

## **Soil texture Test**

Technique modified from Colorado State University, Extension Program for Master Gardeners

### **Background**

Texture refers to the size of the particles that make up the soil. The terms sand, silt, and clay refer to the relative sizes of the soil particles.

A coarse-textured or sandy soil is one composed primarily of sand-sized particles. A fine-textured soil is one dominated by tiny clay particles. The term loam refers to a soil composed of sand, silt, and clay particles.

We will determine whether a soil sample feels and looks like sand, silt, clay, or pebbles/gravel. If the sample contains more than one particle size, you can check as many as needed on your data sheet. There is also room to make additional notes for any information that is not captured by the checkboxes.

### **How to qualitatively assess texture**

Use a combination of the “feel” test and the “ball” test. Each provides different information.

#### **Feel test**

Moisten the soil sample. Rub the sample between your fingers.

- Sand feels gritty
- Silt feels smooth or slimy
- Clay feels sticky

#### **Ball test**

Squeeze a moistened ball of soil in the hand.

- Coarse-textured soils (sand or sandy loam)
  - will not form a ball or
  - will form a ball that breaks with even the slightest pressure
- Medium-textured soils (loams not heavily dominated by sand or clay)
  - form a ball that stays together, but change shape easily
  - form a ball that may break under moderate to heavy pressure
- Fine-textured soils (clayey or clayey loam)
  - form a sticky ball that changes shape and greatly resists breaking

#### **Pebble/gravel**

Pebbles and gravel are loose aggregations of rock fragments. Gravel is categorized by particle size, but for our purposes, if you feel have rock fragments in your sample, check pebbly/gravelly on the data sheet.