

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

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CHAPTER Agr 1100 FERTILIZERS

Statutory Authority: RSA 431:5, RSA 431:6, RSA 431:7, RSA 431:8, RSA 431:9, RSA 431:10, RSA 431:13

PART Agr 1101 DEFINITIONS

Agr 1101.01 "Guarantee" means a statement by the manufacturer that the ingredients identified are present in the amounts or concentrations claimed.

Agr 1101.02 "Micronutrients" means the following plant food elements which are essential for the normal growth of plants and which are required by plants in relatively small amounts:

- (a) Boron;
- (b) Chlorine;
- (c) Cobalt;
- (d) Copper;
- (e) Iron;
- (f) Manganese;
- (g) Molybdenum;
- (h) Sodium; and
- (i) Zinc.

Agr 1101.03 "Percentage" or "%" means the amount of individual plant nutrients in relation to the total product by weight.

Agr 1101.04 "Primary nutrients" means the following plant food elements which are essential for plant growth and which are required by plants in relatively large amounts:

- (a) Nitrogen (N);
- (b) Available Phosphate (P_2O_5); and
- (c) Soluble Potash or Potassium (K_2O).

Agr 1101.05 "Secondary Nutrients" means the following plant food elements which are

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essential for the normal growth of plants and which are required by plants in lesser amounts than the primary nutrients and greater amounts than the micronutrients:

- (a) Calcium;
- (b) Magnesium; and
- (c) Sulfur.

Agr 1101.06 "Unit" means 20 pounds of plant food or one percent of a ton.

PART Agr 1102 PLANT NUTRIENTS IN ADDITION TO NITROGEN, PHOSPHATE AND

Agr 1102.01 Other Plant Nutrients.

- (a) Nutrients other than the primary nutrients when mentioned in any form or manner shall be registered and shall be guaranteed.
- (b) Guarantees shall be made on an elemental basis. Sources of the elements guaranteed and proof of availability shall be provided to the commissioner upon request as verification of claims.
- (c) Except guarantees for those water soluble nutrients labeled for ready to use foliar fertilizers, ready to use specialty liquid fertilizers, hydroponic or continuous liquid feed programs, and guarantees for horticultural growing media, which are exempted by RSA 431:3, VII, the minimum percentages which shall be accepted for registration shall be as shown below in Table 1102-1 Minimum Percentages:

Table 1102-1 Minimum percentages

<u>Element</u>	<u>%</u>
Calcium (Ca)	1.0000
Magnesium (Mg)	0.5000
Sulfur (S)	1.0000
Boron (B)	0.0200
Chlorine (Cl)	0.1000
Cobalt (Co)	0.0005
Copper (Cu)	0.0500
Iron (Fe)	0.1000
Manganese (Mn)	0.0500
Molybdenum (Mo)	0.0005
Sodium (Na)	0.1000
Zinc (Zn)	0.0500

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- (a) Guarantees or claims for the plant nutrients in Table 1102-1 shall be the only ones which shall be accepted.
- (b) Fertilizer labels shall be furnished upon request for verification purposes.
- (c) Any of the elements listed in Table 1102-1 which are guaranteed shall appear in the order listed immediately following guarantees for the primary nutrients.

PART Agr 1103 FERTILIZER LABELS

Agr 1103.01 Fertilizer Labels.

- (a) The following information shall be the minimum required for all fertilizer labels:
 - (1) Net weight;
 - (2) Brand;
 - (3) Grade, provided that the grade shall not be required when no primary nutrients are claimed;
 - (4) Guaranteed analysis;
 - (5) Total percentage of Nitrogen (N);
 - (6) If chemical forms of N are claimed or required, the percentage of the following individual forms of N shall be specified:
 - a. Ammoniacal nitrogen;
 - b. Nitrate nitrogen;
 - c. Water insoluble nitrogen;
 - d. Urea nitrogen; and
 - e. Other determinable forms of N;
 - (7) Percentage of available phosphate (P_2O_5);
 - (8) Percentage of soluble potash (K_2O);
 - (9) Percentage of other nutrients, on an elemental basis as stated in Agr 1102.01;

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- (10) When a component of a plant nutrient guarantee is broken down into its constituent forms then the percentage of each shall be stated;
 - (11) Sources of nutrients, when shown on the label, shall be listed below the completed guaranteed analysis statement; and
 - (12) Name and address of registrant.
- (b) If an amount of nitrogen is designated as organic then the water insoluble nitrogen or the slow release nitrogen guarantee shall not be less than 60% of the nitrogen so designated. Coated urea shall not be included in meeting the 60% requirement.
- (c) For packaged products, the information above in Agr 1103.01(a) shall:
- (1) Be in a readable and conspicuous form; and
 - (2) Either:
 - a. Appear on the front or back of the package;
 - b. Occupy at least the upper-third of a side of the package; or
 - c. Be printed on a tag and attached to the package.
 - (d) For bulk products, the same information required by (a) above shall accompany delivery and be supplied in written or printed form to the purchaser at the time of delivery.

Agr 1103.02 Slowly Released Plant Nutrients.

- (a) No fertilizer label shall bear a statement that connotes or implies that certain plant nutrients contained in a fertilizer are released slowly over a period of time, unless the slow release components are identified and guaranteed at a level of at least 15% of the total guarantee for that nutrient.
- (b) Types of products with slow release properties shall be:
 - (1) Water insoluble, such as but not limited to:
 - a. Natural organics;
 - b. Ureaform materials;

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- c. Urea-formaldehyde products;
 - d. Isobutylidene diurea; or
 - e. Oxamide;
- (2) Coated slow release, such as sulfur coated urea and other encapsulated soluble fertilizers;
- (3) Occluded slow release, where fertilizers or fertilizer materials are mixed with waxes, resins or other inert materials and formed into particles; and
- (4) Products containing water soluble nitrogen, such as but not limited to:
- a. Ureaform materials;
 - b. Urea-formaldehyde products;
 - c. Methylenediurea (MDU);
 - d. Dimethylenetriurea (DMTU); or
 - e. Dicyanodiamide (DCD).
- (c) The terms "water insoluble," "coated slow release," "slow release," "controlled release," "slowly available water soluble," and "occluded slow release" shall be acceptable terms indicative of slowly released plant nutrients, provided the manufacturer can show a testing program substantiating the claim.
- (d) The Association of Official Analytical Chemists (AOAC) International Method 970.04, 15th edition, shall be used to confirm the coated slow release and occluded slow release nutrients and others whose slow release characteristics depend on particle size. AOAC International Method 945.01, 15th edition, shall be used to determine the water insoluble nitrogen of organic materials.

PART Agr 1104 NAMES OF COMMERCIAL FERTILIZERS

Agr 1104.01 Names of Commercial Fertilizers. The names and definitions for commercial fertilizers shall be those adopted by the Association of American Plant Food Control Officials (AAPFCO) and published in the AAPFCO Official Publication No. 53, 2000 edition.

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PART Agr 1105 INVESTIGATIONAL ALLOWANCES

Agr 1105.01 Commercial Fertilizer Deficiency.

- (a) A commercial fertilizer shall be deemed deficient if the analysis of any nutrient is below the guarantee for that nutrient by an amount exceeding the values listed below in Table 1105-1 Commercial Fertilizer Deficiencies or if the overall index value of the fertilizer is below 98%:

Table 1105-1 Commercial Fertilizer Deficiencies

<u>Guaranteed percent</u>	<u>Nitrogen percent</u>		<u>Available Phosphate percent</u>	<u>Potash</u>
04 or less		0.49	0.67	0.41
05		0.51	0.67	0.43
06		0.52	0.67	0.47
07		0.54	0.68	0.53
08		0.55	0.68	0.60
09		0.57	0.68	0.65
10		0.58	0.69	0.70
12		0.61	0.69	0.79
14		0.63	0.70	0.87
16		0.67	0.70	0.94
18		0.70	0.71	1.01
20		0.73	0.72	1.08
22		0.75	0.72	1.15
24		0.78	0.73	1.21
26		0.81	0.73	1.27
28		0.83	0.74	1.33
30		0.86	0.75	1.39
32 or more	0.88	0.76		1.44

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- (b) For guarantees not listed in Table 1105-1, the appropriate value shall be calculated by interpolation.
- (c) A commercial fertilizer shall be deemed deficient if the overall index value of the fertilizer is below 98%.
- (d) The overall index value of a fertilizer shall be determined by using the following formula:
 - (1) "Commercial Value Guaranteed" means the number determined by the sum obtained from multiplying the percentage of each nutrient the manufacturer guarantees to contain in the fertilizer, by the corresponding unit values of each nutrients listed in Agr 1105.02;
 - (2) "Commercial Value Found" means the number determined by the sum obtained from multiplying the percentage found of each nutrient in the fertilizer, by the corresponding unit values of each nutrients listed in Agr 1105.02;
 - (3) The calculation of the overall index value shall be determined by multiplying 100 times the commercial value found and dividing by the commercial value guaranteed, as in the formula below:

$$\text{Overall Index Value} = \frac{(\text{Commercial Value Found}) \times 100}{(\text{Commercial Value Guaranteed})}$$

Agr 1105.02 Commercial Values to be Applied.

- (a) For the purpose of determining the commercial values to be applied under the provisions of RSA 431:8 and RSA 431:9, the values per unit of nitrogen, phosphate and potash in commercial fertilizer shall be as follows:
 - (1) Nitrogen, \$5.00 per unit;
 - (2) Phosphate, \$6.00 per unit; and
 - (3) Potash, \$4.00 per unit.

Agr 1105.03 Deficiency of Secondary Nutrients and Micronutrients.

- (a) Secondary nutrients and micronutrients shall be those listed in Table 1102-1 Minimum Percentages.
- (b) Secondary nutrients and micronutrients shall be deemed deficient if any element is below the guarantee by an amount exceeding the values below in Table 1105-2 Secondary and Minor Element Deficiencies.

Table 1105-2 Secondary and Minor Element Deficiencies

<u>Element</u>	<u>Allowable Deficiency</u>
Calcium	0.2 unit + 5% of guarantee
Magnesium	0.2 unit + 5% of guarantee
Sulfur	0.2 unit + 5% of guarantee
Boron	0.003 unit + 15% of guarantee
Cobalt	0.0001 unit + 30% of guarantee
Molybdenum	0.0001 unit + 30% of guarantee
Chlorine	0.005 unit + 10% of guarantee
Copper	0.005 unit + 10% of guarantee
Iron	0.005 unit + 10% of guarantee
Manganese	0.005 unit + 10% of guarantee
Sodium	0.005 unit + 10% of guarantee
Zinc	0.005 unit + 10% of guarantee

- (c) The maximum allowance when calculated in accordance to Table 1105-2 shall be one unit or 1%.

PART Agr 1106 INSPECTION FEE AND SEMI-ANNUAL TONNAGE REPORT

Agr 1106.01 Inspection Fee. Under RSA 431:6 each person distributing commercial fertilizer shall pay an inspection fee of 20 cents per ton of fertilizer sold in New Hampshire, with a minimum fee of \$5. Such fee shall be payable at the time of filing the semi-annual tonnage report as specified in RSA 431:6.

Agr 1106.02 Semi-Annual Tonnage Report. The semi-annual tonnage report shall list the following:

- (a) The period for which the report covers;
- (b) The tons sold of each grade and type of material;
- (c) Whether the tonnage sold is dry or liquid and bagged or bulk;
- (d) The company name and address; and
- (e) The name, title, and signature of the person completing the report.