

Soil Nutrients Test

Soils are a mixture of minerals, water, air, organic matter, and the remains of once-living things. It forms at the surface of land and it is the “skin of the earth.” Soil is capable of supporting plant life and is very important to life on earth.

Soil has nutrients that plants need in order to live. Today we are going to test soil for 4 of these nutrients.

pH is a scale to determine whether a soil is ACID or ALKALINE. The scale is 14 points, so a 7 is right in the middle. #1 is Acid, and #14 is Alkaline.

Nitrogen is absorbed by plants through their roots and helps in making food for the plant.

Phosphorus is an element that is found in the ground and then taken up by plants and animals. Phosphorus starts in the rocks of the world. When it rains, the phosphates and other minerals are removed from the rocks and distributed in soils and the water all over the planet.

Potash ensures healthy and nutritious plant growth, and adequate supplies of potash must be maintained in the soil by the use of fertilizers. Potash makes a positive contribution to the environment by balancing other nutrients, especially nitrate, to make sure they are taken-up and used by plants efficiently so avoiding losses which might be harmful.

How to do the tests:

Collect 2 ½ - 3 cups of soil. Mark the location of the sample on your map. Pour your soil out on a clean surface and clean your soil by taking out rocks, grass, or other non-soil items. Try not to touch the soil with your fingers, you can use the gloves that are included. You can also use the craft sticks or toothpicks to help clean the soil. Use this soil for all 4 tests.

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Fill the comparator to the soil fill line with soil (both chambers). Fill both chambers with distilled water to the line. Shake. Wait one minute and read results. Record them below.

Nitrogen, Potash, and Phosphorus Tests (use the same procedure for all three):

- Put ½ cup of soil in the large container
- Put 2 ½ cups of water in the container; shake for one minute
- set this mixture aside for 30 minutes or up to 24 hours

Performing the tests

- Fill both chambers of the Comparator with only water (undisturbed) to the fill line using the dropper
- Open the appropriately colored capsule and pour the contents into the test chamber (the smaller chamber of the two)
- Shake the container
- Wait 10 minutes
- Record your results

Soil Test Results:

Record your results below, refer to the chart, and pick a plant that likes your pH level

<u>Nutrient</u>	<u>Result</u>	<u>Plant</u>
pH	_____	_____
Nitrogen-N	_____	
Phosphorus-P	_____	
Potash-K	_____	

