

LAST DATE AMENDED: June 9, 1992

TITLE 36 - DEPARTMENT OF AGRICULTURE, DIVISION OF LABORATORIES

Chapter 1 - THE NEBRASKA SOIL AND PLANT ANALYSIS LABORATORY ACT REGULATIONS

001 Minimum Standards.

001.01 Laboratory Facilities and Equipment. Each laboratory which performs soil and plant analysis shall maintain equipment and facilities which are adequate and appropriate for the services offered. Each laboratory shall also maintain the following standards:

001.01A A written plan of quality assurance shall be developed and followed, and shall include, but not be limited to, the following elements:

001.01A1 Organization and responsibilities of personnel.

001.01A1a Qualifications of laboratory supervisor.

001.01A1b Staff training procedures.

001.01A1b(1) Laboratory standard operating procedures and quality assurance.

001.01A1b(2) Test methods training.

001.01A1b(3) Proficiency assessment.

001.01A1b(4) Safety.

001.01A2 Laboratory equipment and inventory.

001.01A2a Manufacturer, model, and age.

001.01A2b Frequency of calibrations.

001.01A2c Routine preventative maintenance schedules.

001.01A2d Written record of calibrations and repairs.

001.01A3 Sample handling.

001.01A3a Assignment of unique sample number.

001.01A3b Sample logging procedures.

001.01A3c Sample custody.

001.01A3d Record custody.

001.01A4 Analytical methods.

001.01A4a Listing of department approved methods used.

001.01A4b Listing of other methods used.

001.01A4c Protocol for in-house validation of methods.

001.01A5 Analytical standards and other reagents.

001.01A5a Sources of purchased standards.

001.01A5b Use of appropriate standard material.

001.01A5c Adherence to standard expiration date.

001.01A5d Use of appropriate grade of other reagents.

001.01A5e Written documentation of reagent preparation.

001.01A6 Laboratory glassware.

001.01A6a Accuracy appropriate for the intended use.

001.01A6b Cleaning procedure to avoid contamination.

001.01A7 Quality Control.

001.01A7a Number of controls and frequency of use.

001.01A7b Use of standard curves or other calibration methods.

001.01A7c Use of control and warning limits.

001.01A7d Corrective action employed for system control.

001.01A7e Documentation.

001.01A7f Control data review.

001.01A7g Data custody.

001.01A7h Participation in inter-laboratory proficiency testing program.

001.01B Ample work bench space shall be provided, which shall be properly lighted and convenient to sink water and electrical outlets as necessary.

001.01C Records of the activities shall be readily accessible and made available to the department upon request.

001.02 Personnel. Each laboratory shall be supervised by a person who is responsible for the training and supervision of their staff to sufficiently accomplish the requirements of the Nebraska Soil and Plant Analysis Laboratory Act and this regulation. Such person shall, as a condition precedent, meet one of the following qualifications:

001.02A They shall be a graduate of an accredited college with a bachelor of science degree and a major in one of the chemical, engineering, physical or biological sciences; or

001.02B They shall be a graduate of an accredited college with a bachelor of science degree and a minimum of twenty credit hours or the equivalence thereof in chemistry or soil science; or

001.02C They shall have five years prior experience in the supervision of a laboratory which performs soil and plant analysis, and shall be approved by the Director.

002 Standard Reporting Units. Analytical results shall be reported in elemental form as parts per million, except as follows:

002.01 Either parts per million or percent may be used for results above one thousand parts per million.

002.02 The negative log value from direct instrument reading shall be used for pH values.

002.03 Other methods of reporting may be used for analysis when reporting as parts per million is not applicable. Examples of such situations are soluble salts, particle size analysis, and level of excess lime.

003 Report formats. The name of the test performed and the method used for that test shall be stated specifically.

003.01 When the test is performed in adherence to published and accepted soil method references, the label will state the test and method. Example: Zinc by DTPA extraction. The method must be identified by the same method name, and all conditions must be followed as published.

003.02 When the test is performed in a manner other than as stated in 003.01 above, the label will state the test and indicate the method as "other", or by a designation selected by that particular laboratory. The selected designation shall not be as stated in 003.01. Method modifications must be supported by in house validation, as in 001.01A4c.

004 Annotation. Neb. Rev. Stat. §§2-3101 to 2-3110 (Reissue 1991, Cum. Supp., 1994 and Supp. 1995).