

Learning from Soil

Age: 4-5 grade

Time: 15-20 minutes

Group Size: any

By the end of this activity participants will identify nutrients that are in the soil and the importance of soil testing.

There are many types of soil and nutrients are naturally found in soils. Knowing what nutrients are in the soil help farmers only applying additional nutrients that are necessary for their plants to grow healthy. It is just as important for people to understand their lawn own soil and what is necessary to maintain their lawn.

Materials needed:

- Sample soil test results

Instructions

1. Have participants to take a minute and review the soil test results from the residential soil test.
2. Ask participants to find the answers. (In a large group or small groups)
 - a. What crop is the soil test for? (Lawn Maintenance – Bermuda, Zoysia fescue)
 - b. What nutrient does the lab recommended to apply? (lime)
 - c. How many pounds per acre of Potassium do the results show in the soil? (97 pounds per acre)
3. Have participants to review the agriculture soil test results.
4. Ask participants to answer the following:
 - a. What crops are the soil tests for? (Answer: Corn and soybeans)
 - b. What nutrients do the lab recommended to apply with sample 1C for soybeans next year? (Sulfur, Manganese, and Boron)
 - c. Why does this farmer switch corn to soybeans in different seasons? (explain benefits of crop rotation)
 - d. What is the pH of the soil in sample 3P? (4.8 pH)
 - e. Why is pH important? The correct pH for the correct crop allows the plants to take in nutrients.
 - f. How many pounds per acre of potash do the results recommend with sample 4C for growing soybeans? (50 pounds per acre)

Discuss with the participants the benefits of know what nutrients are in the soil and what crop will be growing in the soil. A few things that can be discussed:

1. Nutrients are already in the soil. From test results we know the fertilizer and amounts to apply to a field. Only what is necessary. This limits waste and costs.
2. Different crops require different amount of nutrients for optimal growth. It is important to know the soil to have the best yield results from the crop. This allows farmers to produce more food on fewer acres and is key to feeding our global population.