



Partners with Gardeners Since 1932™

How to Test Soil

Soil testing is highly recommended for gardens, potted plants, and lawns every year. If your soil does not contain the proper nutrition for your plant, your plants will not produce its maximum yield (vegetables, fruit, foliage or flowers). [The Soil Master™ Soil Testing Kit](#) is designed to be easy to use and accurate. The test kit instructions are illustrated and very easy to follow.

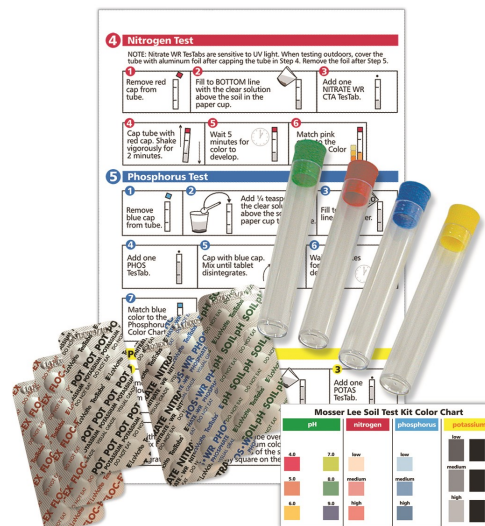
Products You'll Need



[Soil Master Soil Testing Kit](#)

Supplies You'll Need

- Paper Cup
- Measuring Spoons
- Plastic Spoon
- Timer
- Soil Sample
- Distilled Water



Read this before you begin

1. Read all instructions thoroughly before running the tests.
2. Wash hands thoroughly both before and after running the test procedures. Do not touch the soil with your hands unless necessary. Avoid fertilizer dust.
3. The reaction tablets either alone or reacted with a sample, are not a health hazard. However, the tablets should not be ingested.
4. Tablets contain chemicals. Use with adult supervision. Keep out of reach of children.
5. Do not remove tablets from the foil strip until you are ready to use them.
6. Always use the test tube cap to close the tube. Never use your finger as this exposes your skin to the chemicals and you also may contaminate the sample.
7. All reacted test samples can be discarded by pouring down the drain with lots of running water. Dispose of treated soil samples in the trash.
8. Distilled water will give the most accurate test results. It has a neutral pH of 7.0. If your tap water is acid or alkaline in nature, your test results may be affected.
9. Test results are calibrated to the times in the instructions and variation will cause errors in the results.
10. Do not view the test results in direct sunlight.
11. The sample test results may develop a color that is in between two-color values on the color chart. In this case, your result may be interpreted as mid-range, for example low-medium or medium-high.
12. Thoroughly rinse the tubes and caps after each use. Allow to air dry before storing. Then, they will be ready for the next time that you test your soil. Store kit out of direct sunlight and in a dry place.

Each set of the four quality components (pH, Nitrogen, Phosphorus, and Potassium) assesses a garden or lawn area of about 3 feet by 3 feet. There are 40 tests (10 tests of each component) in this kit, enough tests for 90 square feet of garden or lawn. **Hint:** Consider several sampling areas in your garden designated for plant varieties with different soil requirements (e.g. tomatoes vs corn) so you will know what soil amendment is necessary to feed each plant properly.



BIGGER VEGETABLES
FASTER SEED GERMINATION

Garden Soil Testing Kit

EASY • ACCURATE • 5 MINUTE RESULTS

Soil Master

Mosseslee
brings your plants to life

pH Testing Procedures

The pH test uses the dried soil, while the other tests use the liquid solution extracted in the Preparing the Soil Sample process.

1. Remove the green cap from the tube.
2. Fill the tube to the 10 mL line with water.
3. Add one Soil pH tablet.
4. Use the green test tube cap to add one capful of soil to the tube.
5. Cap the tube with the green cap and mix by inverting the tube 10 times.
6. Let the soil settle for one minute or until a clear, colored solution is visible above the soil layer. Some tiny particles of the Soil pH tablet may be visible once the tablet disintegrates. These particles will not totally dissolve and will not affect the test results.
7. Match the liquid color to the color chart for the result.



Preparing the Soil Sample

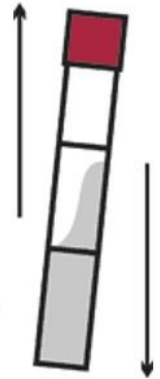
The clear liquid extracted from this sample will be used for the remaining tests Use a clean trowel or knife to collect the sample from a depth of 6-8 inches.

1. Spread the sample on a piece of paper to air dry at room temperature, **preferably overnight**. Do not attempt to dry in an oven or microwave.
2. Remove and discard leaves, sticks, stones, etc.
3. Crush any lumps to achieve a more uniform sample size using the back of a spoon.
4. Measure 2 tablespoons of distilled water into a paper cup.
5. Add two FLOC EX tablets and stir with a spoon until the tablets break apart and disintegrate. **An exclusive Soil Master™ additive, this tablet quickens the soil separation.** Without it, heavier and clay soils can take hours to separate.
6. Add one teaspoon of soil to the cup, stir for one minute
7. Allow the cup to sit for one minute or until the soil settles to the bottom of the cup.
8. Pinch the top of the cup together to form a spout. The clear liquid above the soil is the solution used to test for Nitrogen, Phosphorus, and Potassium.

Nitrogen Testing Procedures

The Nitrogen tablets are sensitive to UV light. When testing outdoors, cover the tube with aluminum foil after capping the tube in step 4 and remove the foil after step 5.

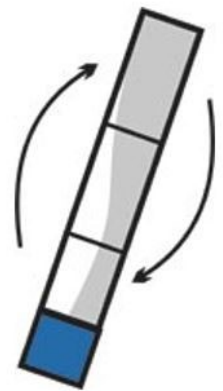
1. Remove the red cap for the tube.
2. Fill to the 5 mL line with the clear solution above the soil in the paper cup.
3. Add one Nitrate CTA tablet to the tube.
4. Cap the tube with the red cap and **shake tube vigorously** for 2 minutes.
5. Wait 5 minutes for the color to develop. Some tiny particles of the tablet may be visible once the tablet disintegrates. These particles will not totally dissolve and will not affect the test results.
6. Compare the color of the solution to the Nitrogen Color Chart.



Nitrogen is easily leached from the soil by rain and snow. Readings may be much lower than expected, particularly in sandy soils.

Phosphorus Testing Procedures

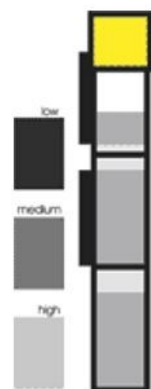
1. Remove the blue cap from the tube.
2. Add $\frac{1}{4}$ teaspoon of the clear solution above the soil line in the paper cup to the tube.
3. Fill to the 10 mL line with distilled water. This dilutes soil solution for a proper reading.
4. Add one Phosphorus tablet to the tube.
5. Cap with the blue cap.
6. Invert the tube repeatedly allowing the air bubble to travel from one end of the tube to another. **Do not shake vigorously**. Mix until the tablet disintegrates, although tiny particles of the tablet may be visible once the tablet disintegrates. These particles will not totally dissolve and will not affect the test results.
7. Wait 5 minutes for the color to develop
8. Compare the color of the solution to the Phosphorus Color Chart.

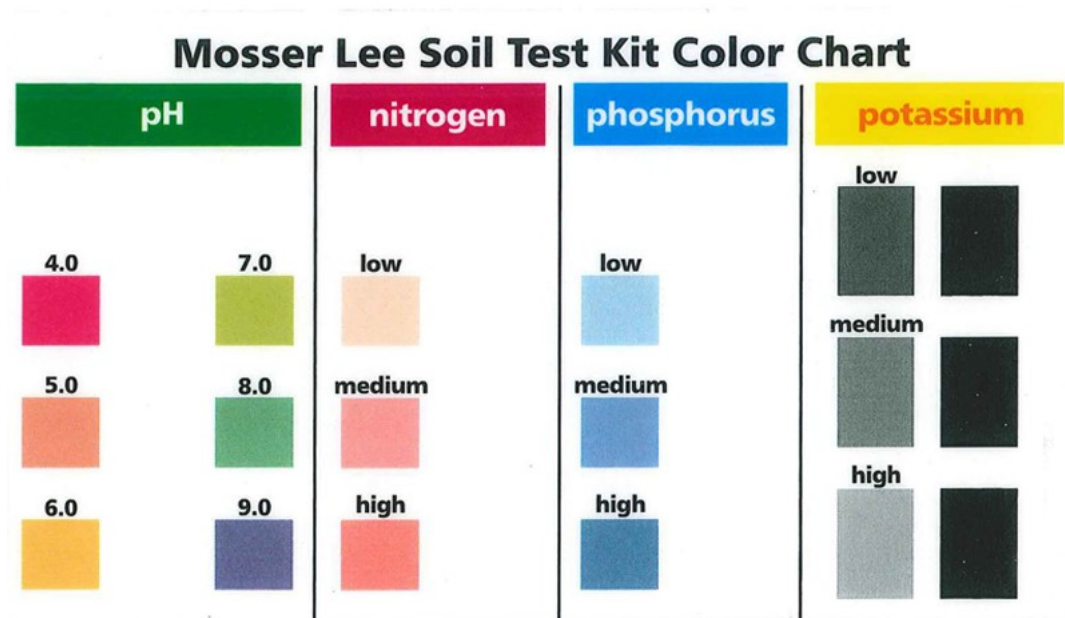


Potassium Testing Procedures

The chemical reagent in the potassium test produces cloudiness in the sample, based on how much potassium is present. The cloudiness is matched to the chart to determine that amount of potassium in the soil.

1. Remove the yellow cap from the tube.
2. Fill to the 10 mL line with the clear solution above the soil in the paper cup.
3. Add one Potassium tablet.
4. Cap with the yellow cap and mix until the tablet disintegrates by inverting the tube repeatedly allowing the air to travel from one end of the tube to another. **Do not shake vigorously**. Some tiny particles of the tablet may be visible once the tablet disintegrates. These particles will not totally dissolve and will not affect the test results. |
5. Hold the tube over the black squares on the Potassium color chart.
6. Match the cloudiness of the solution in the tube to a gray square on the Potassium color chart. By placing the reacted tube over the solid black squares, the degree of cloudiness can be determined. Compare the "fuzziness" of the tube to the gray squares. Ignore any yellow or brown color that may be in the sample.





Interpreting Your Results

- The Nitrogen, Phosphorus and Potassium tests measure the amount of those nutrients that would be "available" for the plant to use. Some of these nutrients may be "bound" or insoluble in a form that is not readily available for the plant to use.
- The soil pH can also affect the nutrient availability to the plant. A pH that is too high or too low can make some nutrients insoluble, and therefore unusable by plants.
- Soils with high clay content often trap nutrients in between the clay particles, slowing the availability of the nutrient to the plant.
- These tests are not designed to test actual fertilizers, but rather designed to test the pH level and nutrient availability of soil.
- The results of the nutrient tests are reported as relative test amounts of Low, Medium, and High. The following approximate values may be assigned to these amounts determined in the test.

Nutrient	Level	lb per 100 sq ft	lb per acre
Nitrogen (N)	Low	0.09 lb	40 lb
	Medium	0.37 lb	160 lb
	High	0.73 lb	320 lb
Phosphorus (P)	Low	0.02 lb	8 lb
	Medium	0.06 lb	20 lb
	High	0.15 lb	64 lb
Potassium (K)	Low	0.09 lb	40 lb
	Medium	0.18 lb	80 lb
	High	0.37 lb	160 lb



The Soil Master Soil Testing Kit will help you identify the nutrient content of your soil and determine the nutrients needed to grow healthy plants. Providing the proper level of nutrients will result in better plant development, growth, and health. Excessive use of nutrients in addition to being wasteful, can be harmful to plants and the environment.

[Click Here for a Free Test Results Log](#)

[Click Here for a List of Plants / Nutrient Levels](#)

Share Your Experience with Us

We would love to see your creations. Make sure you tag us on Social Media and upload your creations to the Your Creations Gallery. Visit us on Social Media

facebook.com/mosserlee
instagram.com/mosserlee/
pinterest.com/mosserlee/

Mosser Lee W6585 County Road O, Millston, WI 54643 - 715-284-2296
mosserlee.com

