In-Class Soil Analysis Activities

SOIL TEXTURE ANALYSIS ACTIVITY – "RIBBON TEST"

STUDENT OBJECTIVE

Analyze Soil Texture by using a soil texture by feel Ribbon Test.

ACTIVITY DESCRIPTION

This is a practical in-class activity. This simple texture test helps the gardener determine the suitability of a garden soil for growing plants by feeling the soil.

DURATION

20-30 minutes

TOOLS AND SUPPLIES

- A palm size amount of soil
- Water

REFERENCE MATERIALS

- Determining soil texture using the ribboning technique
- Soil Texture by Feel

ACTION STEPS:

- 1. Identify soil by texture <u>flowsheet</u>
- 2. Follow the flowsheet to determine soil texture by feel

SOIL PH ANALYSIS ACTIVITY – "PH STRIPS"

STUDENT OBJECTIVE

Analyze Soil pH by using a commercial pH test strip.

ACTIVITY DESCRIPTION

This is a practical in-class activity. This simple texture test helps the gardener determine the suitability of a garden soil for growing plants.

DURATION

several minutes

TOOLS AND SUPPLIES

pH Strips

REFERENCE MATERIALS

Understanding Soil pH and nutrient availability

ACTION STEPS

Per commercial instructions

CONSIDERATIONS

SOIL PH QUESTIONS

- 3. Why do gardeners test soil pH?
- 4. How could a home gardener make their alkaline soil more acidic?

SOIL CARBONATES ANALYSIS

STUDENT OBJECTIVE

Analyze Soil for the presence of carbonates

ACTIVITY DESCRIPTION

This is a practical field activity. This simple test helps the gardener determine the presence of

carbonates in the soil. Excessive carbonate reduces the availability of micronutrients resulting in

chlorosis of new growth on many plants.

DURATION

10 Minutes

TOOLS AND SUPPLIES

- Fresh soil
- White Vinegar
- Small dish
- Dropper

REFERENCE MATERIALS

Free carbonate in soil buffers soil pH against acidification. Excessive carbonates can make it

very difficult to reduce high soil ph. It can also bind metals making them unavailable for plant

use.

ACTION STEPS

- 1. Place 1 tablespoon of soil into a small dish.
- 2. Add 2 to 4 drops of vinegar and look for effervescence.

CONSIDERATIONS

Make sure soil does not have free water, which may interfere with the test.