

HOW TO MAKE TRUOG SOIL REACTION TESTS

1. In laboratory testing add two drops of Reagent No. 697-27 Triplex Indicator to a cavity of the No. 697-24 Test Plate. With the spatula, add gradually just enough of dry pulverized soil to absorb the indicator (no more, no less). Then mix thoroughly with the spatula and finally move the soil to one side of the cavity and smooth off the sloping surface with the spatula. If proportion of indicator solution to soil is correct (very important), the surface will be moist with a film of the solution and only a trace of the solution will collect at the bottom of the cavity.

2. Immediately cover the moist soil surface with a film of No. 697-26 Soil Reaction Powder by holding the container about two inches above the soil surface and tapping the bottom with your fingers or a small object. Add just enough powder, but no more than necessary, to cover the soil surface uniformly and completely so that the color of the soil is entirely hidden.

3. Two minutes after applying powder, compare the color assumed by the powder with the standard color chart by sliding the color edge of the chart over the colored powder. After making the closest match possible, read off the corresponding pH to the right, estimating to 1/10 pH.

In field testing it may be more convenient to place the soil in the cavity of the Test Plate (about one-fourth full) before the indicator is added.

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No. 697-28C

TRUOG SOIL REACTION (pH) AND LIME CHART

One ton per acre equals 46 pounds per 1000 sq. ft. For loams and clays, one-half of pounds per acre equals parts per million. Use lime hydrate in one-half to one-third the amounts indicated for ground limestone.

Color and pH Scale Using Triplex Indicator			At pH 6.5 and above lime is not needed. A pH range 6.5 to 8.0 is favorable for all plants except a few (acid-loving). At pH 8.5 and above sodium carbonate is present causing black alkali, and, if excessive, treatment to lessen its concentration may be necessary for satisfactory plant growth.	Tons Per Acre Ground Limestone Needed to Raise pH to 6.5
Color	pH	Reaction		
	8.5	Alkali (Sodium Carbonate)		
	8.0	Alkaline (Calcium Carbonate)		
	7.0	Neutral		
	6.5	Very Slightly Acid	When Following Soils are Light Colored*	
	6.0	Slightly Acid	Sandy Soils	2
			Loams and Clays	3
	5.5	Medium Acid	Sandy Soils	3
			Loams and Clays	5
	5.0	Strongly Acid	Sandy Soils	4
			Loams and Clays	7
	4.5	Very Strongly Acid	Sandy Soils	5
			Loams and Clays	9
	4.0	Extremely Acid	Sandy Soils	6
			Loams and Clays	11

*If soils listed are dark colored (often prairie and low lying), increase all tonnages for sandy soils by one ton and for loams and clays by two tons. Apply same tonnages for mucks and peats as for dark colored loams and clays.