amend soil as needed to create a deep, loamy, friable soil into which water can easily percolate. A good soil will let you use less water, making your landscape and garden more drought tolerant.

