



CAPE COD COOPERATIVE EXTENSION  
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# SOIL SUBMISSION FORM

For office use only

MASTER GARDENER  
 ASSOCIATION OF CAPE COD

## CAPE COD COOPERATIVE EXTENSION

Name: \_\_\_\_\_ Date Received: \_\_\_\_\_

Address: \_\_\_\_\_ Town: \_\_\_\_\_ Zip: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

**No cost for testing/5 sample limit**

Sample Id	Crop	pH Results	Optimum Range	Remarks
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**Remarks: Only if Noted Above**

- A. No Limestone or wood ashes needed this year.
- B. pH is above optimum range for crop listed.
- C. pH is below optimum range for crop listed.
- D. Retest in 6 months.

**Additional Comments**

Reviewed by: \_\_\_\_\_

**Russell Norton, Extension Educator**

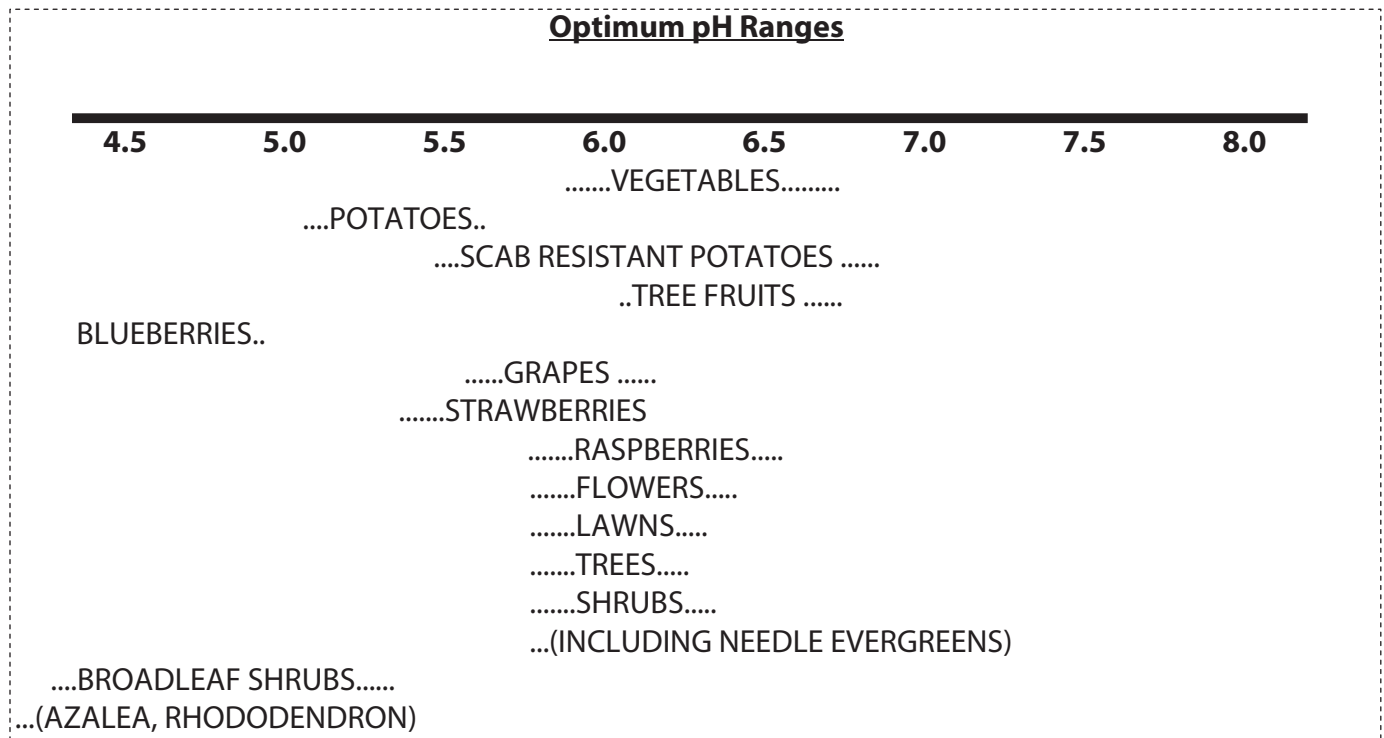
\_\_\_\_\_ **Date**

HORTICULTURAL PROGRAM

## Soil pH

Soil pH is a measure of hydrogen ion activity in a soil suspension. Soil pH influences many aspects of crop (plant) production, including availability of nutrients and toxic substances, activity and diversity of microbial populations, and soil chemistry. A soil pH of 7.0 is neutral, above 7.0 is alkaline and below 7.0 is acidic.

Traditionally, soils in the Northeast are acidic due to moderate to high levels of rainfall. To maintain proper pH, test yearly to adjust your liming program accordingly. The optimum soil pH for plants varies (see chart).



## Raising pH

Limestone is the most readily available material for raising pH. Fall applications of lime are best to allow sufficient time for reaction with the soil. Use a fine ground dolomitic or calcitic limestone, do not use slaked, burnt or hydrated lime. Recommendations for more than 10 lbs/100 sq ft (100 lbs/1000 sq ft) should be split into two applications, several months apart.

Wood ash may also be used to raise pH. Wood ash has approximately half the liming effect of limestone. Wood ash reacts quicker than lime to raise soil pH. Wood ash can be caustic and is best applied in the fall at rates below 10lbs/100sqft.

## Lowering pH

Most soils in the Northeast are acidic or will become acidic overtime. Occasionally pH may need to be lowered to grow specific crops such as blueberries which require acidic soils or to correct over liming. The use of acidifying fertilizers, fertilizers with the Nitrogen source from ammonium ( $\text{NH}_4^+$ ) can be used to lower pH slightly. When significant lowering of pH is needed elemental sulfur 'flowers of sulfur' should be used. Care should be taken not to over apply elemental sulfur.

