

### How To Test Your Soil:

Each test and capsule is color-coded: Green = pH, Purple = Nitrogen, Blue = Phosphorus, Orange = Potash, with a separate color bar to compare your results.

#### pH Test Only:

Take a soil sample from about 4" below the surface.

1. Remove cap from one of the the green capped tubes. Remove the green capsules.
2. Fill tube with soil to the first line.
3. Carefully open a green capsule and pour powder into the tube.
4. Add water (preferably distilled) to the fourth line.
5. Cap tube and shake thoroughly.
6. Allow soil to settle and color to develop for about a minute.
7. Compare color of solution to the pH color chart. Repeat for remaining capsules.

#### N, P, & K Tests:

Take a soil sample from about 4" below the surface. Fill a clean jar or can with 1 part soil and 5 parts water. Thoroughly shake or stir the soil and water together for at least one minute and then allow the mixture to settle out for at least 10 minutes.

1. Remove the cap from the tube. Remove colored capsules. (Please note that the color of the capsules should match the color of the tube cap.) Fill the tube to the fourth line with liquid from your soil mixture. Avoid disturbing the sediment.
2. Carefully separate the two halves of one of the capsules previously removed from the tube. Pour the powder into the tube.
3. Cap the tube and shake thoroughly. Allow color to develop for about 10 minutes.
4. Compare color of solution to the appropriate portion of the plant food color chart. (For best results allow daylight, not direct sunlight, to illuminate the solution.)

Note your results. Repeat for remaining capsules.

#### Recommendations for pH Tests:

Acidity/alkalinity controls the plant foods available in the soil and can be adjusted to provide more suitable growing conditions for the different plants you wish to grow. Altering pH does take time, so do not expect an immediate change. After adding lime or sulfate to your soil, retest for pH level in 40-60 days. If results are still significantly off, re-treat your soil, not exceeding recommended application levels.

**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. Store unused capsule in test tubes after they are completely dry, in cool, dry location.

### Check your results with the pH levels of these popular plants.

#### VEGETABLES

	pH Range		pH Range
Beans	6.0-7.5	Onion	6.0-7.0
Cabbage	6.0-7.5	Potato	4.5-6.0
Carrot	5.5-7.0	Tomato	5.5-7.5
Lettuce	6.0-7.0		

#### FLOWERS, TREES, SHRUBS, ANNUALS

	pH Range		pH Range
Azalea	4.5-6.0	Petunias	6.0-7.5
Carnation	6.0-7.5	Pansies	5.5-7.0
Chrysanthemum	6.0-7.0	Magnolia	5.5-7.0
Daffodil	6.0-6.5	Roses	5.0-6.0
Geraniums	6.0-8.0	Sweet Pea	6.0-7.5
Hydrangea blue	4.0-5.0	Rhododendron	4.5-6.0
Hydrangea pink	6.0-7.0		

#### TURF GRASSES

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

#### ADJUSTING SOIL pH

Material	pH Change	Sandy	Loamy	Clay
Dolomitic or calcic limestone	+½ unit (0.5 pH)	2½	5	5½
	+1 unit (1.0 pH)	5	8½	11
Hydrated Lime	+½ unit (0.5 pH)	1½-2	3-4	4-4½
	+1 unit (1.0 pH)	3½-4	6-6½	8-8½
Iron Sulfate	-½ unit (0.5 pH)	¾	1½	2
	-1 unit (1.0 pH)	1½	3	4
Aluminum Sulfate	-½ unit (0.5 pH)	¾-¾	1-1½	1½
	-1 unit (1.0 pH)	1-1½	2½	3

Amounts listed are pounds per 100 square feet. \*Do not add more than 5 lbs. of lime or ½ lb. of sulfur in one application.

#### RECOMMENDATIONS FOR N, P, AND K RESULTS

	VERY LOW			LOW			MEDIUM			HIGH
	N	P	K	N	P	K	N	P	K	
Lawns	22-22½	¾-1	4½-5	14-14½	1-1½	2½-2½	3¾-4	0	0	NOT NEEDED
Fruits	14-14½	6½	13½-14	7¾-8	4-4½	8¾-9	3¾-4	2½	4½-5	
Flowers	14-14½	6½	13½-14	7¾-8	4-4½	8¾-9	3¾-4	2½	4½-5	
Shrubs (flowering)	14-14½	8¾-8¾	13½-14	7¾-8	4-4½	8¾-9	3¾-4	1-1½	4½-5	
Shrubs (foliage)	22-22½	10½-10½	8¾-9	14-14½	5½-5½	4½-5	3¾-4	2½	2½-2½	
Vegetables (root)	14-14½	12-12½	8¾-9	7¾-8	6-6½	4½-5	3¾-4	3	2½-2½	
Vegetables (leafy)	28½-29	10½	8¾-9	14-14½	5½-5½	4½-5	7¾-8	2½	2½-2½	
Trees	14-14½	10½	8¾-9	7¾-8	5½-5½	4½-5	3¾-4	2½	2½-2½	
General Feeding	22-22½	8¾-8¾	8¾-9	10½-11	4-4½	4½-5	3¾-4	1-1½	2½-2½	

The amounts in chart are in oz. /100 sq. ft. (Ounces referred to are by weight, not volume.) The recommendations are based on the following fertilizer sources: Nitrate of Soda (16% N), Triple Superphosphate (46% P<sub>2</sub>O<sub>5</sub>) and Muriate of Potash (60% K<sub>2</sub>O)

Look for the larger #1601 rapitest® Soil Test Kit with the patented color comparator testing system.