

1 Minnesota Department of Agriculture

2 Agronomy Services Division

3

4 Adopted Amendments to Rule Governing Fertilizer Labels and

5 Labeling Requirements

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7 Rule as Adopted

8 3 MCAR S 1.0327 Fertilizer labels and labeling requirements.

9 A. Authority and purpose. This rule is adopted by the  
10 commissioner pursuant to Minnesota Statutes, section 17.725 to  
11 prescribe conditions for labels and procedures for labeling  
12 fertilizers.

13 B. Definitions. For the purposes of this rule, the terms  
14 defined in this part have the meanings given them, and "brand,"  
15 "commercial fertilizer," "commissioner," "fertilizer material,"  
16 "grade," "guaranteed analysis," "guarantor," "label," "labeling,"  
17 "mixed fertilizer," "organic," and "specialty fertilizer," have  
18 the meanings given in Minnesota Statutes, section 17.713.

19 1. "Department" means the Department of Agriculture.

20 2. "Fertilizer" means a commercial fertilizer or a  
21 specialty fertilizer.

22 3. "Plant nutrient" has the meaning given to "plant food"  
23 in Minnesota Statutes, section 17.713, subdivision 15 b.

24 C. Label information requirements. **Any-fertilizer**  
25 Fertilizers offered for sale, sold or distributed in this state,  
26 in bags or other containers, must have placed on or affixed to  
27 the container the following information in the following format  
28 and order except as provided in D.:

29 1. net weight;

30 2. brand and grade;

31 3. guaranteed analysis:

32 Total Nitrogen (N) . . . . %

33 . . . . % Ammoniacal Nitrogen

34 . . . . % Nitrate Nitrogen

35 . . . . % Water Insoluble Nitrogen

36 . . . . % Urea Nitrogen

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1                   ....% Other approved and determinable  
 2                   forms of Nitrogen  
 3           Available Phosphoric Acid ( $P_2O_5$ )       ....%  
 4           Soluble Potash ( $K_2O$ )                   ....%  
 5           Other plant nutrients (elemental basis)       ....%

6           4. sources of plant nutrients, when shown on the label,  
 7 listing the common or usual English name of all ingredients used  
 8 in manufacturing or blending the commercial fertilizer;

9           5. name and address of guarantor.

10          D. Exception to label information requirements.

11           1. If the percentage of any plant nutrient in specialty  
 12 fertilizer is zero, the plant nutrient must be omitted from the  
 13 statement.

14           2. Chemical forms of nitrogen must be listed, without  
 15 limitation, when the fertilizer is a fish emulsion or when the  
 16 nitrogen is organic or slowly released. Whenever the chemical  
 17 forms of nitrogen are claimed, they must be claimed in the form  
 18 indicated in C.3.

19           3. Chemical forms of nitrogen may be listed, when the  
 20 fertilizer is not a fish emulsion, or when the nitrogen is not  
 21 organic or not slowly released.

22          E. Location of label information. For packaged fertilizers,  
 23 the information required in C. must be in a readable and  
 24 conspicuous form and must meet one of the following requirements:

25           1. appear on the front of the package;

26           2. occupy at least the upper one-third of either side of  
 27 the package;

28           3. appear on the upper end of the container; or

29           4. be printed on a tag and attached to the package.

30          F. Bulk fertilizers. For bulk fertilizers, the information  
 31 required in C., in written or printed form, must accompany  
 32 delivery and be supplied to the purchaser at the time of  
 33 delivery. The format and order in C. is not required for bulk  
 34 fertilizers.

35          G. Slowly released plant nutrients.

36           1. A fertilizer label may not bear a statement that

1 connotes or implies that certain plant nutrients contained in  
2 the fertilizer are released slowly over a period of time, unless  
3 the plant nutrients are identified and guaranteed.

4       2. The following types of plant nutrients may be labeled  
5 as slowly released plant nutrients:

6           a. water insoluble nitrogen products, such as natural  
7 organics, urea formaldehyde, IBDU and oxamide;

8           b. coated slow release plant nutrients such as sulfur  
9 coated urea and other encapsulated soluble fertilizers; and

10          c. occluded slow release plant nutrients, such as  
11 fertilizers mixed with waxes, resins or other inert materials  
12 and formed into particles.

13       3. The terms "water insoluble," "coated slow release" and  
14 "occluded slow release" are accepted as descriptive of these  
15 products, provided that the manufacturer can show a testing  
16 program approved by the department substantiating the claim.

17       4. When the nitrogen is organic and the label states the  
18 amount of organic nitrogen present in a phrase such as "nitrogen  
19 in organic form equivalent to ....% N," then the water insoluble  
20 nitrogen guarantee must not be less than 60 percent of the  
21 nitrogen so designated. For example, if the total nitrogen  
22 guarantee for a fertilizer is ten percent and the label states:  
23 "nitrogen in organic form equivalent to 2.5% N," then the water  
24 insoluble nitrogen guarantee must not be less than 1.5 percent  
25 ( $2.5\% \times 0.6 = 1.5\%$ ).

26       5. When a slowly released plant nutrient is less than 15  
27 percent of the guarantee for total nitrogen, available  
28 phosphoric acid or soluble potash, the label may not bear a  
29 reference to those designations.

30       6. Until more appropriate methods are developed,  
31 Association of Official Analytical Chemists (AOAC) method number  
32 2.074 in Official Methods of Analysis of the Association of  
33 Official Analytical Chemists (William Horwitz, ed.; 13th  
34 edition; 1980), or the appropriate AOAC method in a subsequent  
35 edition, must be used to confirm the coated slow release and  
36 occluded slow release plant nutrients and others whose slow

1 release characteristics depend on particle size. The AOAC  
 2 method number 2.072 in Official Methods of Analysis of the  
 3 Association of Official Analytical Chemists (William Horwitz,  
 4 ed.; 13th edition; 1980), or the appropriate AOAC method in a  
 5 subsequent edition, must be used to determine the water  
 6 insoluble nitrogen of organic materials.

7 7. The following is an example of an acceptable breakdown  
 8 of nitrogen where nitrogen is the only slow release plant  
 9 nutrient in the fertilizer:

10	Total Nitrogen (N)	22%
11	5.5% Ammoniacal Nitrogen	
12	5.5% Nitrate Nitrogen	
13	1.0% Urea Nitrogen	
14	10.0% Coated Slow Release Urea Nitrogen	

15 8. When two or more plant nutrients in a fertilizer are  
 16 coated or occluded to obtain slow release properties, the  
 17 guarantees for those plant nutrients must be shown as footnotes  
 18 rather than following each plant nutrient, as indicated in the  
 19 following example:

20	Fertkote 10-15-20	
21	Guaranteed Analysis	
22	Total Nitrogen (N)*	10%
23	2.5% Ammoniacal Nitrogen	
24	2.5% Nitrate Nitrogen	
25	5.0% Urea Nitrogen	
26	Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )*	15%
27	Soluble Potash (K <sub>2</sub> O)*	20%
28	Sulfur (S)	14%
29	.....	

30 \* The nitrogen, phosphorus and potassium materials in this  
 31 product have been coated to provide 9.0% coated slow release  
 32 nitrogen (N), 13% coated slow release available phosphoric acid  
 33 (P<sub>2</sub>O<sub>5</sub>), and 18% coated slow release soluble potash (K<sub>2</sub>O).

34 H. Fish emulsions. The following is an example of an  
 35 acceptable breakdown of nitrogen for a fish emulsion fertilizer:

36	Total Nitrogen (N)	5%
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- 1                   0% Nitrate Nitrogen  
 2                   0% Urea Nitrogen  
 3                   0.5% Ammoniacal Nitrogen  
 4                   0.5% Water Insoluble Nitrogen  
 5                   4.0% Other Water Soluble Nitrogen

6           1. In the example given above, water insoluble nitrogen  
 7 is guaranteed but no claims or statements, such as organic, slow  
 8 acting or slow release, can be used since it is less than 15  
 9 percent of the total nitrogen.

10          2. Zero guarantees are not acceptable as noted in D. ;  
 11 however, for this specific label they will be allowed so that  
 12 the term "other water soluble nitrogen" will mean nitrogen that  
 13 is soluble but is not nitrate, ammoniacal or urea nitrogen.

14          I. Additional plant nutrients permitted.

15          1. The commissioner will accept guarantees only for the  
 16 additional plant nutrients listed in this part. Any or all of  
 17 these additional plant nutrients in a particular fertilizer may  
 18 be guaranteed if the following minimum content requirements are  
 19 met.

20	Plant Nutrient	Minimum Percent Allowed
21	Calcium (Ca)	1.00
22	Magnesium (Mg)	0.50
23	Sulfur (S)	1.00
24	Boron (B)	0.02
25	Chlorine (Cl)	0.10
26	Cobalt (Co)	0.0005
27	Copper (Cu)	0.05
28	Iron (Fe)	0.10
29	Manganese (Mn)	0.05
30	Molybdenum (Mo)	0.0005
31	Sodium (Na)	0.10
32	Zinc (Zn)	0.05

33          2. If any of the plant nutrients in 1. are guaranteed,  
 34 the procedures in a.-e. must be followed for labels and labeling.

35          a. The plant nutrients must be listed immediately  
 36 following nitrogen, phosphorus and potassium.

1           b. The plant nutrients must appear in the format  
2 listed in 1.

3           c. The plant nutrients must appear in the order listed  
4 in 1.

5           d. The plant nutrients must be stated on the elemental  
6 basis.

7           e. The percentages of each of the plant nutrients  
8 contained in the fertilizer must be stated.

9           3. If the minimum requirement stated in 1. is not met for  
10 a particular plant nutrient, labels and labeling for the  
11 fertilizer may not contain any statement regarding that  
12 particular plant nutrient.

13       J. Labeling and labels. Proposed labeling and labels with  
14 directions for use of the fertilizer shall be furnished with the  
15 application for registration of a fertilizer.

16       K. Warning statements. Warning or caution statements are  
17 required on the label for any product which contains 0.03  
18 percent or more of Boron in a water-soluble form or 0.001  
19 percent or more of Molybdenum.

20       L. Enforcement. The commissioner shall proceed in  
21 accordance with Minnesota Statutes, section 17.728 upon  
22 satisfactory evidence that a label or labeling of a fertilizer  
23 does not meet the provisions in this rule.

24

25 Repealer. Rules Agr 319, 320, 321, and 323 of the Department of  
26 Agriculture are repealed.