

THE IMPORTANCE OF PH

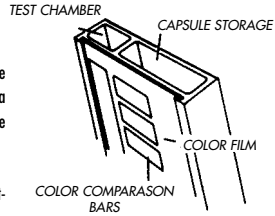
Soils are known as "sweet" if they are alkaline and "sour" if they are acid. Values of pH 7 indicate a neutral soil; above pH 7 is alkaline and below pH 7 is an acid soil. Most soils are within a range of highly acidic pH 4 to alkaline a pH 7.5 to 8. If you wish to grow plants not suited to the pH of your soil, you can change the pH. You can make an acid soil more alkaline by adding lime. Slightly acid soils can be made more acid by adding peat, or sulphate. It is, however, more difficult to convert an alkaline, lime-rich soil into an acid soil.

pH affects the availability of plant foods - N, P and K - and prevents the spread of soil borne diseases. Check it regularly - at least twice a year - because nature tends towards the acid side.

Working with your soil - not against it - will help you achieve more successful results. Any changes in pH should be small scale - 1/2 to 1 unit at the maximum.

THE UNIQUE COLOR COMPARISON SYSTEM

This new, easier-than-ever rapitestSM Soil pH Test is designed for simplicity of use and accurate results. At the heart of the new system is a specially designed patented testing device called a "color comparator". The comparator has a removable film color chart. Testing capsules are placed in a poly bag. A dropper is also provided to facilitate transferring water into the test chamber.



WHEN TO TEST YOUR SOIL

Testing your soil should be routine when preparing beds (Fall), before planting (Spring) and periodically during the growing season.

PREPARING YOUR SOIL SAMPLES

For lawns, annuals or house plants, take the soil sample from about 2-3" below the surface. For perennials, shrubs, vegetables and fruit, the sample should be from 4" deep. Avoid touching the soil with your hands. Test different areas of your soil, as it may vary according to past cultivation, underlying soil differences or a localized condition. It is preferable to make individual tests on several samples from different areas, than to mix the samples together. Place your soil sample into a clean container. Break up the sample with a trowel or large spoon and allow it to dry out naturally. This is not essential, however it makes working with the sample easier. Remove any small stones, organic material such as grass, weeds or roots and hard particles of lime. Then crumble the sample finely and mix it thoroughly.

NOW YOU'RE READY TO MAKE YOUR pH TEST:

1. Remove the cap from the comparator and take out the package of capsules. Make sure the color chart (film) is in place.
2. Fill the test chamber to the soil fill line with sample soil.
3. Holding the capsule horizontally over the test chamber, carefully separate the two halves of the capsule and pour powder into the test chamber.
4. Using the dropper provided, add water (preferably distilled) to water fill line.
5. Fit the cap onto comparator, making sure it is seated properly and caps tightly. Shake thoroughly.
6. Allow soil to settle and color to develop for about a minute.
7. Compare color of solution against pH chart. For best results allow daylight (not direct sunlight) to illuminate the solution.

ADJUSTING pH

pH can be adjusted to provide more suitable growing conditions for the different plants you wish to grow. Or, you can leave the pH of the soil as it is and select plants that like the level revealed by your test.

Once you have your pH reading, check the enclosed pH Preference List for the pH levels of over 450 popular plants, trees, shrubs, vegetables and fruits.

If your pH reading differs significantly from the list's recommended levels, follow instructions below for adjusting soil pH. You can correct pH at any time of the year but it is best to start in the Fall and check progress in the Spring. Altering pH does take time, so do not expect an immediate change. After working to adjust your soil, retest for pH level in 40-60 days. If results are still significantly off, retreat your soil, not exceeding recommended application levels. Allow one month to pass between adding lime and adding fertilizers.

ADJUSTING SOIL pH

Material	pH Change	Sandy	Loamy	Clay
Dolomitic or calcic limestone	+1/2 unit (0.5 pH)	2 1/2	5	5 1/2
	+1 unit (1.0 pH)	5	8 1/2	11
Hydrated Lime	+1/2 unit (0.5 pH)	1 1/2-2	3-4	4-4 1/2
	+1 unit (1.0 pH)	3 1/2-4	6-6 1/2	8-8 1/2
Iron Sulfate	-1/2 unit (0.5 pH)	3/4	1 1/2	2
	-1 unit (1.0 pH)	1 1/2	3	4
Aluminum Sulfate	-1/2 unit (0.5 pH)	1/2-3/4	1-1 1/4	1 1/2
	-1 unit (1.0 pH)	1-1 1/4	2 1/4	3

Amounts listed are pounds per 100 square feet. *Do not add more than 5 lbs. of lime or 1/2 lb. of sulfur in one application.

RECOMMENDATIONS FOR LAWNS

For a new lawn, pay special attention to soil preparation before planting. Proper soil preparation for any size lawn will have a significant impact on the amount of water and care it demands in the future. Till the soil to a depth of at least 12" and incorporate plenty of organic material (9" or more). Test your soil for pH and adjust to the levels in the following chart for your type of grass. Refer to the above chart under "adjusting pH", for recommended lime or sulfate applications.

Turfgrass	pH	Kentucky Bluegrass	pH
Bahiagrass	6.5-7.5	St. Augustine	6.0-7.0
Bermuda Grass	6.0-7.0	Tall Fescue	6.5-7.5
Canada Bluegrass	5.5-6.5	Velvet Bent	6.0-7.0
Centipedegrass	4.5-5.5	Zoysia	5.0-6.0
			6.0-7.0

CLEANING & STORAGE

Dispose of the test solution by rinsing down the sink. Remove the color chart. Wash the comparator and cap in warm, soapy water immediately after each use. Make sure any sediment or color staining is removed. Rinse well and dry. Replace the color chart on the comparator.

The poly bag of capsules should be stored inside the comparator, after it has been washed and dried. Replace all the components back into the package. The slide blister has been designed to be reused as a storage container. Store your kit indoors in clean dry conditions.

SAFETY

The test materials are safe when used as directed. However, keep out of reach of children & pets. Avoid contact with skin & eyes. In case of contact with eyes, rinse immediately with plenty of water. If swallowed, drink large amounts of water. Keep away from food, water and animal feed. When using, do not eat, drink or smoke. Wash hands immediately after use.