



University of Arkansas Division of Agriculture

An Agricultural Law Research Project

**Nutrient Management Plans
Statutes & Regulations**

Massachusetts

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Nutrient Management Plans

STATE OF MASSACHUSETTS

1) ALM GL ch. 128, § 2(k); 330 CMR 31.04

The statutes and Constitution are current through the 2018 regular and special legislative sessions. The statutes are subject to changes by the Massachusetts General Court.

1) ALM CL ch. 128, § 2(k); 330 CMR 31.04

§ 2. Certain powers and duties defined.

[. . .]

(k) Maintain authority to regulate and enforce the registration and application of plant nutrients put on or in soil to improve the quality or quantity of plant growth, including, but not limited to, fertilizer, manure and micronutrients in the commonwealth.

The department shall promulgate regulations that specify when plant nutrients may be applied and locations in which plant nutrients shall not be applied. Subject to appropriation, the department may also develop regulations regarding the use of plant nutrients designed to mitigate significant risks to human health and the environment. The department may limit the scope of those regulations regionally as appropriate. The department shall work in conjunction with the University of Massachusetts Amherst Extension to ensure any regulations of the department relative to plant nutrients are consistent with the program's published information, educational materials and other public outreach programs relative to nutrient management and fertilizer guidelines.

The department may establish fines for violations of regulations promulgated under this subsection which shall not exceed \$250 for a first offense, \$500 for a second offense and \$1000 for a third or subsequent offense.

A person aggrieved by the assessment of a fine under this subsection may appeal that fine by filing a notice of appeal with the division of administrative law appeals within 10 days of the receipt of the notice of the fine. An appellant shall be granted a hearing before the division of administrative law appeals under chapter 30A. The hearing officer may affirm or, if the aggrieved person demonstrates by a preponderance of evidence that the fine was erroneously issued, vacate or modify the fine. A person aggrieved by a decision of the hearing officer may file an appeal in the superior court under said chapter 30A.

31.04: Requirements for Nutrient Management Plan and Testing for Agricultural Land

(1) Regardless of the number of acres, any Person who applies Plant Nutrients to Agricultural Land shall comply with the Plan guidance set forth within the *UMass Guidelines* for the agricultural commodity. This may include multiple *UMass Guidelines* specific to the commodity being grown. The information maintained as part of any *UMass Guideline* recommendation shall constitute the Plan for the Agricultural Operation.

(2) In the event that *UMass Guidelines* are not available, a Plan containing the information shall be maintained by the Operator of the Agricultural Operation for all Plant Nutrient applications made to ten or more acres of Agricultural Land:

(a) Plan identification, which shall include:

1. Operator name and address;
2. location of all land under the Plan;
3. date the Plan was prepared or updated;
4. period of time the Plan covers; and
5. name and contact information of the Person responsible for the Plan development.

(b) Map or aerial photograph, which shall include:

1. one or more maps or aerial photographs that identify the location and boundaries of fields or Management Unit;
2. field or Management Unit number or identifier;
3. acreage of each field or Management Unit;
4. location of Surface Waters, Zone A, if present, and Zone I of Public Water Supply Wells, if present; and
5. identification of the areas where Plant Nutrient applications are restricted based on setbacks set forth in 330 CMR 31.03.

(c) If applicable, an inventory of generated and stored Agricultural Byproducts and Agricultural Process Water to be land-applied must be kept. A determination of available Plant Nutrients from these sources should be based on sample analysis results of Plant Nutrient in stored Agricultural Byproducts and Agricultural Process Water or book values for Plant Nutrient content in Agricultural Byproducts and process waters as published in the *UMass Guidelines*.

(d) Current and/or planned crop and crop rotation for each field or Management Unit.

(e) Determination of the planned Plant Nutrient Application Rates on individual fields or Management Units, which shall be based on:

1. Crop Nutrient Needs based on crop removal rate and yield goals;
2. Soil Test or plant tissue test results;
3. application of all sources of Plant Nutrients;
4. results of phosphorus soil level assessment, if applicable;
5. nutrient credits from previous crops and Animal Manure applications, if applicable;
6. environmental factors such as setbacks and Buffers;
7. *UMass Guidelines*; and
8. the best information available at the time a Plan is prepared.

(f) If applicable, determination of whether a Nutrient Application Rate should be based on nitrogen or phosphorus as a limiting factor.

1. high, above optimum or excessive phosphorus soils: Recommendations for fields with soils containing a high, above optimum or excessive phosphorus level shall follow *UMass Guidelines* for high-phosphorus soils.
2. optimum or less than optimum phosphorus soils: Nutrient Application Rates on fields with soil phosphorus levels that are optimum or less may be based on nitrogen;

(g) Application records shall include the following:

1. Soil Test results and recommended Nutrient Application Rates;
2. quantities, analyses, and sources of Plant Nutrients applied;
3. dates and method(s) of nutrient application;
4. crops planted and estimated yields; and

5. all activities or protocols recommended or required by the Plan.

(h) Guidance for implementation, operation and maintenance, and record keeping.

(3) Record Keeping for Agricultural Land under ten acres and for which no *UMass Guidelines* are available. The following must be kept by any Operator or Person that does not meet the Plan requirements set forth in 330 CMR 31.04(1) or (2). Records shall be maintained by the Operator or Person and shall include:

- (a) Soil Test results and recommended Nutrient Application Rates;
- (b) Quantities, analyses, and sources of Plant Nutrients applied;
- (c) Dates and method(s) of Plant Nutrient application; and
- (d) Crops planted and estimated yields.

(4) Plan Updates and Revisions. For Agricultural Operations that are required to keep a plan, updates and revisions of a Plan shall be made based on review of crop-year specific information and operation specific information. Information used to develop crop-year specific field-based plans shall be reviewed and updated annually, if necessary. Operation-specific information shall be reviewed and updated every three years, or as necessary when changes occur, including, but not limited to, the following:

- (a) If the planned crop or cropping rotation, or introduction of a new crop is not currently addressed in an existing Plan, unless the new crop will have fertility management similar to that crop originally planned;
- (b) If nutrient source or Soil Test results indicate a change in nutrient recommendations;
- (c) If 10% or greater change in acreage managed, or 30 acres, whichever is less; or
- (d) If a change in Animal Manure production is 10% or greater, and will require significant management adjustments.

(5) All testing of soils, plant tissue, Agricultural Byproducts, and Agricultural Process Water done in accordance with 330 CMR 31.04 shall comply with the following:

- (a) Each field, or group of fields with similar soils and crops and history of lime and Fertilizer applications, shall be Soil Tested at least every three years. Soil Tests shall include analyses for phosphorus, potassium, pH, and soil organic matter. Standard Soil Test analyses shall be conducted in accordance with *UMass Guidelines*;

(b) Sampling and testing of Agricultural Byproducts and Agricultural Process Water shall comply with the following, unless *UMass Guidelines* require an alternative sampling and testing requirement:

1. materials shall be analyzed for nitrogen (total nitrogen, and ammonia-N), total phosphorus, total potassium, percent solids;
2. if there is no prior sampling history, testing shall be done annually for a minimum of three consecutive years. The average of the results shall be used as a basis for nutrient allocation to fields. Materials shall then be tested every three years;
3. samples of these materials shall be collected, prepared, stored, shipped and tested following *UMass Guidelines*; and
4. tests shall be performed whenever there is a significant change in animal numbers, species, diet, storage method, bedding materials, or additions of other Agricultural Byproducts, including those from offsite.

(c) Plant tissue testing shall be done in accordance with *UMass Guidelines*.

(6) All Plan and record keeping information required under 333 CMR 31.04 shall be kept for three years in either electronic or hard copy format and shall be made available for inspection by the Department upon request.

(7) The application of Plant Nutrients must follow any Plan required by 330 CMR 31.04.

(8) Should *UMass Guidelines* not be available when referenced in 330 CMR 31.00, the Applicator or Operator must follow the equivalent extension service standards or standard industry practices until such time that *UMass Guidelines* have become available.