

Introduction

Soil Testing in the Northeastern United States

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Soil testing programs in the northeastern United States have provided a valuable service to the region for many years. Analytical methods have been developed that can rapidly assess the ability of soils to supply adequate plant nutrients for a wide variety of agronomic and horticultural crops. Economically and environmentally efficient fertilizer recommendations based on these tests are an integral part of soil testing and, as with the analytical methods, are constantly reviewed and refined through research conducted by Agricultural Experiment Stations in the Northeast.

The Northeast, however, is a diverse region, not only in terms of soils, crops and climatic conditions, but also with regard to the soil testing procedures and recommendations that have evolved since soil testing originated in this area in the early 1900's. Although in many cases this diversity is necessary, it was recognized in 1987 that greater cooperation between states in the Northeast could enhance the effectiveness of soil testing throughout the region. In response, the Northeastern Coordinating Committee for Soil Testing (NEC) was formed and has established the following objectives related to soil testing:

- 1) To improve and standardize soil, plant and waste analysis methods used within the Northeastern region of the US;
- 2) To improve crop nutrient recommendations based on soil, plant, and waste analysis results along with other soil and management factors;
- 3) To provide a forum for discussing and responding to challenges facing soil testing and nutrient management efforts;
- 4) To support Extension efforts in soil testing, nutrient management, and related environmental issues;
- 5) To serve as an educational resource on the appropriate use and interpretation of soil, plant, and waste analysis for the general public.

In 1991, NEC published the first northeastern regional bulletin on soil testing methods: ***Recommended Soil Testing Procedures for the Northeastern United States***. This bulletin summarized recommended soil testing methods based on those used by northeastern soil testing laboratories. The intent of this bulletin was to make an initial effort to standardize, within reasonable limits, the soil testing techniques used in the Northeast. The bulletin was distributed widely throughout the Northeast and quickly became an important reference document for many state and private soil testing laboratories. In 1995, a second edition of this bulletin was published

with methods updated and chapters added on quality assurance, cation exchange capacity, soluble salts, and importantly, the interpretation philosophies used by northeastern soil testing programs to develop profitable and environmentally sound nutrient recommendations. Further enhancements to this bulletin have been made in this 3rd edition, published in 2011. Methods have been updated; the chapters on macro and micro nutrient soil tests combined to reflect the use of universal extractants, and chapters on testing for soil boron, lead and silicon added. Soil testing and the associated fertility recommendations continue to evolve. Publication of this revised edition reflects the ongoing commitment of NEC to advance the science and technology of soil testing and to enhance the role of soil testing programs in all aspects of land management in the Northeast.