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Chapter Ag 17

FERTILIZER

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Ag 17.01 Definitions. (1) "Primary nutrients" are nitrogen (N), available phosphoric acid ( $P_2O_5$ ) or phosphorus (P), and potash ( $K_2O$ ) or potassium (K).

(2) "Secondary nutrients" and "micronutrients" are nutrients other than primary nutrients essential for normal growth of plants. "Secondary nutrients" are calcium, magnesium, and sulfur; and "micronutrients" are boron, chlorine, cobalt, copper, iron, manganese, molybdenum, sodium, and zinc.

(3) "Unit" means 20 pounds of plant food or one per cent of a ton.

(4) "Index factor" is a weighted per unit numerical value assigned to each of the primary nutrients under these rules. Example: If wholesale value per unit of nitrogen is \$1.70, the index factor is 2.00.

(5) "Nutrient index value" is the result obtained by multiplying the number of units of any primary nutrient by the index factor per unit assigned to such nutrient by the department. Example: 10.0 units of total nitrogen  $\times$  2 (assumed index factor) = 20.0.

(6) "Combined nutrient index value" is the combined total of nutrient index values for all of the primary nutrients present in fertilizer computed on the basis of index factors established by the department. Example:

10.0 Units of Nitrogen	$\times$ 2.00 (assumed index factor)	= 20.0
10.0 Units of Available Phosphoric Acid	$\times$ 2.00 (assumed index factor)	= 20.0
10.0 Units of Potash	$\times$ 1.00 (assumed index factor)	= 10.0
Combined Nutrient Index Value		= 50.0

(7) "Pesticide" is as defined s. 94.67, Stats.

(8) "Pesticide-fertilizer mixture" is a fertilizer which contains or to which a pesticide has been added.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

Ag 17.02 Sampling and analysis. (1) Names and definitions for fertilizer or fertilizer materials are those adopted by the Association of American Plant Food Control Officials and published in the Official Publication of the Association of American Plant Food Control Officials, No. 37, 1984.

Copies may be obtained from the treasurer of the Association of American Plant Food Control Officials, P.O. Box 1163, 1100 Bank St., Room 412, Richmond, VA 23209. Copies are on file at the offices of the department of agriculture, trade and consumer protection, the secretary of state, and the revisor of statutes.

(2) The methods of taking official samples shall be the methods adopted by the Association of American Plant Food Control Officials and published in the Inspectors Manual of the Association of American Plant Food Control Officials, Fourth Edition, 1984. Copies may be obtained from the treasurer of the Association of American Plant Food Control Officials, P.O. Box 1163, 1100 Bank St., Room 412, Richmond, VA 23209. Copies are on file at the offices of the department of agriculture, trade and consumer protection, the secretary of state, and the revisor of statutes.

(3) The methods of analysis shall be the methods adopted by the Association of Official Analytical Chemists contained in the 1984 Official Methods of Analysis, Fourteenth Edition, and the Association of Official Analytical Chemists Journal, Volume 67, published by the Association of Official Analytical Chemists, P.O. Box 540, Benjamin Franklin Station, Washington, D.C. 20044, and the 1984 modified comprehensive nitrogen method adopted by the department of agriculture, trade and consumer protection. Copies of the Association of Official Analytical Chemists methods may be obtained from the association. Copies of the modified comprehensive nitrogen method may be obtained, free of charge, from the department of agriculture, trade and consumer protection. Copies of the Association of Official Analytical Chemists methods and the department of agriculture, trade and consumer protection's modified comprehensive nitrogen method are available for inspection and copying at the offices of the department of agriculture, trade and consumer protection, secretary of state and revisor of statutes.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71; am. Register, September, 1985, No. 357, eff. 10-1-85.

**Ag 17.03 Labeling.** (1) Pesticide-fertilizer mixtures shall be labeled in accordance with both the state pesticide and fertilizer law. Labels shall include specific warnings, directions, and recommended amounts for use on agricultural crops or as specialty fertilizers.

(2) No person shall advertise, offer for sale, or sell any fertilizer for use as tobacco fertilizer unless its label bears a statement of maximum chlorine content.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

**Ag 17.04 Guarantees; additional plant food elements.** (1) No claims or guarantees for secondary nutrients or micronutrients may be made in any form or manner except for nutrients guaranteed to be present in the following minimum percentages:

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ELEMENT	PER CENT	ELEMENT	PER CENT
Calcium (Ca) .....	1.00	Copper (Cu) .....	0.05
Magnesium (Mg) .....	0.50	Iron (Fe) .....	0.10
Sulfur (S) .....	1.00	Manganese (Mn) .....	0.05
Boron (B) .....	0.02	Molybdenum (Mo) .....	0.0005
Chlorine (Cl) .....	0.10	Sodium (NA) .....	0.10
Cobalt (Co) .....	0.0005	Zinc (Zn) .....	0.05

(2) Elements guaranteed shall appear in the order listed in sub. (1) and shall immediately follow guarantees for primary nutrients.

(3) Sources of the elements guaranteed, proof of availability, and proposed labels and directions for use of fertilizer shall be furnished the department on request.

(4) Warning or caution statements shall be included on the label for any product which contains 0.06 % or more of boron in a water-soluble form or 0.001% or more of molybdenum. The statement shall carry the word "WARNING" in a conspicuous manner and shall include a statement of the crops for which the fertilizer may be used and that use on crops other than those for which the fertilizer is recommended may result in serious damage or injury to the crop.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

**Ag 17.05 Anhydrous ammonia installations.** Anhydrous ammonia shall be stored and transported in accordance with standards for the design, construction, location, installation, and operation of anhydrous ammonia systems prescribed by the department of industry, labor and human relations, ch. Ind 43, Wis. Adm. Code.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

**Ag 17.06 Computation of tonnages.** In determining tonnages for payment of the inspection fee, the tonnages of all fillers added to dry fertilizers and water added to liquid fertilizer shall be included.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

**Ag 17.07 Investigational and enforcement tolerances.** (1) A fertilizer is mislabeled and unlawful for sale or distribution if on analysis it is found to be deficient in plant nutrients guaranteed to be present in excess of tolerances prescribed herein.

(2) A fertilizer is deficient and in excess of tolerances for primary nutrients if it is found to be more than a) 10% or 2 units below label guarantees in any one of the 3 primary nutrients guaranteed to be present, or b) 3% below the combined nutrient index value of the fertilizer. Sample calculations are set forth in the appendix to these rules.

(3) Secondary nutrients and micronutrients are deficient if any element is below label guarantee in amounts exceeding values in the following schedule:

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ELEMENT	ALLOWABLE DEFICIENCY
Calcium	
Magnesium	..... 0.02 unit + 5% of guarantee
Sulfur	
 Boron	 ..... 0.003 + 15% of guarantee
 Cobalt	 ..... 0.001 unit + 30% of guarantee
Molybdenum	
 Chlorine	
Copper	
Iron	
Manganese	..... 0.005 unit + 10% of guarantee
Sodium	
Zinc	

(4) The maximum tolerance when calculated in accordance with the 10% factor under sub. (2) (a) shall be 2 units. The maximum tolerance under (3) shall be one per cent (1 unit).

(5) Fertilizer material in custom mixed fertilizer not labeled for grade shall first be calculated to grade before applying the investigational and enforcement tolerances.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

**Ag 17.08 Specialty fertilizer labels.** (1) Specialty fertilizer products shall be conspicuously labeled to show the following information:

(a) Net weight

(b) Brand name

(c) Grade

(d) Guaranteed analysis:

1. Total nitrogen (N) ..... %

a. \_\_\_\_\_ % Ammoniacal nitrogen

b. \_\_\_\_\_ % Nitrate nitrogen

c. \_\_\_\_\_ % Water insoluble nitrogen

2. Available phosphoric acid ( $P_2O_5$ )..... %

3. Soluble potash ( $K_2O$ )..... %

4. Additional plant nutrients, if claimed, in the order and not less than minimum percentage as shown in s. Ag 17.04 (1) of this chapter.

(e) Name and address of licensee

(2) Percentage of ammoniacal, nitrate, and water insoluble nitrogen shall be stated only if claimed to be present or the statement "organic" or "slow acting nitrogen" is used on the label.

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.

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Ag 17.09 Index factors. (1) The index factor shall be based on a determination of per unit wholesale value of nitrogen, available phosphoric acid, and soluble potash used in fertilizers sold in this state rounded out to be the nearest whole dollar. Index factors so established shall be used in determining whether the fertilizer is in compliance with tolerances prescribed by these rules.

(2) In arriving at average wholesale values, the per unit prices of major wholesale suppliers selling fertilizer in Wisconsin shall be used. The department shall review wholesale prices periodically to determine the need for any adjustment in the index factor. If changes are required, they shall be made by amendment to these rules.

(3) Index factors are:

Nitrogen (N): 2.

Available phosphoric acid (P<sub>2</sub>O<sub>5</sub>) or phosphorus (P): 2.

Potash (K<sub>2</sub>O) or potassium (K): 1.

### APPENDIX

#### SAMPLE CALCULATIONS OF 10% TOLERANCE BASED ON INDIVIDUAL PRIMARY NUTRIENTS

	Unit		%	=	Actual Computation	Maximum Tolerance
N	5	×	.10	=	.5	.5
P	10	×	.10	=	1.0	1.0
K	30	×	.10	=	3.0*	2.0

\* 1.0 in excess of 10% tolerance.

#### SAMPLE CALCULATION OF 3% TOLERANCE BASED ON COMBINED NUTRIENT INDEX VALUE

	Unit		Factor	=	Nutrient Index Value
N	5	×	2	=	10
P	10	×	2	=	20
K	30	×	1	=	30
Combined nutrient index value =					60
Tolerance =					60 × .03 = 1.80

History: Cr. Register, March, 1971, No. 183, eff. 4-1-71.