



No. 1835

rapitest[®] Digital 3-WAY ANALYZER

The Rapitest Digital 3-Way Analyzer
Takes the Guesswork Out of Gardening!



FOR USE IN SOIL ONLY. DO NOT USE IN LIQUIDS.

Important Information Regarding Your New Digital Analyzer

These instructions cover all aspects related to the analyzer's function and will help guide you to experiencing the proper temperature, pH and fertility range for the plants you intend to grow.

Before Testing the Soil

If you are preparing to plant a bed of plants or shrubs, or to plant a crop of fruits and vegetables, or to put out grass seed, you will find it beneficial to sample and test the soil in a number of locations in the area to confirm that the soil is warm enough for what you want to plant, that the soil's pH is generally consistent over the entire area and that it is within the plant's pH range.

Basic Operating Instructions

Step 1. Press the power button to turn the meter on and off.

Step 2. Press the arrow keys to change the test function.

Step 3. The test function in use is indicated by the blinking arrow on the meter face.

Step 4. When not in active use, the meter will turn itself off after about four (4) minutes to preserve battery life.

How to Use Your Meter to Measure pH

Step 1. Remove the top 2" of the surface soil. Break up any soil clumps to a depth of 5". Remove stones or organic debris such as leaves and twigs because they can affect the final result.

Refer to Chart C.

Chart C. Soil Fertility Ranges

The standards by which the instrument is calibrated are as follows:

	Too Little	Ideal	Too Much
	0-2	3-7	8-9
Nitrogen	50 ppm	50 - 200 ppm	200 ppm
Phosphorous	4 ppm	4 - 14 ppm	14 ppm
Potash	50 ppm	50 - 200 ppm	200 ppm

If the Tester Reads "Too Little"

- Liquid feed with a brand of soluble fertilizer that is recommended for the plants you intend to grow.
- Liquid feed within 3 weeks after planting or potting and do this every month whenever you water your plants.

If the Tester Reads "Ideal"

- Water once a month with a soluble fertilizer that is recommended for the plants you are growing.

If the Tester Reads "Too Much"

- Water thoroughly to leach out the excess fertilizer from the soil.
- For potted plants, repot with new soil.
- For greenhouse plants water thoroughly to leach excess fertilizer from the soil.
- Do not add any fertilizer. You can add manure, compost, clippings, plant wastes, residues, leaves and any other organic matter to the soil.

The Value of Phosphorous

Growing plants need phosphorous. It is the major constituent of plant genetics and seed development. A deficiency causes stunted growth and seed sterility. Phosphorous aids plant maturity, increases the seed yield, increases fruit development, increases vitamin content and aids the plant's resistance to disease and winterkill. The best source of phosphorous is phosphate rock, when it is finely ground. Bacteria that thrive in pH 6.5 to pH 7 help breakdown the phosphorous making it available to plants. Other sources of phosphate are bone meal, cottonseed meal and activated sludge. Barring any great deficiencies, a pound of phosphate rock for every ten square feet of your garden space is a goodly amount to apply once every two or three years. Phosphorous has the tendency to "grab" hold of the soil. In this manner, phosphorous is not easily leached from the soil as is nitrogen and potash.

The Value of Potassium (Potash)

Potash strengthens the plant. It helps form carbohydrates and promotes protein synthesis. It further aids early growth, stem strength and cold hardiness. Plants deficient in potash are usually stunted and have poorly developed root systems. Leaves are spotted, curled and appear dried out at the edges. Yields for potash deficiency are low. Sources for potash are plant residues, manures, composts and natural sources like granite dust, basalt rock or greensand, wood ashes, leaves and seaweed.

