

CHAPTER 69

COMMERCIAL FERTILIZERS AND SOIL CONDITIONERS

Authority

N.J.S.A. 4:9-15.33.

Source and Effective Date

R.1999 d.63, effective March 1, 1999.  
See: 30 N.J.R. 4094(a), 31 N.J.R. 637(c).

Executive Order No. 66(1978) Expiration Date

Chapter 69, Commercial Fertilizers and Soil Conditioners, expires on March 1, 2004.

Chapter Historical Note

Chapter 69, Commercial Fertilizers and Soil Conditioners, was adopted as R.1970 d.105, effective September 1, 1970. See: 2 N.J.R. 61(a), 2 N.J.R. 81(a).

Pursuant to Executive Order 66(1978), Chapter 69, Commercial Fertilizers and Soil Conditioners, was readopted as R.1983 d.412, effective September 7, 1983. See: 15 N.J.R. 1206(b), 15 N.J.R. 1647(b). Pursuant to Executive Order No. 66(1978), Chapter 69 expired on September 7, 1988.

Chapter 69, Commercial Fertilizers and Soil Conditioners, was adopted an new rules by R.1988 d.527, effective November 7, 1988. See: 20 N.J.R. 1673(a), 20 N.J.R. 2750(a). Pursuant to Executive Order No. 66(1978), Chapter 69 expired on November 7, 1993.

Chapter 69, Commercial Fertilizers and Soil Conditioners, was adopted as new rules by R.1993 d.688, effective December 20, 1993. See: 25 N.J.R. 4544(a), 25 N.J.R. 5917(a). Pursuant to Executive Order No. 66(1978), Chapter 69 expired on December 20, 1998.

Chapter 69, Commercial Fertilizers and Soil Conditioners, was adopted as new rules by R.1999 d.63, effective March 1, 1999. See: Source and Effective Date.

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SUBCHAPTER 1. GENERAL PROVISIONS

2:69-1.1 Plant nutrients in addition to nitrogen, available phosphoric acid and potassium

(a) Plant nutrients, beside nitrogen, phosphorus and potassium, when mentioned in any form or manner shall be registered and shall be guaranteed. Guarantees shall be made on the elemental basis. Sources of the elements guaranteed shall be shown on the application for a license. The minimum percentages which will be accepted for licensing are as follows:

Element	Percent
Calcium (Ca)	1.00
Magnesium (Mg)	0.50
Sulphur (S)	1.00
Boron (B)	0.02
Chlorine (Cl)	0.10
Cobalt (Co)	0.0005
Copper (Cu)	0.05
Iron (Fe)	0.10
Manganese (Mn)	0.05
Molybdenum (Mo)	0.0005
Sodium (Na)	0.10
Zinc (Zn)	0.05

(b) Guarantees or claims for the above listed nutrients are the only ones which will be accepted. Proposed labels and directions for use of the fertilizer shall be furnished with the application for the license upon request. Warning or caution statements are required for registration on the label for any product which contains 0.03 percent or more of boron in a water-soluble form or 0.001 percent or more of molybdenum. Any of the above listed elements which are guaranteed shall appear in the order listed, immediately following guarantees for the primary nutrients, nitrogen, phosphorus, and potassium.

2:69-1.2 Investigational allowances for primary nutrients

(a) A commercial fertilizer shall be deemed to be deficient if the analysis of any nutrient is below the guarantee by an amount exceeding the values in the following schedule, or if the overall Index Value of the fertilizer is below 98 percent. When the deviation from the guarantee is not in excess of the amounts shown, the fertilizer shall be considered as substantially meeting its guarantee. If the deviation is greater than the value shown, but less than twice the value shown, a warning shall be issued. If the deviation exceeds twice the value shown, the fertilizer shall be considered seriously deficient and subject to a penalty. When the Index Value falls between 98 percent and 95 percent a warning shall be issued. If the Index Value falls below 95 percent, the fertilizer shall be considered seriously deficient and subject to a penalty.

Guarantee percent	Nitrogen percent	Available Phosphoric Acid percent	Potash percent
4 or less	0.49	0.67	0.41
5	0.51	0.67	0.43
6	0.52	0.67	0.47
7	0.54	0.68	0.53
8	0.55	0.68	0.60
9	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

For guarantees not listed, calculate the appropriate value by interpolation.

For these investigational allowances to be applicable, the recommended Association of Official Analytical Chemists' procedures for obtaining samples, sample preparation and analysis must be used.

(b) For WIN (Water Insoluble Nitrogen), deviations of ten per cent and 20 per cent respectively shall be used to determine whether a warning or penalty is appropriate.

*Example:*

3% WIN	
Pass	3.0 - 2.7
Warn	2.69 - 2.4
Penalty below	2.4

### 2:69-1.3 Investigational allowances for secondary and micro nutrients

Secondary (Calcium, Magnesium and Sulfur) and micro nutrients shall be deemed deficient if any element is below the guarantee by an amount exceeding the values in the following schedule. If the deviation is greater than the value shown, but less than twice the value shown, a warning shall be issued. If the deviation exceeds twice the value shown, the fertilizer shall be considered seriously deficient and subject to a penalty.

ELEMENT	ALLOWABLE DEFICIENCY
Calcium	
Magnesium	0.2 unit plus + 5% of guarantee
Sulfur	
Boron	0.003 unit plus 15% of guarantee
Cobalt	
Molybdenum	0.0001 unit plus 30% of guarantee
Chlorine	
Copper	
Iron	0.005 unit plus 10% of guarantee
Manganese	
Sodium	
Zinc	

The maximum allowance when calculated in accordance to above shall be one unit (one per cent).

### 2:69-1.4 Labeling and distribution of soil conditioners

(a) Any soil conditioner offered for sale or sold or distributed in this State, in bags, barrels or other containers shall have placed on, or affixed to the container, the following data in the following order:

1. Net Weight or Volume.
2. The words: "A Soil Conditioner".
3. Brand Name (which shall not be misleading).
4. Ingredient list using the common or usual English name of each component in the soil conditioner product at the time of blending or mixing. The type size of which shall be no smaller than eight point bold face capital letters.
5. Name and address of the licensee.
6. All data shall be printed in type that is plainly legible either directly on the package or on tags affixed to the end of the package. When a tag is used all information required by this Section shall appear on the tag.

(b) The statement "A Soil Conditioner" shall be printed in easily legible type which is in contrast by typography, layout or color with other printed matter on the label and which is of a size equal to or larger than the largest printing on the container, or tag, as the case may be.

(c) All labels or facsimiles thereof shall be submitted to the State Chemist for approval by July 1 of each year. Disapproval shall be made in writing to the licensee submitting the label. In the case of disapproval, the reasons therefore shall be clearly stated. The State Chemist shall approve all labels which comply with this regulation.

(d) If transported in bulk, the data in written form, as required by subsection (a) of this Section above shall accompany delivery and be supplied with each and every delivery.

**2:69-1.5 Specialty fertilizer labels**

The following information, if not appearing on the face or display side in a readable and conspicuous form, shall occupy at least the upper third of a side of the container and shall be considered the label.

	Net Weight
Brand Name	
Grade	
Guaranteed Analysis;	
Total Nitrogen (N) .....	%
.....	% Ammoniacal Nitrogen**
.....	% Nitrate Nitrogen**
.....	% Water Insoluble Nitrogen*
Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> ) .....	%
Soluble Potash (K <sub>2</sub> O) .....	%

Additional Plant Nutrients as prescribed by regulation.

\*\*Potential Acidity or Basicity .....% or ... lbs. Calcium Carbonate Equivalent per ton.  
Name and Address of the licensee.

Notes:  
\*If claimed or the statement "organic" or "slow acting nitrogen" is used on the label.  
\*\*If Claimed.

**2:69-1.6 Slowly available plant nutrients**

(a) No fertilizer label shall bear a statement that connotes or infers the presence of a slowly available plant nutrient, unless the nutrient or nutrients are identified.

(b) When a fertilizer label infers or connotes that the nitrogen is slowly available through use of organic, organic nitrogen ureaform, long lasting or similar terms, the guaranteed analysis must indicate the percentage of water insoluble nitrogen in the material.

(c) To supplement (b) above, it should be established that if a label states the amount of organic nitrogen present in a phrase, such as "25 percent of the nitrogen from ureaformaldehyde (ureaform)," then the water insoluble nitrogen guarantee must be not less than 60 percent of the nitrogen so designated.

Example:

10-6-4 Rose Food  
25% of nitrogen is organic  
10 (Total N) X .25 ( % N claimed as organic) X .60  
Average insolubility in H<sub>2</sub>O of organic nitrogen sources  
= 1.5% WIN

(d) When the water insoluble nitrogen is less than 15 percent of the total nitrogen, the label shall bear no references to any designations, such as stated in (b) above.

(e) The term "Coated-Slow Release Fertilizer," or "Coated-Slow Release" be accepted as descriptive of products.

(f) Further, the phrases in (e) above may be allowed for any products than can show a testing program substantiating of the claim. (Testing under guidance of Experiment Station personnel, or a recognized reputable researcher, etc.) Coated-slow release nitrogen must be guaranteed at the 15 percent of total nitrogen level as in organic materials.

(g) The types of slowly released nitrogen products recognized are:

1. Water insoluble, such as natural organics, ureaformaldehyde, oxamide, and insobutylidene diurea (IBDU);
2. Coated-slow release formulations, such as sulfur coated urea and other encapsulated soluble fertilizers; and
3. Occluded slowly released where fertilizers or fertilizer materials are mixed with waxes, resins, or other inert materials and formed into particles.

(h) The term "water insoluble nitrogen" is acceptable only when material in (g)1 above is used. Until more appropriate methods are developed, AOAC method 2.074 (13th ED) (including all further amendments and supplements thereto) is to be used to test coated-slow release and occluded slow release nutrients in (g)2 and 3 above. AOAC 2.072 (13th ED) (including all further amendments and supplements thereto) is to be used to test coated-slow release and occluded slow release nutrients in (g)2 and 3 above. AOAC 2.072 (13th ED) (including all further amendments and supplements thereto) shall be used to determine the water insoluble nitrogen in (g)1 above.

As amended, R.1982 d.159, eff. May 17, 1982.  
See: 14 N.J.R. 258(a), 14 N.J.R. 471(b).  
(f): "coated-slow release" was "water insoluble".  
(g): Text deleted and replaced with new through (g)3.  
(h) added.

**2:69-1.7 General methodology for sampling and laboratory analyses**

(a) The Department of Agriculture adopts as a rule and incorporates herein by reference the general methods for sampling and laboratory analyses set forth in the 15th (1990)

edition of the Official Publication of the Association of Analytical Chemists, Inc., as amended and supplemented.

(b) A copy of the 15th (1990) edition of the official methods of the Association of Official Analytical Chemists (AOAC) is on file in the Director's Office, Division of Regulatory Services, New Jersey Department of Agriculture, Health and Agriculture Building, John Fitch Plaza, Trenton, New Jersey 08625. Copies may be procured by writing to AOAC, Fulfillment Coordinator, 2200 Wilson Boulevard, Arlington, Virginia 22201-3301.

Amended by R.1993 d.688, effective December 20, 1993.  
See: 25 N.J.R. 4544(a), 25 N.J.R. 5917(a).

### 2:69-1.8 General rules regarding fertilizers

(a) The Department of Agriculture adopts as a rule and herein incorporates by reference each annual edition, in turn, of the Official Publication of the Association of American Plant Food Control Officials, Inc.

(b) A copy of the current edition of the Official Publication of the American Plant Food Control Officials is on file in the Director's Office, Division of Regulatory Services, New Jersey Department of Agriculture, Health and Agriculture Building, John Fitch Plaza, Trenton, New Jersey 08625. Copies may be procured by writing to Joel M. Padmore, North Carolina Department of Agriculture, 4000 Reedy Creek Road, Raleigh, NC 27607.

Amended by R.1993 d.688, effective December 20, 1993.  
See: 25 N.J.R. 4544(a), 25 N.J.R. 5917(a).

### 2:69-1.9 Net contents

In lieu of net weight, fluid measure may be used for specialty fertilizers in liquid form when the containers are of one gallon or less.

### 2:69-1.10 Penalties

When an official analysis shows that a commercial fertilizer or soil conditioner is deficient in one or more of its guaranteed secondary or micro nutrients beyond the investigational allowance as established by N.J.A.C. 2:69-1.3, a penalty of \$20.00 shall be assessed by the State Chemist against the licensee plus \$5.00 per ton or fraction thereof. All penalties assessed under this regulation shall be prorated to the purchaser(s), or to a consumer(s) who thereafter received possession of a lot represented by the sample analyzed, within 60 days after the date of notice from the State Chemist to the licensee. Receipts shall be obtained and forwarded promptly to the State Chemist by the licensee. If the purchaser(s) or consumer(s) cannot be found, the amount of the penalty shall be paid to the State Treasurer.

Amended by R.1993 d.688, effective December 20, 1993.  
See: 25 N.J.R. 4544(a), 25 N.J.R. 5917(a).

### 2:69-1.11 Commercial values

(a) The State Board of Agriculture, pursuant to N.J.S.A. 4:9-15.26, determines the commercial values of primary plant nutrients to be:

1. Nitrogen: \$5.00 per unit;
2. Slowly released nitrogen:
  - i. Water insoluble nitrogen: \$7.50 per unit;
  - ii. Coated available nitrogen: \$6.00 per unit;
3. Available phosphoric acid: \$4.00 per unit;
4. Soluble potash: \$4.00 per unit.

(b) These values shall be effective from July 1, 1998 through June 30, 1999.

R.1971 d.185, effective October 20, 1971.  
See: 3 N.J.R. 174(a), 3 N.J.R. 218(b).  
Amended by R.1973 d.198, effective July 25, 1973.  
See: 5 N.J.R. 214(a), 5 N.J.R. 255(c).  
Amended by R.1975 d.188, effective July 1, 1975.  
See: 7 N.J.R. 246(a), 7 N.J.R. 290(b).  
Amended by R.1976 d.203, effective July 1, 1976.  
See: 8 N.J.R. 369(a).  
Amended by R.1977 d.266, effective July 27, 1977.  
See: 9 N.J.R. 403(a).  
Amended by R.1978 d.197, effective July 1, 1978.  
See: 10 N.J.R. 270(a).  
Amended by R.1979 d.288, effective June 11, 1979.  
See: 11 N.J.R. 222(a), 11 N.J.R. 315(b).  
Amended by R.1980 d.238, effective June 2, 1980.  
See: 12 N.J.R. 247(b), 12 N.J.R. 378(a).  
Amended by R.1981 d.172, effective June 4, 1981.  
See: 13 N.J.R. 114(c), 13 N.J.R. 318(c).  
(a) 1, 3, 4: "\$3.50", "\$2.80", and "\$1.80" were "\$3.30", "\$2.65", and "\$1.60". (b) Values made effective until June 30, 1982.  
Amended by R.1982 d.236, effective August 2, 1982.  
See: 14 N.J.R. 402(a), 14 N.J.R. 833(c).  
(a) 4: \$2.00 was \$1.80. (b): 1982 was 1981; 1983 was 1982.  
Amended by R.1983 d.412, effective October 3, 1983.  
See: 15 N.J.R. 1206(b), 15 N.J.R. 1647(b).  
Amended by R.1984 d.233, effective June 18, 1984.  
See: 16 N.J.R. 782(b), 16 N.J.R. 1471(b).  
Phosphoric acid changed from "\$2.80" per unit to "\$3.00" per unit.  
Amended by R.1985 d.266, effective June 3, 1985.  
See: 17 N.J.R. 764(a), 17 N.J.R. 1407(b).  
(b) amended from "July 1, 1984 to June 30, 1985" to "July 1, 1985 through June 30, 1986".  
Amended by R.1986 d.198, effective June 2, 1986.  
See: 18 N.J.R. 586(a), 18 N.J.R. 1193(a).  
Amended to July 1, 1986 through June 30, 1987.  
Amended by R.1987 d.275, effective July 6, 1987.  
See: 19 N.J.R. 484(a), 19 N.J.R. 1184(b).  
Amended to July 1, 1987 through June 30, 1988.  
Amended by R.1988 d.284, effective June 20, 1988.  
See: 20 N.J.R. 696(a), 20 N.J.R. 1343(a).  
(a) 1 and 2 raised to \$4.00 and \$3.00 from \$3.50 and \$3.00. (b) effective date was July 1, 1987 through June 30, 1988.  
Amended by R.1989 d.326, effective June 19, 1989.  
See: 21 N.J.R. 813(a), 21 N.J.R. 1668(b).  
At (b), effective dates changed from July 1, 1988 through June 30, 1989 to July 1, 1989 through June 30, 1990.  
Amended by R.1990 d.353, effective July 16, 1990.  
See: 22 N.J.R. 1295(b), 22 N.J.R. 2140(a).  
At (b), effective dates changed to July 1, 1990 through June 30, 1991.  
Amended by R.1991 d.431, effective August 19, 1991.  
See: 23 N.J.R. 1728(b), 23 N.J.R. 2499(a).

Effective dates extended to July 1, 1991 through June 30, 1992; slowly released nitrogens specified.

Amended by R.1992 d.373, effective October 5, 1992.

See: 24 N.J.R. 2318(a), 24 N.J.R. 3511(a).

Revised (b).

Amended by R.1993 d.600, effective December 20, 1993.

See: 25 N.J.R. 3585(a), 25 N.J.R. 5917(b).

Amended by R.1994 d.312, effective June 20, 1994 (operative July 1, 1994).

See: 26 N.J.R. 1560(a), 26 N.J.R. 2568(a).

Amended by R.1995 d.326, effective June 19, 1995.

See: 27 N.J.R. 1344(a), 27 N.J.R. 2383(c).

Rewrote (b).

Amended by R.1996 d.403, effective August 19, 1996.

See: 28 N.J.R. 2826(a), 28 N.J.R. 3922(a).

In (b) extended effective date to June 30, 1997.

Amended by R.1997 d.271, effective July 7, 1997.

See: 29 N.J.R. 965(a), 29 N.J.R. 2813(a).

Amended effective period of commercial values and raised commercial values of nitrogen, available phosphoric acid, and soluble potash.

Amended by R.1998 d.375, effective July 20, 1998.

See: 30 N.J.R. 1459(a), 30 N.J.R. 2617(b).

In (a), decreased the per unit value from \$9.50 to \$7.50 in 2i; and in (b), changed the effective date from July 1, 1997 through June 30, 1998, to July 1, 1998 through June 30, 1999.

#### 2:69-1.12 Manufacturing code

Packages of fertilizers or soil conditioners that qualify the signature by bearing the words "made for", "distributed by", "produced for", "packed for" or similar words or phrases, so as to indicate the name and address of a person other than that of the actual manufacturer, shall also bear, immediately following the guaranteed analysis, a manufacturer's

code, assigned by the state chemist, which identifies the facility where the product was manufactured in the following manner and form: Mfg. Code 00-0-0000.

#### 2:69-1.13 Maximum permitted chlorine in certain fertilizers

(a) When fertilizers claim or imply that potash is present in the form other than chloride, the percentage of chlorine present shall not exceed that obtained by the following calculation:

Multiply the percentage of potash found to be present by the factor 0.05 and to this product add an allowance of 0.5 percent.

Example: 12-4-8 (LC) for potatoes

Percentage of potash found present: 8.42%

$8.42\% \times 0.05 = 0.4210\%$

Allowance:  $+0.5000\% = 0.9210\%$  maximum permitted

Amended by R.1971 d.44, effective March 26, 1971.

See: 3 N.J.R. 36(a), 3 N.J.R. 55(b).

#### Authority

N.J.S.A. 4:9-15.23.