

CHAPTER 1510
DEPARTMENT OF AGRICULTURE
SEEDS, FERTILIZERS, FEEDS

AGRICULTURAL SEEDS

- 1510.0011 LABELING VARIETY, VARIETY NOT STATED, AND BRAND; EXAMPLES.
- 1510.0020 DISCLAIMER CLAUSE.
- 1510.0030 LABEL SHOWING PERCENT OF HARD SEED.
- 1510.0040 LABELING OF SEED BINS AND OTHER BULK CONTAINERS.
- 1510.0050 TOLERANCES.
- 1510.0060 PURITY TOLERANCES.
- 1510.0070 ADDITIONAL TOLERANCE.
- 1510.0080 NOXIOUS WEED SEED TOLERANCES.
- 1510.0090 GERMINATION.
- 1510.0100 PURE LIVE SEED.
- 1510.0111 INFORMATION REQUIRED ON HYBRID SEED CORN LABELS.
- 1510.0161 KINDS OF LAWN AND TURF GRASS SEEDS EXEMPT FROM TEN PERCENT INERT MATTER LIMITATION.
- 1510.0171 STANDARDS, REQUIREMENTS, AND CONDITIONS FOR LABELING HERMETICALLY SEALED SEEDS.
- 1510.0180 STATE SEED LABORATORY REPORT.
- 1510.0190 PROHIBITED ADVERTISING; USES OF STATE TEST RESULTS.
- 1510.0200 GRAIN SOLD UNDER VARIETY NAMES.
- 1510.0210 LABELING FOR SEED SAMPLES.
- 1510.0220 CORRECTION OF ERRONEOUS SEED LABELS.
- 1510.0231 GERMINATION STANDARDS; STANDARDIZED GERMINATION TESTING PROCEDURES.
- 1510.0241 STANDARDIZED GERMINATION TESTING PROCEDURES AVAILABLE.
- 1510.0251 KIND AND VARIETY OR TYPE AND PERFORMANCE CHARACTERISTICS OF FLOWER SEEDS.
- 1510.0261 REQUIREMENTS FOR COMPLETE RECORD.
- 1510.0271 PROHIBITED WEED SEEDS.
- 1510.0310 RETESTING AND RELABELING SEEDS.
- 1510.0320 RESTRICTED WEED SEEDS.
- 1510.0330 CORN ZONES.
- 1510.0340 SAMPLE LABELS FOR AGRICULTURAL SEED.
- 1510.0350 SUGGESTED LABEL FOR SINGLE AGRICULTURAL SEED.
- 1510.0360 SUGGESTED LABEL FOR MIXTURES AND BLENDS OF AGRICULTURAL SEED.

LIQUID COMMERCIAL FERTILIZERS

- 1510.0370 AUTHORITY AND PURPOSE.
- 1510.0371 DEFINITIONS.
- 1510.0372 APPROVAL OF FACILITY AND EQUIPMENT.
- 1510.0373 PREVIOUSLY ESTABLISHED FACILITIES.
- 1510.0374 VARIANCES.
- 1510.0375 MAINTENANCE AND OPERATIONS.
- 1510.0376 SAFEGUARDS.
- 1510.0377 MARKINGS.
- 1510.0378 INCIDENTS.
- 1510.0379 EXEMPT FACILITIES.
- 1510.0380 ENFORCEMENT.

DRY COMMERCIAL FERTILIZERS

- 1510.0400 AUTHORITY AND PURPOSE.
- 1510.0401 DEFINITIONS.
- 1510.0402 APPROVAL OF FACILITY AND EQUIPMENT.
- 1510.0403 VARIANCES.
- 1510.0404 MAINTENANCE AND OPERATIONS.
- 1510.0405 MARKINGS.
- 1510.0406 OUTSIDE STORAGE.
- 1510.0407 INCIDENTS.
- 1510.0408 ENFORCEMENT.

FERTILIZER LABELS

- 1510.0410 AUTHORITY AND PURPOSE.
- 1510.0411 DEFINITIONS.
- 1510.0412 LABEL INFORMATION REQUIREMENTS.
- 1510.0413 EXCEPTIONS TO LABEL INFORMATION REQUIREMENTS.
- 1510.0414 LOCATION OF LABEL INFORMATION.
- 1510.0416 CONTROLLED RELEASE PLANT NUTRIENTS.
- 1510.0417 FISH EMULSIONS.
- 1510.0419 LABELING AND LABELS.
- 1510.0420 INVESTIGATIONAL ALLOWANCES.
- 1510.0421 WARNING STATEMENTS.
- 1510.0422 ENFORCEMENT.

SOIL AND PLANT AMENDMENT LABELS

- 1510.0430 AUTHORITY AND PURPOSE.
- 1510.0431 DEFINITIONS.
- 1510.0432 LABEL REQUIREMENTS.
- 1510.0433 LABELING AND LABELS.
- 1510.0434 ENFORCEMENT.

COMMERCIAL FEEDS

- 1510.1930 DEFINITIONS AND TERMS.
- 1510.1943 LABEL FORMAT.
- 1510.1947 LABEL INFORMATION.
- 1510.2070 EXPRESSION OF GUARANTEES.
- 1510.2130 INGREDIENTS.
- 1510.2170 DIRECTIONS FOR USE AND PRECAUTIONARY STATEMENTS.
- 1510.2180 NONPROTEIN NITROGEN.
- 1510.2190 DRUG AND FEED ADDITIVES.
- 1510.2200 ADULTERANTS.
- 1510.2220 GOOD MANUFACTURING PRACTICES.
- 1510.2230 MAMMALIAN PROTEINS PROHIBITED IN RUMINANT FEED.

SEED POTATO CERTIFICATION

- 1510.2300 AUTHORITY.
- 1510.2305 DEFINITIONS.
- 1510.2310 GENERAL GUIDANCE.
- 1510.2315 APPLICATION FOR INSPECTION.
- 1510.2320 SEED POTATOES ELIGIBLE FOR MINNESOTA CERTIFICATION PLANTING.
- 1510.2325 REQUIREMENTS FOR CERTIFIED SEED POTATO PRODUCTION.
- 1510.2330 REQUIREMENTS FOR PRODUCTION OF DIFFERENT CLASSES OF CERTIFIED SEED POTATOES.
- 1510.2335 FEES.
- 1510.2340 FIELD INSPECTION FEES.
- 1510.2345 WINTER-TESTING FEES.
- 1510.2350 FEES FOR OTHER DISEASE TESTING.
- 1510.2355 MINNESOTA CERTIFIED SEED POTATO GRADES AND TOLERANCES.

RULES FOR PET FOOD AND SPECIALTY PET FOOD

- 1510.2500 DEFINITIONS AND TERMS.
- 1510.2510 LABEL FORMAT AND LABELING.
- 1510.2520 BRAND AND PRODUCT NAMES.
- 1510.2530 EXPRESSION OF GUARANTEES.
- 1510.2540 INGREDIENTS.
- 1510.2550 DRUGS AND PET FOOD ADDITIVES.
- 1510.2560 NUTRITIONAL ADEQUACY.
- 1510.2570 FEEDING DIRECTIONS.
- 1510.2580 STATEMENTS OF CALORIE CONTENT.
- 1510.2590 DESCRIPTIVE TERMS.
- 1510.2595 MANUFACTURER OR DISTRIBUTOR; NAME AND ADDRESS.

1510.0010 [Repealed, 9 SR 693]

AGRICULTURAL SEEDS

1510.0011 LABELING VARIETY, VARIETY NOT STATED, AND BRAND; EXAMPLES.

Subpart 1. **Definition; brand.** As used in this part, “brand” means a word, mark, or picture representing a trademark or a term taken from a trademark which indicates the owner, originator, or labeler of the seed and does not indicate the genetic identity of the seed.

Subp. 2. **Labeling variety.** In accordance with Minnesota Statutes, section 21.82, subdivision 2, paragraph (a), the commissioner designates that all kinds of agricultural and vegetable seed must be labeled to show the variety name unless otherwise specified in subpart 3.

Subp. 3. **Labeling variety not stated.** Unless otherwise specified in this subpart, the words “variety not stated” must be shown on agricultural seed labels if any of the following circumstances exist:

A. the variety name is not known for a nonhybrid seed and it cannot be determined by examining the seed and records of the seed lot;

B. the variety name is known for a nonhybrid biennial or perennial seed, in which case the variety name may be omitted from the seed label but only when written permission to do so is signed by the owner or originator and is part of the record for the seed lot;

C. two or more varieties are combined to form a blend, in which case the variety names and the percentages by weight of the components together may be omitted from the seed label but only when information concerning the varieties used and the proportion of each in the blend is part of the record for the seed lot; or

D. lawn and turf grass seeds are sold in mixtures, in which case the variety name and the words “variety not stated” may be omitted from the seed label if none of the components are listed and sold by brand name.

Subp. 4. **Labeling brands.** When agricultural seed is labeled with a brand, trademark, or term taken from a brand or trademark, the seed label must clearly identify the term with the word “brand” and as being other than part of the variety name.

Subp. 5. **Examples.** The examples in this subpart indicate the required arrangements of terms used to label variety, variety not stated, and brand. The size type used to indicate the kind name on the seed label must also be used for all other terms specified in the examples.

A. When the variety name is stated, the terms designating the kind and variety may appear in any order but must be in close proximity to each other.

B. When both a brand and variety name are stated, the terms must be shown in the following order from left to right or top to bottom: the brand name, the word “brand,” the variety name, and the kind name.

C. When a brand name but no variety name is stated, the terms must be shown on the seed label in the following order from left to right or top to bottom: the brand name, the word “brand,” the kind name, and the words “variety not stated.” If the seed offered for sale is a blend, the word “blend” must be inserted between the kind name and the words “varieties not stated.”

Statutory Authority: *MS s 21.82 subd 2; 21.85 subd 11*

History: *10 SR 622*

1510.0020 DISCLAIMER CLAUSE.

It shall be unlawful for vendors or sellers of agricultural seed to print upon the seed labels or tags, or to use, attach, or print upon literature, or state in any manner,

any form of wording designed as a disclaimer or statement that purposes to disclaim responsibility of the vendor or seller for the data on the label required by law.

Statutory Authority: *MS s 21.85 subd 11*

1510.0030 LABEL SHOWING PERCENT OF HARD SEED.

The label required on all agricultural seed containers shall show the percent of hard seed, when present, separately from the germination percent. It is permissible to combine these percentages and list them on the label as "total percent germination and hard seed." They shall not be stated as "total live seed," "total germination," or in any other unauthorized manner.

Statutory Authority: *MS s 21.85 subd 11*

1510.0040 LABELING OF SEED BINS AND OTHER BULK CONTAINERS.

When agricultural seeds are sold out of the farmers' or seed vendors' bins or other bulk containers which are in retail sales rooms or to which the consumer buyers have access before buying for the purpose of examining the seed and the label thereof, a complete label shall be attached to such bin or other bulk container in a conspicuous place on the exterior of the container, where the buyer may read it conveniently before making a purchase of the seed. Seed labels and label data in the records or files of the seed seller do not meet the requirements of this part.

Statutory Authority: *MS s 21.85 subd 11*

1510.0050 TOLERANCES.

The following tolerances shall be recognized between the percentages or rates of occurrence found by analysis, test, or examination in the administration of the law and percentages or rates of occurrence required or stated as required by the law. Unless otherwise provided, tolerances shall be determined by applying the formulas in parts 1510.0060 to 1510.0100 to the percentages or rates of occurrence found in the administration of the law.

Statutory Authority: *MS s 21.85 subd 11*

1510.0060 PURITY TOLERANCES.

In determination of the tolerance for the percentage of the distinguishable kind, type, or variety (pure seed), weed seeds, other crop seeds, and inert matter, the sample shall be first considered as made up of two parts:

A. the percentage of the component (pure seed, weed seed, crop seed, or inert matter as the case may be) being considered, and

B. the difference between that percentage and 100.

The number represented by item A is then multiplied by the number represented by item B and the product is divided by 100. The resulting number is then multiplied by 0.2 (2/10) and the resulting product added to 0.2 or 0.6 as indicated in the following formulas:

$$\text{Pure seed tolerance} = 0.6 + \frac{(0.2 \times a \times b)}{100}$$

$$\text{Weed seeds, other crop seeds and inert matter tolerance} = 0.2 + \frac{(0.2 \times a \times b)}{100}$$

Statutory Authority: *MS s 21.85 subd 11*

1510.0070 ADDITIONAL TOLERANCE.

An additional tolerance shall be allowed for the following kinds of seeds and mixtures containing any of these kinds of seeds singly or combined in excess of 50

MINNESOTA RULES 2005

1510.0070 SEEDS, FERTILIZERS, FEEDS

716

percent. The tolerance is to be obtained by adding to the regular tolerance mentioned above the product obtained by multiplying the regular tolerance by the lesser of part 1510.0060, items A and B divided by 100.

Agrostis spp.
Andropogon spp.
Bermuda grass
Bouteloua spp.
Brome grass
Buffalo grass
Carpet grass
Dallis grass
Festuca spp.
Guinea grass
Indian grass, yellow
Meadow foxtail
Molasses grass
Oatgrass, tall
Orchard grass
Panic grass, blue
Poa spp.
Rhodes grass
Ricegrass, Indian
Sweet vernal grass
Switch grass
Vasey grass
Velvet grass
Wheatgrass, crested
Wheatgrass, western
Wild-rye, Canada

Statutory Authority: *MS s 21.85 subd 11*

1510.0080 NOXIOUS WEED SEED TOLERANCES.

The following tolerances for rates of occurrence of noxious weed seeds (prohibited and restricted) shall be recognized and shall be applied to the number of noxious weed seeds found by analysis in the quantity of seed specified by the state seed laboratory. Representations showing the rate of occurrence indicated in columns 2 and 4 shall be considered within the tolerance if no more than the accompanying number in columns 1 and 3 are found by analysis in the administration of the law. For rates of occurrence higher than those shown in the table and in case of additional or more extensive analysis, a tolerance based on a degree of certainty of five percent ($P = 0.05$) will be recognized.

| Number Found By Analysis | The Following Are Within The Tolerance |
|-----------------------------|--|
| 2 | 0 |
| 4 | 1 |
| 6 | 2 |
| 8 | 3 |
| 9 | 4 |
| 11 | 5 |
| 12 | 6 |
| 13 | 7 |
| 14 | 8 |

MINNESOTA RULES 2005

717

SEEDS, FERTILIZERS, FEEDS 1510.0111

| | |
|----|----|
| 16 | 9 |
| 17 | 10 |
| 18 | 11 |
| 20 | 12 |
| 21 | 13 |
| 22 | 14 |
| 23 | 15 |
| 24 | 16 |
| 25 | 17 |
| 27 | 18 |
| 28 | 19 |
| 29 | 20 |
| 30 | 21 |

Statutory Authority: *MS s 21.85 subd 11*

1510.0090 GERMINATION.

The following tolerances are applicable to the percentage of germination and also to the sum of the germination plus the hard seed when 400 or more seeds are tested.

| Found by test | Tolerance |
|-----------------------------|-----------|
| 96 or over | 5 |
| 90 or over but less than 96 | 6 |
| 80 or over but less than 90 | 7 |
| 70 or over but less than 80 | 8 |
| 60 or over but less than 70 | 9 |
| Less than 60 | 10 |

When only 200 seeds of a component in a mixture are tested, two percent shall be added to the above germination tolerances.

Statutory Authority: *MS s 21.85 subd 11*

1510.0100 PURE LIVE SEED.

The tolerance for pure live seed shall be determined by applying the respective tolerances to the germination plus the hard seed and the pure seed.

Statutory Authority: *MS s 21.85 subd 11*

1510.0110 [Repealed, 27 SR 1820]

1510.0111 INFORMATION REQUIRED ON HYBRID SEED CORN LABELS.

Seed labels for hybrid corn varieties or blends of varieties for either grain or forage purposes must include the day classification listed under the heading "Relative Maturity." The labeled day classification must be within three days of the actual maturity rating determined in comparative trials by the Minnesota agricultural experiment station. For hybrid seed corn blends, the relative maturity and the germination percentage must be derived by averaging the relative maturities and germination percentages according to the proportion of each component in the blend.

Statutory Authority: *MS s 21.85*

History: *9 SR 693; 22 SR 973*

1510.0120 [Repealed, 9 SR 693]

1510.0130 [Repealed, 27 SR 1820]

1510.0140 [Repealed, 27 SR 1820]

1510.0150 [Repealed, 27 SR 1820]

1510.0160 [Repealed, 9 SR 693]

1510.0161 KINDS OF LAWN AND TURF GRASS SEEDS EXEMPT FROM TEN PERCENT INERT MATTER LIMITATION.

In accordance with Minnesota Statutes, section 21.82, subdivision 5, paragraph (a), Kentucky bluegrass is a kind of lawn and turf grass seed for which the ten percent inert matter limitation does not apply.

Statutory Authority: *MS s 21.85 subd 11*

History: *9 SR 693*

1510.0170 [Repealed, 9 SR 693]

1510.0171 STANDARDS, REQUIREMENTS, AND CONDITIONS FOR LABELING HERMETICALLY SEALED SEEDS.

In accordance with Minnesota Statutes, section 21.86, subdivision 1, paragraph (a), the following standards, requirements, and conditions must be met before seed is considered to be hermetically sealed:

A. The seed must be packed within nine months after harvest.

B. The container used must not allow water vapor penetration through any wall, including the seals, greater than 0.05 grams of water per 24 hours per 100 square inches of surface at 100 degrees Fahrenheit with a relative humidity on one side of 90 percent and on the other side of zero percent. Water vapor penetration or WVP is measured by the standards of the United States Bureau of Standards as:

$$\text{gm. H}_2\text{O}/24 \text{ hr.}/100 \text{ sq. in.}/100^\circ\text{F.}/90^{\text{HV.0H}}$$

C. The agricultural seed in the container must not exceed the following percentages of moisture, on a wet weight basis:

- (1) beet, field, 7.5 percent;
- (2) beet, sugar, 7.5 percent;
- (3) bluegrass, kentucky, 6.0 percent;
- (4) clover, crimson, 8.0 percent;
- (5) fescue, red, 8.0 percent;
- (6) ryegrass, annual, 8.0 percent;
- (7) ryegrass, perennial, 8.0 percent;
- (8) all others, 6.0 percent; and
- (9) mixture of above, 8.0 percent.

D. The vegetable seeds in the container must not exceed the following percentages of moisture, on a wet weight basis:

- (1) bean, garden, 7.0 percent;
- (2) bean, lima, 7.0 percent;
- (3) beet, 7.5 percent;
- (4) broccoli, 5.0 percent;
- (5) brussels sprout, 5.0 percent;
- (6) cabbage, 5.0 percent;
- (7) carrot, 7.0 percent;
- (8) cauliflower, 5.0 percent;
- (9) celeriac, 7.0 percent;
- (10) celery, 7.0 percent;
- (11) chard, Swiss, 7.5 percent;
- (12) Chinese cabbage, 5.0 percent;

- (13) chives, 6.5 percent;
- (14) collards, 5.0 percent;
- (15) corn, sweet, 8.0 percent;
- (16) cucumber, 6.0 percent;
- (17) eggplant, 6.0 percent;
- (18) kale, 5.0 percent;
- (19) kohlrabi, 5.0 percent;
- (20) leek, 6.5 percent;
- (21) lettuce, 5.5 percent;
- (22) muskmelon, 6.0 percent;
- (23) mustard, India, 5.0 percent;
- (24) onion, 6.5 percent;
- (25) onion, Welsh, 6.5 percent;
- (26) parsley, 6.5 percent;
- (27) parsnip, 6.0 percent;
- (28) pea, 7.0 percent;
- (29) pepper, 4.5 percent;
- (30) pumpkin, 6.0 percent;
- (31) radish, 5.0 percent;
- (32) rutabaga, 5.0 percent;
- (33) spinach, 8.0 percent;
- (34) squash, 6.0 percent;
- (35) tomato, 5.5 percent;
- (36) turnip, 5.0 percent;
- (37) watermelon, 6.5 percent; and
- (38) all others, 6.0 percent.

E. The container must be conspicuously labeled in not less than 8-point type to indicate:

- (1) that the container is hermetically sealed;
- (2) that the seed has been preconditioned as to moisture content; and
- (3) the calendar month and year in which the germination test was

completed.

F. The percentage of germination of seed at the time of packaging must be equal to or above the standards in part 1510.0231, subpart 1.

Statutory Authority: *MS s 21.85 subd 11*

History: *9 SR 693*

1510.0180 STATE SEED LABORATORY REPORT.

The report of any examination, test, or determination of the state seed laboratory as provided in Minnesota Statutes, section 21.85, subdivisions 2 and 12, applies directly to the sample of seed received and examined by the seed analyst and does not apply directly to any other sample or to the bulk of seed from which this sample was drawn, or to any other lot of seed. Any discrepancy between the analysis and the nature of the lot of seed from which the sample was drawn indicates inadequate sampling, and is the responsibility of the dealer or seller of the seed.

Statutory Authority: *MS s 21.85 subd 11*

1510.0190 PROHIBITED ADVERTISING; USES OF STATE TEST RESULTS.

The words "state tested" or "state" or the name of the state, the state Department of Agriculture, or state seed laboratory shall not be used for advertising or sales purpose or any other purpose in connection with any analysis test, identification, or

1510.0190 SEEDS, FERTILIZERS, FEEDS

720

examination of any seed or other material or any seed label price list, literature, or advertisement or in any other way to give the impression that the state or any of its subdivisions guarantees the data on any seed label or elsewhere or in any way assumes responsibility for the quality or nature of any seed or other material covered by any seed label, price list, advertisement, or literature.

Statutory Authority: *MS s 21.85 subd 11*

1510.0200 GRAIN SOLD UNDER VARIETY NAMES.

Flax, oats, and other grains sold to farmers in seed quantities in the spring or at seeding time under variety names or where variety names are mentioned in the transaction are subject to all agricultural seed requirements as to cleaning, testing, and labeling unless such seed sales are definitely known to be for nonseed purposes.

Statutory Authority: *MS s 21.85 subd 11*

1510.0210 LABELING FOR SEED SAMPLES.

Samples of all sizes of agricultural seed which are sent to or given to persons or are exposed or displayed for sale as an inducement to prospective retail or consumer purchases shall be labeled fully. The responsibility for such labeling shall rest on the person who owns the seed or in whose possession or place of business such samples are placed on display. No person shall permit any agricultural seed for sale or samples thereof to be on display in or on the person's premises which are not fully labeled.

Statutory Authority: *MS s 21.85 subd 11*

History: *17 SR 1279*

1510.0220 CORRECTION OF ERRONEOUS SEED LABELS.

Whenever, by examination of the label or by resampling and retesting of the seed or by other dependable information, the label on any seed container of agricultural seed is found to be unlawful or to be in error beyond the limits of tolerance allowed by law, the label shall be corrected at once if the seed is of legal quality. Otherwise the seed shall be removed from sale at once.

Statutory Authority: *MS s 21.85 subd 11*

1510.0230 [Repealed, 9 SR 693]**1510.0231 GERMINATION STANDARDS; STANDARDIZED GERMINATION TESTING PROCEDURES.**

Subpart 1. **Vegetable seed germination.** In accordance with Minnesota Statutes, section 21.82, subdivision 7, paragraph (a), clause (2), the germination standards for vegetable seeds prepared for use by home gardeners are as follows:

- A. artichoke, 60 percent;
- B. asparagus, 70 percent;
- C. asparagus bean, 75 percent;
- D. bean, garden, 70 percent;
- E. bean, lima, 70 percent;
- F. bean, runner, 75 percent;
- G. beet, 65 percent;
- H. broadbean, 75 percent;
- I. broccoli, 75 percent;
- J. brussels sprout, 70 percent;
- K. burdock, great, 60 percent;
- L. cabbage, 75 percent;
- M. cabbage, tronchuda, 75 percent;
- N. cantaloupe (see muskmelon);

MINNESOTA RULES 2005

721

SEEDS, FERTILIZERS, FEEDS 1510.0231

O. cardoon, 60 percent;
P. carrot, 55 percent;
Q. cauliflower, 75 percent;
R. celeriac, 55 percent;
S. celery, 55 percent;
T. chard, Swiss, 65 percent;
U. chicory, 65 percent;
V. Chinese cabbage, 75 percent;
W. chives, 50 percent;
X. citron, 65 percent;
Y. collards, 80 percent;
Z. corn, sweet, 75 percent;
AA. cornsalad, 70 percent;
BB. cowpea, 75 percent;
CC. cress, garden, 75 percent;
DD. cress, upland, 60 percent;
EE. cress, water, 40 percent;
FF. cucumber, 80 percent;
GG. dandelion, 60 percent;
HH. eggplant, 60 percent;
II. endive, 70 percent;
JJ. kale, 75 percent;
KK. kale, Chinese, 75 percent;
LL. kale, Siberian, 75 percent;
MM. kohlrabi, 75 percent;
NN. leek, 60 percent;
OO. lettuce, 80 percent;
PP. muskmelon, 75 percent;
QQ. mustard, India, 75 percent;
RR. mustard, spinach, 75 percent;
SS. okra, 50 percent;
TT. onion, 70 percent;
UU. onion, Welsh, 70 percent;
VV. pak-choi, 75 percent;
WW. parsley, 60 percent;
XX. parsnip, 60 percent;
YY. pea, 80 percent;
ZZ. pepper, 55 percent;
AAA. pumpkin, 75 percent;
BBB. radish, 75 percent;
CCC. rhubarb, 60 percent;
DDD. rutabaga, 75 percent;
EEE. salsify, 75 percent;
FFF. sorrel, 65 percent;
GGG. soybean, 75 percent;
HHH. spinach, 60 percent;
III. spinach, New Zealand, 40 percent;
JJJ. squash, 75 percent;

- KKK. tomato, 75 percent;
- LLL. tomato, husk, 50 percent;
- MMM. turnip, 80 percent;
- NNN. watermelon, 70 percent;

Subp. 2. **Flower seed germination.** In accordance with Minnesota Statutes, section 21.82, subdivision 8, paragraph (a), clause (3), the germination standards for flower seeds prepared for use by home gardeners are set in this subpart.

A. The kinds of flower seeds listed below are those for which standard testing procedures have been prescribed. The percentage listed opposite each kind is the germination standard for that kind. For the kinds marked with an asterisk, the percentage is the total of percentage germination and percentage hard seed.

- (1) Achillea (The Pearl), *Achillea ptarmica*, 50 percent;
- (2) African Daisy, *Dimorphotheca aurantiaca*, 55 percent;
- (3) Ageratum, *Ageratum mexicanum*, 60 percent;
- (4) Agrostemma (rose campion), *Agrostemma coronaria*, 65 percent;
- (5) Alyssum, *Alyssum compactum*, *A. maritimum*, *A. procumbens*, *A. saxatile*, 60 percent;
- (6) Amaranthus, (*Amaranthus* spp.) 65 percent;
- (7) Anagalis (pimpernel), (*Anagalis arvensis*, *Anagalis coerulea*, *Anagalis grandiflora*), 60 percent;
- (8) Anemone, *Anemone coronaria*, *A. pulsatilla*, 55 percent;
- (9) Angel's Trumpet, *Datura arborea*, 60 percent;
- (10) Arabis, *Arabis alpina*, 60 percent;
- (11) Arctotis (African lilac daisy), (*Arctotis grandis*), 45 percent;
- (12) Armeria, (*Armeria formosa*), 55 percent;
- (13) Asparagus, fern, (*Asparagus plumosus*), 50 percent;
- (14) Asparagus, sprenger, (*Asparagus sprengeri*), 55 percent;
- (15) Aster, China, *Callistephus chinensis*, except Pompon, Powderpuff, and Princess types, 55 percent
- (16) Aster, China, *Callistephus chinensis*, Pompon, Powderpuff, and Princess types, 50 percent;
- (17) Aubretia, *Aubretia deltoides*, 45 percent;
- (18) Balsam, *Impatiens balsamina*, 70 percent;
- (19) Begonia, (*Begonia fibrous rooted*), 60 percent;
- (20) Begonia, (*Begonia tuberous rooted*), 50 percent;
- (21) Bells of Ireland, (*Molucella laevis*), 60 percent;
- (22) Brachycome (swan river daisy), (*Brachycome iberidifolia*), 60 percent;
- (23) Browallia, (*Browallia elata* and *B. speciosa*), 65 percent;
- (24) Bupthalmum (sunwheel), (*Bupthalmum salicifolium*), 60 percent;
- (25) Calceolaria, (*Calceolaria* spp.), 60 percent;
- (26) Calendula, *Calendula officinalis*, 65 percent;
- (27) California Poppy, *Eschscholtzia californica*, 60 percent;
- (28) Calliopsis, *Coreopsis bicolor*, *C. drummondii*, *C. elegans*, 65 percent;
- (29) Campanula:
 - (a) Canterbury Bells, *Campanula medium*, 60 percent;
 - (b) Cup and Saucer Bellflower, *Campanula medium calycanthema*, 60 percent;
 - (c) Carpathian Bellflower, *Campanula carpatica*, 50 percent;
 - (d) Peach Bellflower, *Campanula persicifolia*, 50 percent;
- (30) Candytuft, Annual, *Iberis amara*, *I. umbellata*, 65 percent;

MINNESOTA RULES 2005

723

SEEDS, FERTILIZERS, FEEDS 1510.0231

- (31) Candytuft, Perennial, *Iberis gibraltarica*, *I. sempervirens*, 55 percent;
- (32) Castor Bean, *Ricinus communis*, 60 percent;
- (33) Cathedral Bells, *Cobaea scandens*, 65 percent;
- (34) Celosia, *Celosia argentea*, 65 percent;
- (35) Centaurea (Basket Flower), *Centaurea americana*, Cornflower, *C. cyanus*, Dusty Miller, *C. candidissima*, Royal Centaurea, *C. imperialis*, Sweet Sultan, *C. moschata*, Velvet Centaurea, *C. gymnocarpa*, 60 percent;
- (36) Chinese Forget-me-not, *Cynoglossum amabile*, 55 percent;
- (37) Chrysanthemum, Annual, *Chrysanthemum carinatum*, *C. coronarium*, *C. segetum*, 40 percent;
- (38) Clarkia, *Clarkia elegans*, 65 percent;
- (39) Cleome, *Cleome gigantea*, 65 percent;
- (40) Columbine, *Aquilegia* spp., 50 percent;
- (41) Coral Bells, *Heuchera sanguinea*, 55 percent;
- (42) Coreopsis, Perennial, *Coreopsis lanceolata*, 40 percent;
- (43) Cosmos, Sensation, Mammoth, and Crested types, *Cosmos bipinnatus*, Klondyke type, *C. sulfureus*, 65 percent;
- (44) Dahlia, *Dahlis* spp., 55 percent;
- (45) Delphinium, Perennial, Belladonna and Bellamosum types, Cardinal Larkspur, *Delphinium cardinale*, Chinensis types, Pacific Giant, Gold Medal, and other hybrids of *D. elatum*, 55 percent;
- (46) Dianthus, Carnation, *Dianthus caryophyllus*, 60 percent;
- (47) Dianthus, China Pinks, *Dianthus chinensis*, *heddewigi*, *heddensis*, 70 percent;
- (48) Grass Pinks, *Dianthus plumarius*, 60 percent;
- (49) Maiden Pinks, *Dianthus deltoides*, 60 percent;
- (50) Sweet William, *Dianthus barbatus*, 70 percent;
- (51) Sweet Wivelsfield, *Dianthus allwood*, 60 percent;
- (52) Dracaena, *Dracaena indivisa*, 55 percent;
- (53) English Daisy, *Bellis perennis*, 55 percent;
- (54) Foxglove, *Digitalis* spp., 60 percent;
- (55) Gaillardia, Annual, *Gaillardia pulchella*, *G. picta*, Perennial, *G. grandiflora*, 45 percent;
- (56) Geum, *Geum* spp., 55 percent;
- (57) Gilia, *Gilia* spp., 65 percent;
- (58) Godetia, *Godetia amoena*, *G. grandiflora*, 65 percent;
- (59) Gourds: Yellow Flowered, *Cucurbita pepo*; White Flowered, *Lagenaria siceraria*; Dishcloth, *Luffa cylindrica*, 70 percent;
- (60) Gypsophila: Annual Baby's Breath, *Gypsophila elegans*; Perennial Baby's Breath, *G. paniculata*, *G. pacifica*, *G. repens*, 70 percent;
- (61) Helenium, (*Helenium autumnale*), 40 percent;
- (62) Helichrysum, *Helichrysum monstrosum*, 60 percent;
- (63) Heliopsis, (*Heliopsis scabra*), 55 percent;
- (64) Helipterum (*Acroclinium*), (*Helipterum roseum*), 60 percent;
- (65) Hesperis (sweet rocket), (*Hesperis matronalis*), 65 percent;
- (66) *Hollyhock, *Althea rosea*, 65 percent;
- (67) Hunnemanian (mexican tulip poppy), (*Hunnemanian fumariaefolia*), 60 percent;
- (68) *Hyacinth bean, (*Dolichos lablab*), 70 percent;
- (69) Impatiens, (*Impatiens holstii*, *I. sultani*), 55 percent;

MINNESOTA RULES 2005

1510.0231 SEEDS, FERTILIZERS, FEEDS

724

- (70) *Ipomea, Cypress Vine, *Ipomea quamoclit*; Moonflower, *I. noctiflora*;
Morning Glories, Cardinal Climber, Hearts and Honey Vine, *Ipomea* spp., 75 percent;
- (71) Jerusalem cross (maltese cross), (*Lychnis chalconica*), 70 percent;
- (72) Job's Tears, *Coix lacrymajobi*, 70 percent;
- (73) Kochia, *Kochia childsii*, 55 percent;
- (74) Larkspur, Annual, *Delphinium ajacis*, 60 percent;
- (75) Lantana, *Lantana camara*, *L. hybrida*, 35 percent;
- (76) Liliium (regal lily), (*Lilium regale*), 50 percent;
- (77) Linaria, *Linaria* spp., 65 percent;
- (78) Lobelia, Annual, *Lobelia erinus*, 65 percent;
- (79) Lunaria, Annual, *Lunaria annua*, 65 percent;
- (80) *Lupine, *Lupinus* spp., 65 percent;
- (81) Marigold, *Tagetes* spp., 65 percent;
- (82) Marvel of Peru, *Mirabilis jalapa*, 60 percent;
- (83) Matricaria (feverfew), (*Matricaria* spp.), 60 percent;
- (84) Mignonette, *Reseda odorata*, 55 percent;
- (85) Myosotis, *Myosotis alpestris*, *M. oblongata*, *M. palustris*, 50 percent;
- (86) Nasturtium, *Tropaeolum* spp., 60 percent;
- (87) Nemesia, *Nemesia* spp., 65 percent;
- (88) Nemophila, *Nemophila insignis*, 70 percent;
- (89) Nemophila, Spotted, (*Nemophila maculata*), 60 percent;
- (90) Nicotiana, *Nicotiana affinis*, *N. sanderae*, *N. sylvestris*, 65 percent;
- (91) Nierembergia, *Nierembergia* spp., 55 percent;
- (92) Nigella, *Nigella damascena*, 55 percent;
- (93) Pansy, *Viola tricolor*, 60 percent;
- (94) Penstemon, *Penstemon barbatus*, *P. grandiflorus*, *P. laevigatus*, *P. pubescens*, 60 percent;
- (95) Petunia, *Petunia* spp., 45 percent;
- (96) Phacelia, *Phacelia campanularia*, *P. minor*, *P. tanacetifolia*, 65 percent;
- (97) Phlox, Annual, *Phlox drummondii* all types and varieties, 55 percent;
- (98) Physalis, *Physalis*, spp., 60 percent;
- (99) Platycodon (balloon flower), (*Platycodon grandiflorum*), 60 percent;
- (100) Plumbago, cape, (*Plumbago capensis*), 50 percent;
- (101) Poppy: Shirley Poppy, *Papaver rhoeas*; Iceland Poppy, *P. nudicaule*;
Oriental Poppy, *P. orientale*; Tulip Poppy, *P. glaucum*, 60 percent;
- (102) Portulaca, *Portulaca grandiflora*, 55 percent;
- (103) Primula (primrose), (*Primula* spp.), 50 percent;
- (104) Pyrethrum (painted daisy), (*Pyrethrum coccineum*), 60 percent;
- (105) Salpiglossis, *Salpiglossis gloxinaeflora*, *S. sinuata*, 60 percent;
- (106) Salvia, Scarlet Sage, *Salvia splendens*; Mealeycup Sage (blue bedder),
Salvia farinacea, 50 percent;
- (107) Saponaria, *Saponaria ocymoides*, *S. vaccaria*, 60 percent;
- (108) Scabiosa, Annual, *Scabiosa atropurpurea*, 50 percent;
- (109) Scabiosa, Perennial, *Scabiosa caucasica*, 40 percent;
- (110) Schizanthus, *Schizanthus* spp., 60 percent;
- (111) *Sensitive plant (mimosa), (*Mimosa pudica*), 65 percent;
- (112) Shasta Daisy, *Chrysanthemum maximum*, *C. leucanthemum*, 65
percent;
- (113) Snapdragon, *Antirrhinum* spp., 55 percent;

MINNESOTA RULES 2005

725

SEEDS, FERTILIZERS, FEEDS 1510.0241

- (114) Solanum, *Solanum* spp., 60 percent;
- (115) Statice, (*Statice sinuata*, *S. suworonii*) (flower heads), 50 percent;
- (116) Stocks: Common, *Mathiola incana*; Evening Scented, *Mathiola bicornis*, 65 percent;
- (117) Sunflower, *Helianthus* spp., 65 percent;
- (118) *Sweet Pea, Annual and Perennial other than dwarf bush, *Lathyrus odoratus*, *L. latifolius*, 75 percent;
- (119) *Sweet Pea, dwarf bush, *Lathyrus odoratus*, 65 percent;
- (120) Tahoka daisy, (*Machaeanthera tanacetifolia*), 60 percent;
- (121) Thunbergia, *Thunbergia alata*, 60 percent;
- (122) Torch flower, *Tithonia speciosa*, 70 percent;
- (123) Torenia (wishbone flower), (*Torenia fournieri*), 70 percent;
- (124) Tritoma, *Kniphofia* spp., 65 percent;
- (125) Verbena, Annual, *Verbena hybrida*, 35 percent;
- (126) Vinca, *Vinca rosea*, 60 percent;
- (127) Viola, *Viola cornuta*, 55 percent;
- (128) Virginian stocks, (*Malcolmia maritima*), 65 percent;
- (129) Wallflower, *Cheiranthus allioni*, 65 percent;
- (130) Yucca (Adam's needle), (*Yucca filamentosa*), 50 percent;
- (131) Zinnia (except Linearis and Creeping), *Zinnia angustifolia*, *Z. elegans*, *Z. grandiflora*, *Z. gracillima*, *Z. haegeana*, *Z. multiflora*, *Z. pumila*, 65 percent; and
- (132) Zinnia, Linearis and Creeping, *Zinnia linearis*, *Sanvitalia procumbens*, 50 percent.

B. A mixture of kinds of flower seeds is below standard if the germination of any kind or combination of kinds constituting 25 percent or more of the mixture by number is below standard for the kind or kinds involved.

Statutory Authority: *MS s 21.85 subd 11*

History: 9 SR 693

1510.0240 [Repealed, 9 SR 693]

1510.0241 STANDARDIZED GERMINATION TESTING PROCEDURES AVAILABLE.

A. In accordance with Minnesota Statutes, section 21.83, subdivision 2, paragraph (h), item B lists the kinds of tree and shrub seed that have standardized germination testing procedures available for them.

B. Tree and shrub seeds with standardized germination testing procedures available for them are as follows:

- (1) *Abies amabilis* (Dougl.) Forbes, Pacific Silver Fir;
- (2) *Abies balsamea* (L.) Mill., Balsam Fir;
- (3) *Abies concolor* (Gord. and Glend.) Lindl., White Fir;
- (4) *Abies fraseri* (Pursh.) Poir, Fraser Fir;
- (5) *Abies grandis* (Dougl.) Lindl., Grand Fir;
- (6) *Abies homolepis* Sieb. and Zucc., Nikko Fir;
- (7) *Abies lasiocarpa* (Hook.) Nutt., Subalpine Fir;
- (8) *Abies magnifica* A. Murr., California Red Fir;
- (9) *Abies magnifica* var. *shastensis* Lemm., Shasta Red Fir;
- (10) *Abies procera* Rehd., Nobel Fir;
- (11) *Abies veitchii* (Lindl.), Veitch Fir;
- (12) *Acer ginnala* Maxim., Amur Maple;

MINNESOTA RULES 2005

1510.0241 SEEDS, FERTILIZERS, FEEDS

726

- (13) *Acer macrophyllum* Pursh., Bigleaf Maple;
- (14) *Acer negundo* L., Box Elder;
- (15) *Acer pensylvanicum* L., Striped Maple;
- (16) *Acer platanoides* L., Norway Maple;
- (17) *Acer pseudoplatanus* L., Sycamore Maple;
- (18) *Acer rubrum* L., Red Maple;
- (19) *Acer saccharinum* L., Silver Maple;
- (20) *Acer saccharum* Marsh., Sugar Maple;
- (21) *Acer spicatum* Lam., Mountain Maple;
- (22) *Aesculus pavia* L., Red Buckeye;
- (23) *Ailanthus altissima* (Mill.) Swingle, Tree of Heaven, Ailanthus;
- (24) *Berberis thunbergii* DC., Japanese Barberry;
- (25) *Berberis vulgaris* L., European Barberry;
- (26) *Betula lenta* L., Sweet Birch;
- (27) *Betula alleghaniensis* Britton, Yellow Birch;
- (28) *Betula nigra* L., River Birch;
- (29) *Betula papyrifera* Marsh., Paper Birch;
- (30) *Betula pendula* Roth., European White Birch;
- (31) *Betula populifolia* Marsh., Gray Birch;
- (32) *Carya illinoensis* (Wang.) K. Koch, Pecan;
- (33) *Carya ovata* (Mill) K. Koch, Shagbark Hickory;
- (34) *Casuarina* spp., Beefwood;
- (35) *Catalpa bignonioides* Walt., Southern Catalpa;
- (36) *Catalpa speciosa* Warder., Northern Catalpa;
- (37) *Cedrus atlantica* Manetti, Atlas Cedar;
- (38) *Cedrus deodara* (Roxb.) Loud., Deodar Cedar;
- (39) *Cedrus libani* (Loud.), Cedar of Lebanon;
- (40) *Celastrus scandens* L., American Bittersweet;
- (41) *Celastrus orbiculata* Thunb., Oriental Bittersweet;
- (42) *Chamaecyparis lawsoniana* (A. Murr.) Parl, Port Orford Cedar;
- (43) *Chamaecyparis nootkatensis* (D. Don.) Spach., Alaska Cedar;
- (44) *Cornus florida* L., Flowering Dogwood;
- (45) *Cornus Stolonifera* Michx., Red osier Dogwood;
- (46) *Crataegus mollis*, Downy Hawthorn;
- (47) *Cupressus arizonica* Greene, Arizona Cypress;
- (48) *Eucalyptus deglupta*;
- (49) *Eucalyptus grandis*;
- (50) *Fraxinus americana* L., White Ash;
- (51) *Fraxinus excelsior* L., European Ash;
- (52) *Fraxinus latifolia* Benth., Oregon Ash;
- (53) *Fraxinus nigra* Marsh., Black Ash;
- (54) *Fraxinus pensylvanica* Marsh., Green Ash;
- (55) *Fraxinus pensylvanica* var. *lanceolata* (Borkh.) Sarg., Green Ash;
- (56) *Gleditsia triacanthos* L., Honey Locust;
- (57) *Grevillea robusta*, Silk-oak;
- (58) *Larix decidua* Mill., European Larch;
- (59) *Larix eurolepis* Henry, Dunkfeld Larch;
- (60) *Larix leptolepis* (Sieb. and Zucc.) Gord., Japanese Larch;

MINNESOTA RULES 2005

727

SEEDS, FERTILIZERS, FEEDS 1510.0241

- (61) *Larix occidentalis* Nutt., Western Larch;
- (62) *Larix sibirica* Ledeb., Siberian Larch;
- (63) *Libocedrus decurrens*, incense-cedar;
- (64) *Liquidambar styraciflua* L., Sweetgum;
- (65) *Liriodendron tulipifera* L., yellow-poplar;
- (66) *Magnolia grandiflora*, Southern magnolia;
- (67) *Malus* spp., Apple;
- (68) *Malus* spp., Crabapple;
- (69) *Nyssa aquatica* L., Water tupelo;
- (70) *Nyssa sylvatica* var. *sylvatica*, Black tupelo;
- (71) *Picea abies* (L.) Karst., Norway Spruce;
- (72) *Picea engelmanni* Parry, Engelmann Spruce;
- (73) *Picea glauca* (Moench.) Voss, White Spruce;
- (74) *Picea glauca* var. *albertiana* (S. Brown) Sarg., Western White Spruce,
Alberta White Spruce;
- (75) *Picea glehnii* (Fr. Schmidt) Mast., Sakhalin Spruce;
- (76) *Picea jezoensis* (Sieb. and Zucc.) Carr, Yeddo Spruce;
- (77) *Picea Koyamai* Shiras, Koyama Spruce;
- (78) *Picea mariana* (Mill.) B.S.P., Black Spruce;
- (79) *Picea omorika* (Pancic.) Purkyne, Serbian Spruce;
- (80) *Picea orientalis* (L.) Link., Oriental Spruce;
- (81) *Picea polita* (Sieb. and Zucc.) Carr, Tigertail Spruce;
- (82) *Picea pungens* Engelm., Blue Spruce, Colorado Spruce;
- (83) *Picea pungens* var. *glauca* Reg., Colorado Blue Spruce;
- (84) *Picea rubens* Sar., Red Spruce;
- (85) *Picea sitchensis* (Bong.) Carr, Sitka Spruce;
- (86) *Pinus albicaulis* Engelm., Whitebark Pine;
- (87) *Pinus aristata* Engelm., Bristlecone Pine;
- (88) *Pinus banksiana* Lamb., Jack Pine;
- (89) *Pinus canariensis* C. Smith, Canary Pine;
- (90) *Pinus caribaea*, Caribbean Pine;
- (91) *Pinus cembroides* Zucc., Mexican Pinyon Pine;
- (92) *Pinus clausa*, Sand Pine;
- (93) *Pinus contorta* Dougl., Lodgepole Pine;
- (94) *Pinus contorta* var. *latifolia* Engelm., Lodgepole Pine;
- (95) *Pinus coulteri* D. Don., Coulter Pine, Bigcone Pine;
- (96) *Pinus densiflora* Sieb. and Zucc., Japanese Red Pine;
- (97) *Pinus echinata* Mill., Shortleaf Pine;
- (98) *Pinus elliotii* Engelm., Slash Pine;
- (99) *Pinus flexilis* James, Limber Pine;
- (100) *Pinus glabra* Walt., Spruce Pine;
- (101) *Pinus griffithii* McClelland, Himalayan Pine;
- (102) *Pinus halepensis* Mill., Aleppo Pine;
- (103) *Pinus jeffreyi* Grev. and Balf., Jeffrey Pine;
- (104) *Pinus khasya* Royle, Khasia Pine;
- (105) *Pinus lambertiana* Dougl., Sugar Pine;
- (106) *Pinus heldreichii* var. *leucodermis* (Ant.) Markgraf ex Fitschen,
Balkan Pine, Bosnian Pine;
- (107) *Pinus markusii* DeVriese, Markus Pine;

MINNESOTA RULES 2005

- Pine;
- (108) *Pinus monticola* Dougl., Western White Pine;
 - (109) *Pinus mugo* Turra., Mountain Pine;
 - (110) *Pinus mugo* var. *mughus* (Scop.) Zenari, Mugo Swiss Mountain Pine;
 - (111) *Pinus muricata* D. Don., Bishop Pine;
 - (112) *Pinus nigra* Arnold, Austrian Pine;
 - (113) *Pinus nigra poiretiana* (Ant.) Aschers and Graebn., Corsican Pine;
 - (114) *Pinus palustris* Mill., Longleaf Pine;
 - (115) *Pinus parviflora* Sieb. and Zucc., Japanese White Pine;
 - (116) *Pinus patula* Schl. and Cham., Jelecote Pine;
 - (117) *Pinus pinaster* Sol., Cluster Pine;
 - (118) *Pinus pinea* L., Italian Stone Pine;
 - (119) *Pinus ponderosa* Laws., Ponderosa Pine, Western Yellow Pine;
 - (120) *Pinus radiata* D. Don., Monterey Pine;
 - (121) *Pinus resinosa* Ait., Red Pine, Norway Pine;
 - (122) *Pinus rigida* Mill., Pitch Pine;
 - (123) *Pinus serotina* Michx., Pond Pine;
 - (124) *Pinus strobus* L., Eastern White Pine;
 - (125) *Pinus sylvestris* L., Scotch Pine;
 - (126) *Pinus taeda* L., Loblolly Pine;
 - (127) *Pinus taiwanensis* Hayata, Formosa pine;
 - (128) *Pinus thunbergii* Parl., Japanese Black pine;
 - (129) *Pinus virginiana* Mill., Virginia Pine, Scrub Pine;
 - (130) *Plantanus occidentalis* L., American Sycamore;
 - (131) *Populus* spp., Poplars;
 - (132) *Prunus armeriaca* L., Apricot;
 - (133) *Prunus avium* (L.) L., Cherry;
 - (134) *Prunus domestica* L., Plum, Prune;
 - (135) *Prunus persica* Batsch., Peach;
 - (136) *Pseudotsuga menziesii* var. *glauca* (Beissn.) Franco, Blue Douglas Fir;
 - (137) *Pseudotsuga menziesii* var. *caesia* (Beissn.) Franco, Gray Douglas Fir;
 - (138) *Pseudotsuga menziesii* var. *viridis*, Green Douglas Fir;
 - (139) *Pyrus communis* L., Pear;
 - (140) *Quercus* spp., (Red or black oak group);
 - (141) *Quercus alba* L., White Oak;
 - (142) *Quercus muehlenbergii* Engelm., Chinkapin Oak;
 - (143) *Quercus virginiana* Mill., Live Oak;
 - (144) *Rhododendron* spp., Rhododendron;
 - (145) *Robinia pseudoacacia* L., Black Locust;
 - (146) *Rosa multiflora* Thunb., Japanese Rose;
 - (147) *Sequoia gigantea* (Lindl.) Decne., Giant Sequoia;
 - (148) *Sequoia sempervirens* (D. Don.) Engl., Redwood;
 - (149) *Syringa vulgaris* L., Common lilac;
 - (150) *Thuja occidentalis* L., Northern White Cedar, Eastern Arborvitae;
 - (151) *Thuja orientalis* L., Oriental Arborvitae, Chinese Arborvitae;
 - (152) *Thuja plicata* Donn., Western Red Cedar, Giant Arborvitae;
 - (153) *Tsuga canadensis* (L.) Carr., Eastern Hemlock, Canada Hemlock;

(154) *Tsuga heterophylla* (Raf.) Sarg., Western Hemlock, Pacific Hemlock;

(155) *Ulmus americana* L., American Elm;

(156) *Ulmus parvifolia* Jacq., Chinese Elm;

(157) *Ulmus pumila* L., Siberian Elm;

(158) *Vitis vulpina* L., Riverbank Grape.

Statutory Authority: *MS s 21.85 subd 11*

History: 9 SR 693

1510.0250 [Repealed, 9 SR 693]

1510.0251 KIND AND VARIETY OR TYPE AND PERFORMANCE CHARACTERISTICS OF FLOWER SEEDS.

In accordance with Minnesota Statutes, section 21.82, subdivision 8, paragraph (a), clause (1), this part contains the requirements for labeling the kind and variety or a statement of type and performance characteristics for flower seeds prepared for use by home gardeners.

A. For seeds of plants grown primarily for their blooms;

(1) if the seeds are of a single named variety, the kind and variety must be stated, for example, "Marigold, Butterball";

(2) if the seeds are of a single type and color for which there is no specific variety name, the type of plant, if it is significant, and the type and color of bloom must be indicated, for example, "Scabiosa, Tall, Large Flowered, Double, Pink";

(3) if the seeds consist of a mixture of colors or a blend of varieties of a single kind, the kind name, the type of plant, if it is significant, and the type of bloom must be indicated, and it must be clearly indicated that the seed is mixed or blended, for example, "Marigold, Dwarf Double French, Mixed Colors" or "Marigold Blend, Dwarf Double French, Mixed Colors";

(4) if the seeds consist of a mixture of kinds, it must be clearly indicated that the seed is mixed and the specific use of the mixture must be indicated, for example, "Cut Flower Mixture" or "Rock Garden Mixture." Statements like "Wild Flower Mixture," "General Purpose Mixture," "Wonder Mixture," or any other statement which fails to indicate the specific use of the seed is not permitted unless the specific use of the mixture is also stated.

B. For seeds of plants grown for ornamental purposes other than their blooms, the kind and variety must be stated, or the kind must be stated together with a descriptive statement concerning the ornamental part of the plant, for example, "Ornamental Gourds, Small Fruited, Mixed."

Statutory Authority: *MS s 21.85 subd 11*

History: 9 SR 693

1510.0260 [Repealed, 9 SR 693]

1510.0261 REQUIREMENTS FOR COMPLETE RECORD.

The initial labeler of agricultural, vegetable, flower, tree, or shrub seeds subject to Minnesota Statutes, sections 21.82 and 21.83, must have the following information as part of the complete record for each seed lot sold:

A. lot number or other lot identification;

B. a copy of the genuine grower's declaration or tree seed collector's declaration or similar documents containing the same information;

C. copies of invoices showing the sale of each seed lot, including the name of the person the seed was sold to, the amount sold, the date of sale, the name of the kind or kind and variety, and the lot number;

D. a copy of the label that was attached to or accompanied the seed lot;

1510.0261 SEEDS, FERTILIZERS, FEEDS

730

E. a copy of the field and final certification documents, if applicable;

F. a copy of each report concerning the testing of the seed for labeling purposes; and

G. a file sample of the seed lot which is representative of the seed lot and of sufficient size to constitute an official sample as prescribed in section 201.43 of the Federal Seed Act regulations. The prescribed official sample sizes are as follows:

(1) two ounces of grass seed not otherwise mentioned, white or alsike clover, or seeds not larger than these;

(2) five ounces of red or crimson clover, alfalfa, lespedeza, ryegrass, bromegrass, millet, flax, rape, or seeds of similar size;

(3) one pound of sudan grass, sorghum, proso, or seeds of similar size;

(4) two pounds of cereals, vetch, or seeds of similar or larger size; and

(5) at least 400 vegetable seeds.

Statutory Authority: *MS s 21.85 subd 11*

History: *9 SR 693*

1510.0270 [Repealed, 9 SR 693]

1510.0271 PROHIBITED WEED SEEDS.

The following are weed seeds which are prohibited from being present in agricultural, vegetable, flower, tree, and shrub seeds sold in Minnesota in accordance with Minnesota Statutes, section 21.86, subdivision 1, paragraph (d):

A. bull thistle (*Cirsium vulgare L.*);

B. Canada thistle (*Cirsium arvense Scop.*);

C. musk thistle (*Carduus nutans L.*);

D. perennial sow thistle (*Sonchus arvensis L.*);

E. plumeless thistle (*Carduus acanthoides L.*);

F. field bindweed (*Convolvulus arvensis L.*);

G. hemp (*Cannabis sativa L.*);

H. leafy spurge (*Euphorbia esula L.*);

I. perennial peppergrass (*Lepidium draba L.*); and

J. Russian knapweed (*Centaurea repens L.*).

Statutory Authority: *MS s 21.85 subd 11*

History: *9 SR 693*

1510.0280 [Repealed, 9 SR 693]

1510.0281 Subpart 1. [Repealed, L 2003 c 128 art 7 s 1]

Subp. 2. [Repealed, L 2003 c 128 art 7 s 1]

Subp. 3. [Repealed, L 2003 c 128 art 7 s 1]

Subp. 4. [Repealed, L 2003 c 128 art 7 s 1]

Subp. 5. [Repealed, 26 SR 77; L 2003 c 128 art 7 s 1]

1510.0290 [Repealed, 9 SR 693]

1510.0300 [Repealed, 9 SR 693]

1510.0310 RETESTING AND RELABELING SEEDS.

No seed label shall contain any purity, germination, or identification data which is not obtained by testing a sample of seed drawn from the specific containers, sacks, or bins of seed which are to be relabeled. Containers of seed which have been stored

under different conditions which might affect the germination or purity of the seed differently should be sampled and tested separately.

Statutory Authority: *MS s 21.85 subd 11*

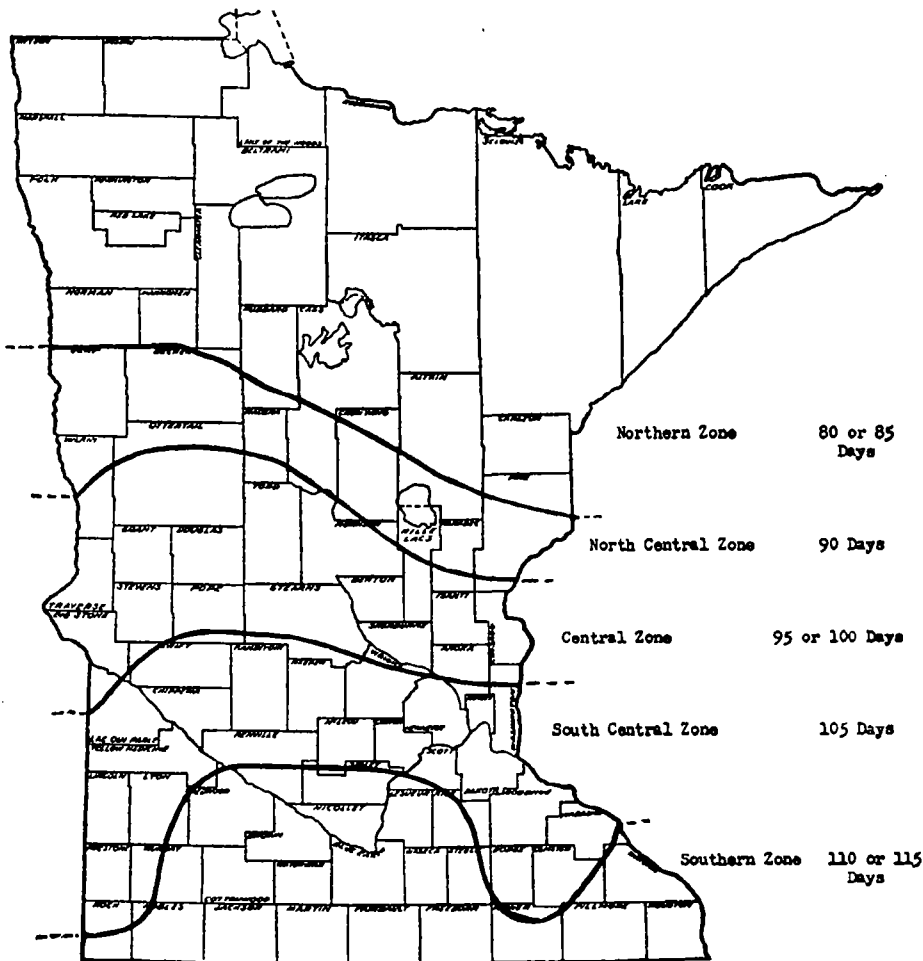
1510.0320 RESTRICTED WEED SEEDS.

“Restricted weed seeds” are those weed seeds which, if present in agricultural, vegetable, flower, tree, and shrub seed, must be named on the label together with the number per ounce or pound of seed specified and which may not exceed the legal limit. They are seeds of weeds which are objectionable in fields, lawns, and gardens of this state, and which can be controlled by good cultural practice and use of herbicides. Restricted weed seeds are seeds of buckhorn plantain (*Plantago lanceolata* L.), dodder (*Cuscuta* spp.), Frenchweed (*Thlaspi arvense* L.), hoary alyssum (*Berteroa incana* D.C.), horse nettle (*Solanum carolinense* L.), wild mustard (*Brassica arvensis* L.), quack grass (*Agropyron repens* L.), wild radish (*Raphanus raphanistrum*), giant foxtail (*Setaria faberii*), and Eastern black nightshade (*Solanum ptycanthum* Dun).

Statutory Authority: *MS s 21.85 subd 11*

History: 9 SR 693

1510.0330 CORN ZONES.



Corn zones indicate the approximate number of days growing season that may be expected from emergence of corn plants after planting to maturity, the stage of being well dented before a killing frost.

Statutory Authority: *MS s 21.85 subd 11*

1510.0340 SAMPLE LABELS FOR AGRICULTURAL SEED.

The labels shown in parts 1510.0350 and 1510.0360 are suggestive of suitable arrangement of required labeling data. Any arrangement is legal as long as data is complete and may be read and understood readily by the buyer of the seed. Misleading and confusing statements and data must be avoided.

Statutory Authority: *MS s 21.85 subd 11*

History: 9 SR 693

1510.0350 SUGGESTED LABEL FOR SINGLE AGRICULTURAL SEED.

This label may be used for hybrid corn, or a special label may be used. The hybrid corn part may be omitted if not wanted. If known, the origin of the seed must be stated for all agricultural seeds or that the origin is unknown if the origin cannot be determined.

MINNESOTA RULES 2005

733

SEEDS, FERTILIZERS, FEEDS 1510.0370

KIND _____ VARIETY _____ LOT NO _____

PURE SEED % _____ GERM % _____ HARD SEED % _____ GERM. DATE _____

WEED SEED % _____ INERT MATTER % _____ OTHER CROP % _____

NOXIOUS WEED SEEDS _____ NO. PER POUND _____
(Name)

ORIGIN _____
(State or Foreign Country)

FOR HYBRID MINNESOTA RELATIVE MATURITY _____ DAYS

CORN:

LABELER'S NAME AND ADDRESS _____

Statutory Authority: *MS s 21.85 subd 11*

History: *9 SR 693*

1510.0360 SUGGESTED LABEL FOR MIXTURES AND BLENDS OF AGRICULTURAL SEED.

KIND _____ VARIETY _____ LOT NO _____
PURE SEED % _____
GERMINATION % _____
HARD SEED % _____
ORIGIN _____

WEED SEED % _____ INERT MATTER % _____ OTHER CROP % _____

NOXIOUS WEED SEEDS _____ NO. PER POUND _____ GERM. DATE _____
(Name)

LABELER'S NAME AND ADDRESS _____

Statutory Authority: *MS s 21.85 subd 11*

History: *9 SR 693*

LIQUID COMMERCIAL FERTILIZERS

1510.0370 AUTHORITY AND PURPOSE.

Parts 1510.0370 to 1510.0380 are adopted by the commissioner pursuant to Minnesota Statutes, section 18C.121, to govern the storage and handling of liquid commercial fertilizer used for agricultural purposes.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

1510.0371 DEFINITIONS.

Subpart 1. **Scope.** For the purposes of parts 1510.0370 to 1510.0380, the terms defined in this part have the meanings given them, and “fertilizer,” “commissioner,” “grade,” and “person” have the meanings given in Minnesota Statutes, section 18C.005.

Subp. 2. **Appurtenances.** “Appurtenances” means valves, pumps, fittings, and metering or dispensing devices.

Subp. 3. **Department.** “Department” means the Department of Agriculture.

Subp. 4. **Facility.** “Facility” means a place where liquid commercial fertilizer is stored, mixed, blended, weighed, or handled.

Subp. 5. **Incident.** “Incident” means a flood, fire, tornado, transportation accident, storage container rupture or leak, or other release of liquid commercial fertilizer, whether accidental or not, which is likely to cause a hazard to people’s lives, adjoining property, or the environment.

Subp. 6. **Incident notification sign.** “Incident notification sign” means a sign issued by the department displaying the emergency telephone numbers to be called in case of an incident.

Subp. 7. **Liquid commercial fertilizer.** “Liquid commercial fertilizer” means either mixed fertilizer or fertilizer materials distributed in a fluid, nonpackaged form.

Subp. 8. **Responsible party.** “Responsible party” means the person who has direct custody or control of liquid commercial fertilizer at the time of an incident.

Subp. 9. **Safeguard.** “Safeguard” means a device, structure, or system or a combination of these designed to prevent the escape or movement of a liquid commercial fertilizer from the place it is stored which might result in the pollution of any surface or ground waters.

Subp. 10. **Storage container.** “Storage container” means a tank in which liquid commercial fertilizer is stored. This does not include delivery equipment unless the delivery equipment is used for storage.

Subp. 11. **Substantially altering.** “Substantially altering” means modifying a facility by adding additional safeguards or storage containers, or changing existing storage containers, safeguards, appurtenances, or piping. This does not include routine maintenance of existing safeguards, storage containers, appurtenances, and piping or of existing mixing, blending, weighing, and handling equipment.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

1510.0372 APPROVAL OF FACILITY AND EQUIPMENT.

Subpart 1. **Commissioner approval.** A person beginning construction of a new facility or substantially altering an existing facility shall first obtain the approval of the commissioner.

Subp. 2. **Application.** The application for approval must be made on forms provided by the commissioner and must contain the following information:

A. the name, address, and phone number of the firm making application;

B. the name, address, and phone number of the firm that will operate the facility;

C. the name, address, and phone number of the firm that will construct, install, or modify the site;

D. a statement as to whether the facility is new or existing and whether the alterations will be substantial;

E. the location of the site, including its legal description;

F. copies of any permits required for the construction, installation, or modification of the facility;

G. the size of the lot owned or leased;

MINNESOTA RULES 2005

735

SEEDS, FERTILIZERS, FEEDS 1510.0374

H. a statement of the approximate distance to nearby lakes, streams, or drainage ditches, or a storm drain into which liquid could flow;

I. a statement of the general soil type found at the site and the type, depth, and proximity of wells on or near the site;

J. the nature of the terrain at the site;

K. the number and capacity of storage containers;

L. a description of the type of storage containers;

M. a description of the type of safeguards, including drawings or pictures, if available;

N. at least three scale drawings of the facility, including other storage containers and buildings;

O. a plumbing diagram showing the location and type of pumps and valves used to control all transfers of liquid commercial fertilizer;

P. a description of the contingency plan filed with local fire and law enforcement personnel for emergency situations; and

Q. any other information required by the commissioner reasonably related to the construction, installation, or modification of a liquid commercial fertilizer facility in order to prevent hazards to people's lives, adjoining property, and the environment.

Subp. 3. **Criteria.** The commissioner shall approve the application when inspection of the facility and review of the application demonstrate that the proposed facility satisfies the requirements of parts 1510.0370 to 1510.0380 and provides safeguards to prevent hazards to people's lives, adjoining property, and the environment.

Subp. 4. **Review of approval.** The commissioner shall review approved facilities if the commissioner has reason to believe that existing safeguards are not sufficient to prevent hazards to people's lives, adjoining property, or the environment. Upon determination by the commissioner that hazards to people's lives, adjoining property, or the environment do exist, the commissioner shall proceed in accordance with Minnesota Statutes, chapter 18D.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

1510.0373 PREVIOUSLY ESTABLISHED FACILITIES.

The person who operates a facility which was established prior to July 11, 1983, including persons who were granted a permit by the Pollution Control Agency, must obtain the commissioner's approval of the facility and equipment according to the following schedule:

A. The person who operates a facility established prior to January 1, 1965, must seek the approval of the commissioner by July 11, 1984.

B. The person who operates a facility established from January 1, 1965, to December 31, 1973, must seek the approval of the commissioner by July 11, 1985.

C. The person who operates a facility established from January 1, 1974, to May 31, 1975, must seek the approval of the commissioner by July 11, 1986.

D. The person who operates a facility established from June 1, 1975, to December 31, 1977, must seek the approval of the commissioner by July 11, 1987.

E. The person who operates a facility established from January 1, 1978, to December 31, 1979, must seek the approval of the commissioner by July 11, 1988.

F. The person who operates a facility established from January 1, 1980, to July 11, 1983, must seek the approval of the commissioner by July 11, 1989.

Statutory Authority: *MS s 17.725*

1510.0374 VARIANCES.

Upon receipt of a written request, the department shall grant a variance from this rule when the request shows that compliance with this rule would cause unreasonable

1510.0374 SEEDS, FERTILIZERS, FEEDS

736

economic hardship to the requester and that the requested use would not constitute a hazard to people's lives, adjoining property, or the environment. The department shall set forth in writing its reasons for granting or denying a requested variance within 60 days of the request.

Statutory Authority: *MS s 17.725*

1510.0375 MAINTENANCE AND OPERATIONS.

Safeguards, storage containers, and mixing, blending, weighing, and handling equipment must be maintained and operated in a manner which will prevent the escape of any liquid commercial fertilizer from the facility.

Adequate provisions must be made to protect all above-ground piping from physical damage that might result from moving machinery, equipment, and vehicles.

Main valves must be located as near to the storage container as possible and must be either closed and made inoperative when the facility is unattended or protected against tampering by adequate fencing.

Appurtenances and storage containers must be properly maintained, protected against rust, and painted to prevent corrosion and leakage.

Storage container areas must be kept free of clutter and ignitable materials including weeds and long dry grass.

Statutory Authority: *MS s 17.725*

1510.0376 SAFEGUARDS.

Persons storing liquid commercial fertilizers in storage containers shall provide safeguards for containment at least equal to the holding capacity of the largest single storage container.

Statutory Authority: *MS s 17.725*

1510.0377 MARKINGS.

Each storage container must be labeled in a clearly legible and conspicuous manner with the appropriate grade or guaranteed analysis of the contents of the storage container.

An identification sign must be displayed in a clearly legible and conspicuous manner stating the name, address, and telephone number of the nearest agent, representative, owner, or person who operates the facility.

An incident notification sign must be posted in a conspicuous place within the facility.

Statutory Authority: *MS s 17.725*

1510.0378 INCIDENTS.

A person involved in or responsible for an incident shall report the incident to the department. The department shall immediately notify other state agencies with jurisdiction regarding the incident. The responsible party shall take appropriate action to contain or clean up the results of the incident. The department shall be the lead state agency for making decisions involving the cleanup or containment operations and shall initiate those operations necessary to prevent hazards to people's lives, adjoining property, or the environment. By initiating cleanup or containment operations, the department does not assume any liability for costs in addition to that prescribed or imposed by law.

Statutory Authority: *MS s 17.725*

1510.0379 EXEMPT FACILITIES.

Parts 1510.0370 to 1510.0380 do not apply to anhydrous ammonia facilities, or to portable or nonstationary tanks.

Statutory Authority: *MS s 17.725*

1510.0380 ENFORCEMENT.

The commissioner shall proceed in accordance with Minnesota Statutes, chapter 18D, upon satisfactory evidence that the storage or handling of liquid commercial fertilizer does not meet the provisions in parts 1510.0370 to 1510.0380.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

DRY COMMERCIAL FERTILIZERS**1510.0400 AUTHORITY AND PURPOSE.**

Parts 1510.0400 to 1510.0408 are adopted by the commissioner pursuant to Minnesota Statutes, section 18C.121, to govern the storage and handling of dry commercial fertilizer used for agricultural purposes.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

1510.0401 DEFINITIONS.

Subpart 1. **Scope.** For the purposes of parts 1510.0401 to 1510.0408, the terms defined in this part have the meanings given them, and “fertilizer,” “commissioner,” “grade,” and “person” have the meanings given in Minnesota Statutes, section 18C.005.

Subp. 2. **Department.** “Department” means the Department of Agriculture.

Subp. 3. **Dry commercial fertilizer.** “Dry commercial fertilizer” means either mixed fertilizer or fertilizer materials distributed in a nonfluid, nonpackaged form.

Subp. 4. **Facility.** “Facility” means a place where dry commercial fertilizer is stored, mixed, blended, weighed, or handled.

Subp. 5. **Incident.** “Incident” means a flood, fire, tornado, transportation accident, or other event causing a release of dry commercial fertilizer, whether accidental or not, which is likely to cause a hazard to people’s lives, adjoining property, or the environment.

Subp. 6. **Incident notification sign.** “Incident notification sign” means a sign issued by the department displaying emergency telephone numbers to be called in the case of an incident.

Subp. 7. **Responsible party.** “Responsible party” means the person who has direct custody or control of the dry commercial fertilizer at the time of an incident.

Subp. 8. **Safeguard.** “Safeguard” means a device, structure, or system or a combination of these designed to prevent the escape or movement of a dry commercial fertilizer from the place it is stored which might result in the pollution of any surface or ground waters.

Subp. 9. **Storage container.** “Storage container” means a tank or bin in which dry commercial fertilizer is stored. This does not include delivery equipment unless the delivery equipment is used for storage.

Subp. 10. **Substantially altering.** “Substantially altering” means modifying a facility by adding additional safeguards or storage containers, or by changing existing safeguards or storage containers. This does not include routine maintenance of existing safeguards or storage containers or of existing mixing, blending, weighing, and handling equipment.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

1510.0402 APPROVAL OF FACILITY AND EQUIPMENT.

Subpart 1. **Commissioner approval.** A person beginning construction of a new facility or substantially altering an existing facility shall first obtain the approval of the commissioner.

Subp. 2. **Forms.** The application for approval must be made on forms provided by the commissioner and must contain the following information:

- A. the name, address, and phone number of the firm making the application;
- B. the name, address, and phone number of the firm that will operate the facility;
- C. the name, address, and phone number of the firm that will construct, install, or modify the site;
- D. a statement as to whether the facility is new or existing and whether the alterations will be substantial;
- E. the location of the site, including its legal description;
- F. copies of any permits required for the construction, installation, or modification of the facility;
- G. the size of the lot owned or leased;
- H. the number and capacity of storage containers;
- I. a description of the type of storage containers;
- J. a description of the type of safeguards, if any;
- K. at least three scale drawings of the facility, including other storage containers and buildings;
- L. a description of the contingency plan filed with local fire and law enforcement personnel for emergency situations; and
- M. any other information required by the commissioner reasonably related to the construction, installation, or modification of a dry commercial fertilizer facility in order to prevent hazards to people's lives, adjoining property, and the environment.

Subp. 3. **Criteria.** The commissioner shall approve the application when inspection of the facility and review of the application demonstrate that the proposed facility satisfies the requirements of parts 1510.0400 to 1510.0408 and provides safeguards to prevent hazards to people's lives, adjoining property, and the environment.

Subp. 4. **Review of approved facilities.** The commissioner shall review approved facilities if the commissioner has reason to believe that existing safeguards are not sufficient to prevent hazards to people's lives, adjoining property, or the environment. Upon determination by the commissioner that hazards to people's lives, adjoining property, or the environment do exist, the commissioner shall proceed in accordance with Minnesota Statutes, chapter 18D.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

1510.0403 VARIANCES.

Upon receipt of a written request, the department shall grant a variance from these parts when the request shows that compliance with this rule would cause unreasonable economic hardship to the requester and that the requested use would not constitute a hazard to people's lives, adjoining property, or the environment. The department shall set forth in writing its reasons for granting or denying a requested variance within 60 days of the request.

Statutory Authority: *MS s 17.725*

1510.0404 MAINTENANCE AND OPERATIONS.

Safeguards, storage containers, and mixing, blending, weighing, and handling equipment must be maintained and operated in a manner which will prevent avoidable amounts of particulate matter from leaving the facility. This requirement does not apply to facilities governed by this rule which were established prior to the date of its adoption unless the existing facility, without modification, would result in a hazard to people's lives, adjoining property, or the environment.

Storage containers must be maintained to prevent cross contamination of various dry commercial fertilizers.

Storage container areas must be kept free of clutter and ignitable materials including weeds and long dry grass.

Statutory Authority: *MS s 17.725*

1510.0405 MARKINGS.

Each storage container must be labeled in a clearly legible and conspicuous manner with the appropriate grade or guaranteed analysis of the contents of the storage container.

An incident notification sign must be posted in a conspicuous place within the facility.

Statutory Authority: *MS s 17.725*

1510.0406 OUTSIDE STORAGE.

Outside dry commercial fertilizer storage piles may not be located in areas where surface water runoff could enter storm sewers, sanitary sewers, or other surface or ground waters.

Statutory Authority: *MS s 17.725*

1510.0407 INCIDENTS.

A person involved in or responsible for an incident shall report the incident to the department. The department shall immediately notify other state agencies with jurisdiction regarding the incident. The responsible party shall take appropriate action to contain or clean up the results of the incident. The department shall be the lead state agency for making decisions involving cleanup or containment operations and shall initiate those operations necessary to prevent hazards to people's lives, adjoining property, or the environment. By initiating cleanup or containment operations, the department does not assume any liability for costs in addition to that prescribed or imposed by law.

Statutory Authority: *MS s 17.725*

1510.0408 ENFORCEMENT.

The commissioner shall proceed in accordance with Minnesota Statutes, chapter 18D, upon satisfactory evidence that the storage or handling of dry commercial fertilizer does not meet the provisions in parts 1510.0401 to 1510.0408.

Statutory Authority: *MS s 17.725; 18C.121*

History: *29 SR 655*

FERTILIZER LABELS

1510.0410 AUTHORITY AND PURPOSE.

Parts 1510.0410 to 1510.0422 are adopted by the commissioner pursuant to Minnesota Statutes, section 18C.121, to prescribe conditions for labels and procedures for labeling fertilizers.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0411 DEFINITIONS.

Subpart 1. **Scope.** For the purposes of parts 1510.0410 to 1510.0422, the terms defined in this part have the meanings given them, and "brand," "commissioner," "compost," "fertilizer," "grade," "guarantor," "label," "labeling," "organic," "plant food," "sewage sludge," and "specialty fertilizer," have the meanings given in Minnesota Statutes, section 18C.005.

Subp. 1a. **Animal manure.** "Animal manure" means the excreta of animals together with whatever bedding materials are needed to follow good dairy barn, feedlot, and poultry house practices to maintain proper sanitary conditions.

Subp. 1b. **Continuous liquid feed.** "Continuous liquid feed" means the external application of water soluble nutrients in the irrigation water every time the plant requires water.

Subp. 2. **Department.** "Department" means the Department of Agriculture.

Subp. 3. **Filler.** "Filler" means a substance added to fertilizer to provide bulk, prevent caking, or serve some purpose other than providing essential plant nutrients.

Subp. 4. **Hydroponic.** "Hydroponic" means a system in which water soluble nutrients are placed in intimate contact with the plant's root system, being grown in an inert supportive medium which supplies physical support for the roots but which does not add or subtract plant nutrients.

Subp. 5. **Nitrogen stabilizer.** "Nitrogen stabilizer" means a substance added to a fertilizer that extends the time the nitrogen component of the fertilizer remains in the soil in the ammoniacal form.

Subp. 6. **Organic fertilizer.** "Organic fertilizer" means a material containing carbon and one or more elements other than hydrogen and oxygen essential for plant growth.

Subp. 7. **Peat.** "Peat" means the partly decayed vegetable matter of natural occurrence. It is composed chiefly of organic matter that may contain some nitrogen of low activity.

Subp. 8. **Physical manipulation.** "Physical manipulation" means fertilizers that are manufactured, blended, or mixed, or animal manures or compost that have been changed from their initial physical state by manipulations such as drying, cooking, chopping, grinding, shredding, ashing, or pelleting.

Subp. 9. **Plant nutrient.** "Plant nutrient" has the meaning given to "plant food" in Minnesota Statutes, section 18C.005, subdivision 26.

Subp. 10. **Potting soil.** "Potting soil" means a material suitable for holding and growing potted plants and made primarily from natural materials. It may include fertilizers, pesticides, and soil or plant amendments.

Subp. 11. **Primary plant nutrients.** "Primary plant nutrients" includes total nitrogen (N), available phosphate (P_2O_5), and soluble potash (K_2O).

Subp. 12. **Secondary and micro plant nutrients.** "Secondary and micro plant nutrients" includes those other than the primary nutrients that are essential for the normal growth of plants and that may need to be added to the growth medium. "Secondary plant nutrients" include calcium, magnesium, and sulfur. "Micro plant nutrients" include boron, chlorine, cobalt, copper, iron, manganese, molybdenum, sodium, and zinc.

Subp. 13. **Synthetic.** "Synthetic" means any substance generated from another material or materials by means of a chemical reaction.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0412 LABEL INFORMATION REQUIREMENTS.

Subpart 1. **Information and format.** Specialty fertilizers offered for sale, sold, or distributed in this state, in bags or other containers, must have placed on or affixed to the container the following information in the following format except as provided in part 1510.0413:

A. net weight;

B. brand and grade, provided that:

(1) the grade is not required if no primary nutrients are claimed;

MINNESOTA RULES 2005

741

SEEDS, FERTILIZERS, FEEDS 1510.0412

(2) the grade on the label is optional if the fertilizer is used only for agricultural purposes and the guaranteed analysis statement is shown in the complete form as in Minnesota Statutes, section 18C.211 or 18C.215, subdivision 2, paragraph (a);

(3) no numerals that misrepresent the plant food or product composition of the fertilizer may be used in the brand name of a fertilizer; and

(4) if the name of a fertilizer material is used as part of its brand name, such as blood, bone, or fish, the nutrients guaranteed must be derived or supplied entirely by the material named;

C. guaranteed analysis, which is the minimum percentage of plant nutrients claimed in the following form:

| | |
|--|------------|
| Total Nitrogen (N) | _____% |
| _____% Ammoniacal Nitrogen | |
| _____% Nitrate Nitrogen | |
| _____% Water Insoluble Nitrogen | |
| _____% Urea Nitrogen | |
| _____% Other approved and determinable forms of Nitrogen | |
| Available Phosphate (P ₂ O ₅) | _____% |
| Soluble Potash (K ₂ O) | _____% |
| Secondary and Micro plant nutrients (elemental basis) | _____% |

D. a derivative statement indicating the sources of plant nutrients, listing the common or usual English name of all ingredients used in manufacturing or blending the fertilizer must be placed immediately below the guaranteed analysis statement;

E. name and address of guarantor;

F. a direction for use statement.

Subp. 2. **Secondary and micro plant nutrients permitted.** The commissioner shall accept guarantees only for the additional secondary and micro plant nutrients listed in this subpart. These additional plant nutrients in a particular fertilizer may be guaranteed if they meet the following minimum content requirements:

| Plant Nutrient | Minimum Percent Allowed |
|-----------------|-------------------------|
| Calcium (Ca) | 1.00 |
| Magnesium (Mg) | 0.50 |
| Sulfur (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 |

Subp. 3. **Procedures.** If any of the plant nutrients in subpart 2 are guaranteed, the procedures in items A to F must be followed for labels and labeling.

A. The plant nutrients must be listed immediately following nitrogen, phosphorus, and potassium.

B. The plant nutrients must appear in the format listed in subpart 2.

C. The plant nutrients must appear in the order listed in subpart 2.

D. The plant nutrients must be stated on the elemental basis.

E. The percentages of each of the plant nutrients contained in the fertilizer must be stated.

F. Water soluble nutrients labeled for hydroponic or continuous feeding programs and guarantees for potting soils are exempt from the minimum guarantee requirement.

Subp. 4. **Prohibition.** If the minimum requirement stated in subpart 2 is not met for a particular plant nutrient, labels and labeling for the fertilizer may not contain any statement regarding that particular plant nutrient.

Subp. 5. **Breakdown of plant food elements within the guaranteed analysis.** When a plant nutrient guarantee is broken down into the component forms, the percentage for each component must be shown before the name of the form. Descriptive terms may be used to identify both the total nutrient and its components. Zero guarantees are not acceptable as noted in part 1510.0413, however, they are allowed in the nutrient breakdown guarantees.

| | |
|-------------------------------------|--------|
| Total Nitrogen (N) | _____% |
| _____% Ammoniacal Nitrogen | |
| _____% Nitrate Nitrogen | |
| Magnesium (Mg) | _____% |
| _____% Water Soluble Magnesium (Mg) | |
| Sulfur (S) | _____% |
| _____% Free Sulfur (S) | |
| _____% Combined Sulfur (S) | |
| Iron (Fe) | _____% |
| _____% Chelated Iron (Fe) | |

Subp. 6. **Mentioned plant nutrients.** Plant nutrients, when mentioned in any form or manner on any label or labeling, must be listed and guaranteed.

Subp. 7. **Additional nonplant food materials.** Additional information that is not listed in subparts 1, item C; 2; and 5 may not appear in the guaranteed analysis statement, but may appear on the label if placed below and separate from the guaranteed analysis statement.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0413 EXCEPTIONS TO LABEL INFORMATION REQUIREMENTS.

Subpart 1. **Zero percentages.** If the percentage of any plant nutrient in specialty fertilizer is zero, the plant nutrient must be omitted from the guaranteed analysis statement.

Subp. 2. **Chemical forms of nitrogen.** Chemical forms of nitrogen must be listed, without limitation, when the nitrogen is organic or slowly released. Whenever the chemical forms of nitrogen are claimed, they must be claimed in the form indicated in part 1510.0412, item C, and add up to the total nitrogen guarantee.

Subp. 3. **Custom orders; bulk sales.** A distributor who blends or mixes a fertilizer to a customer's order without a guaranteed analysis of the final mixture or distributes a fertilizer in bulk must furnish each purchaser with an invoice or delivery ticket in written or printed form showing the net weight and guaranteed analysis of each fertilizer sold or used in the mixture and the name and address of the guarantor. Other information in part 1510.0412 is not required for blended, bulk, or mixed fertilizers.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0414 LOCATION OF LABEL INFORMATION.

For packaged fertilizers, the information required in part 1510.0412 must be in a readable and conspicuous form and must appear:

- A. on the front or back side of the container;
- B. on the upper one-third of the side of a container;
- C. on the upper end of the container; or
- D. printed on a tag affixed to the upper end of the container.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0415 [Repealed, 19 SR 2485]**1510.0416 CONTROLLED RELEASE PLANT NUTRIENTS.**

Subpart 1. **Prohibited statement on label.** A fertilizer label may not bear a statement that connotes or implies that certain plant nutrients contained in the fertilizer are released slowly over a period of time, unless the controlled release components are identified and guaranteed at a level of at least 15 percent of the total guarantee for that nutrient.

Subp. 2. **Permitted labels.** The following types of plant nutrients may be labeled as controlled release plant nutrients:

- A. water insoluble nitrogen products, such as natural organics, ureaform materials, urea formaldehyde products, isobutylidene diurea, and oxamide;
- B. coated controlled release plant nutrients such as sulfur coated urea and other encapsulated soluble fertilizers;
- C. occluded controlled release plant nutrients, such as fertilizers mixed with waxes, resins or other inert materials and formed into particles; and
- D. products containing water soluble nitrogen such as ureaform materials, urea formaldehyde products, methylenediurea (MDU), dimethylenetriurea (DMTU), and dicyanodiamide (DCD).

Subp. 3. **Descriptive terms.** "Controlled release" is the preferred term, however the terms "water insoluble," "coated slow release," "slow release," "controlled release," "slowly available water soluble," and "occluded slow release" are accepted as descriptive of these products, provided that the manufacturer can show a testing program approved by the department substantiating the claim.

Subp. 4. [Repealed, 19 SR 2485]

Subp. 5. [Repealed, 19 SR 2485]

Subp. 6. **Methods.** Until more appropriate methods are developed, Association of Official Analytical Chemists (AOAC) International method number 970.04 (15th Edition), or the appropriate AOAC International method in a subsequent edition, must be used to confirm the coated controlled release and occluded controlled release plant nutrients and others whose slow release characteristics depend on particle size. AOAC International method number 945.01 (15th Edition), or the appropriate AOAC International method in a subsequent edition, must be used to determine the water insoluble nitrogen of organic materials.

Subp. 7. [Repealed, 19 SR 2485]

Subp. 8. [Repealed, 19 SR 2485]

Subp. 9. **Acceptable guaranteed analysis breakdown for coated controlled release or occluded controlled release nutrients.** When nutrients in a fertilizer are coated, or occluded to obtain controlled release properties, then the guarantees for those components must be shown as footnotes rather than as a component following each nutrient as indicated in items A to C.

MINNESOTA RULES 2005

A. A fertilizer with one coated material.

Fertkote 10-15-20
Guaranteed Analysis

| | |
|--|-----|
| Total Nitrogen (N) | 10% |
| 2.5% Ammoniacal Nitrogen | |
| 2.5% Nitrate Nitrogen | |
| 5.0% Urea Nitrogen* | |
| Available Phosphate (P ₂ O ₅) | 15% |
| Soluble Potash (K ₂ O) | 20% |
| Sulfur (S) | 14% |
| Plant nutrients derived from: _____ | |
| * ____% Controlled release urea nitrogen from _____ | |

B. A fertilizer with all materials of one nutrient coated.

Fertkote 10-15-20
Guaranteed Analysis

| | |
|--|-----|
| Total Nitrogen (N)* | 10% |
| 2.5% Ammoniacal Nitrogen | |
| 2.5% Nitrate Nitrogen | |
| 5.0% Urea Nitrogen | |
| Available Phosphate (P ₂ O ₅) | 15% |
| Soluble Potash (K ₂ O) | 20% |
| Sulfur (S) | 14% |
| Plant nutrients derived from: _____ | |
| * ____% Controlled release nitrogen from _____ | |

C. A fertilizer with two or more nutrients from coated materials.

Fertkote 10-15-20
Guaranteed Analysis

| | |
|---|-----|
| Total Nitrogen (N)* | 10% |
| 2.5% Ammoniacal Nitrogen | |
| 2.5% Nitrate Nitrogen | |
| 5.0% Urea Nitrogen | |
| Available Phosphate (P ₂ O ₅)* | 15% |
| Soluble Potash (K ₂ O)* | 20% |
| Sulfur (S) | 14% |
| Plant nutrients derived from: _____ | |

* The nitrogen, phosphate, and potash materials in this product have been coated to provide 9.0 percent coated controlled release nitrogen (N), 13 percent coated controlled release available phosphate (P₂O₅), and 18 percent coated controlled release soluble potash (K₂O).

Subp. 10. **Acceptable guaranteed analysis breakdown for slowly available water soluble nitrogen.** If a fertilizer material or fertilizer mixture contains recognized and determinable forms of water soluble nitrogen with controlled release properties, the guarantees for those components, if claimed, must be shown as footnotes rather than as a component in the nitrogen breakdown, as indicated in items A and B.

MINNESOTA RULES 2005

745

SEEDS, FERTILIZERS, FEEDS 1510.0419

A.

Slow Fertilizer 20-0-0
Guaranteed Analysis

Total Nitrogen (N) 20%

8.0% Urea Nitrogen
2.0% Other Water Soluble Nitrogen
2.9% Slowly Available Water Soluble Nitrogen*
7.1% Water Insoluble Nitrogen

Plant nutrients derived from: _____

* Controlled release nitrogen from _____

OR

B.

Slow Fertilizer 20-0-0
Guaranteed Analysis

Total Nitrogen (N) 20%

8.0% Urea Nitrogen
4.9% Other Water Soluble Nitrogen*
7.1% Water Insoluble Nitrogen

Plant nutrients derived from: _____

* ___% Controlled release nitrogen from _____

Note: If other recognized forms of water soluble nitrogens are listed in the nitrogen breakdown, the term "other" must precede the "water soluble nitrogen*" footnoted breakdown. The word "organic" may be used in the nitrogen breakdown where appropriate.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0417 FISH EMULSIONS.

The following is an example of an acceptable breakdown of nitrogen for a fish emulsion fertilizer:

Total Nitrogen (N) 5%

0.0% Nitrate Nitrogen
0.0% Urea Nitrogen
0.5% Ammoniacal Nitrogen
0.5% Water Insoluble Nitrogen
4.0% Other Water Soluble Nitrogen

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

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0418 [Repealed, 19 SR 2485]

1510.0419 LABELING AND LABELS.

Subpart 1. **Labeling and labels.** Proposed labeling and labels with directions for use of the fertilizer must be furnished with the application for registration of a fertilizer.

Subp. 2. **Foliar fertilizers.** Any product labeled or advertised for foliar fertilization must be prominently labeled either with directions for use showing only the rates and conditions for use that have been scientifically documented as benefiting crops or other intended plants, or with the following statement: "Foliar fertilization is intended as a supplement to a regular fertilization program and may not, by itself, provide all the nutrients normally required by crops or other intended plants."

Subp. 3. **Animal manures.** If ingredients are added to animal manure, the ingredients must be specified on the principal label of the container. If the added ingredient exceeds the amount of manure, it must be the first ingredient listed on the principal label and the words, "manure," "cattle manure," "sheep manure," and similar terms must be in type noticeably smaller than that used for the added ingredient. If the packaging of a product features the picture of a designated animal, manure of that species of animal must comprise more than 50 percent of the material in the container.

Subp. 4. **Labeling standards.** The descriptive terms listed in items A to G may be used on a fertilizer label or labeling only if the fertilizer conforms to the following standards.

A. "Natural base fertilizer" is a mixed fertilizer in which more than one-half of the fertilizer material is natural and more than one-half of the sum of the guaranteed primary nutrient percentages is derived from natural fertilizers.

B. "Natural fertilizer" is a substance composed only of natural organic or natural inorganic fertilizers and natural fillers.

C. "Natural inorganic fertilizer" is a mineral fertilizer source that exists in or is produced by nature and may be altered from its original state only by physical manipulation.

D. "Natural organic fertilizer" is composed of fertilizer materials derived from either plant or animal products containing one or more elements, other than carbon, hydrogen, and oxygen that are essential for plant growth. These materials may be subjected to biological degradation processes under normal conditions of aging, rainfall, sun curing, air drying, composting, rotting, enzymatic or anaerobic/aerobic bacterial action, or combination of these. These materials may not be mixed with synthetic materials or changed in any physical or chemical manner from their initial state except by manipulations such as drying, cooking, chopping, grinding, shredding, hydrolysis, or pelleting.

E. "Organic base fertilizer" is a mixed fertilizer in which more than one-half of the fertilizer material is organic and more than one-half of the sum of the guaranteed primary nutrient percentages is derived from organic fertilizers.

F. "Sphagnum peat moss" is a peat source from a sphagnum moss peat deposit (bog) of which an oven-dried sample would contain a minimum of 66-2/3 percent sphagnum moss fiber by weight. The fibers must be stems and leaves of sphagnum that have recognizable fibrous and cellular structure.

G. "Stabilized nitrogen fertilizer" is a fertilizer to which a nitrogen stabilizer has been added.

Subp. 5. **Environmentally beneficial.** A claim that a product is "environmentally beneficial" or a similar claim must be accompanied by a statement of explanation of the rationale for the claim and a list of all ingredients in order to allow the consumer to determine the validity of the statement.

Subp. 6. **Safety.** Statements suggesting that a product is completely safe and nontoxic to humans, animals, or the environment are considered misbranding and must not appear on the label.

Subp. 7. **Potting soils.** If plant nutrients are mentioned in any form or manner on any label or labeling, they must be listed and guaranteed and the potting soil must be registered as a specialty fertilizer.

Subp. 8. **Organic nitrogen.** Only nitrogen derived from natural organic or synthetic organic fertilizers with slow release properties may be designated as organic.

MINNESOTA RULES 2005

747

SEEDS, FERTILIZERS, FEEDS 1510.0420

A. If an amount of nitrogen is designated as organic, the water insoluble nitrogen or controlled release nitrogen guarantee or any combination of the two must not be less than 60 percent of the nitrogen so designated.

B. If a fertilizer product is designated as organic and no amount of nitrogen is specifically designated as organic, all of the nitrogen guaranteed must be derived from organic fertilizer materials and the water insoluble nitrogen or controlled release nitrogen guarantee or any combination of the two must not be less than 60 percent of the total nitrogen guarantee.

C. Coated urea may not be included in meeting the 60 percent controlled release nitrogen requirements.

D. If a fertilizer contains organic nitrogen derived from synthetic organic fertilizer materials and the term "organic" is used on the label or labeling, the label must bear a statement that the product contains synthetic organic nitrogen, followed by a list of the synthetic ingredients. For example: "This fertilizer contains synthetic organic nitrogen derived from" The statement must be printed following the derivative statement and be in type no smaller than that of the type of the derivative statement.

For example:

(1) Green Season Organic Fertilizer 10-1-1

| | |
|---|-----|
| Total Nitrogen (N) | 10% |
| 3.6% Water Soluble Nitrogen | |
| 6.4% Water Insoluble Nitrogen | |
| Available Phosphate (P ₂ O ₅) | 1% |
| Soluble Potash (K ₂ O) | 1% |
| Derived from: manure, blood meal, ureaform, and bone meal | |

This fertilizer contains synthetic organic nitrogen derived from ureaform.

(2) Organic Based Plant Food 15-2-4

| | |
|---|-----|
| Total Nitrogen (N) | 15% |
| 1.5% Urea Nitrogen | |
| 1.0% Other Water Soluble Nitrogen | |
| 6.5% Slowly Available Water Soluble Nitrogen* | |
| 6.0% Water Insoluble Nitrogen | |
| Available Phosphate (P ₂ O ₅) | 2% |
| Soluble Potash (K ₂ O) | 4% |
| Derived from: manure, bone meal, methylene urea, and potassium chloride | |
| * ___ Controlled release nitrogen from methylene urea | |

This fertilizer contains synthetic organic nitrogen derived from methylene urea.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0420 MR 1993 [Renumbered 1510.0421]

1510.0420 INVESTIGATIONAL ALLOWANCES.

Subpart 1. **Primary plant nutrients.** A commercial fertilizer is deficient if the analysis of any plant 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 97 percent.

MINNESOTA RULES 2005

| Guaranteed percent | Nitrogen percent | Available Phosphate percent | Potash percent |
|-----------------------|---------------------|--------------------------------|-------------------|
| 04 | 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 |

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

The overall index value is calculated by comparing the commercial value guaranteed with the commercial value found. For example, when using a 2:2:1 ratio, assuming that the nitrogen and phosphorus are valued at twice the amount of potash:

| | | | | |
|--|---|---|---|----------|
| 10.0 units N | x | 2 | = | 20.0 |
| 10.0 units P ₂ O ₅ | x | 2 | = | 20.0 |
| 10.0 units K ₂ O | x | 1 | = | 10.0 |
| Commercial Value Guaranteed | | | | = 50.0 |
| | | | | |
| 10.1 units N | x | 2 | = | 20.2 |
| 10.2 units P ₂ O ₅ | x | 2 | = | 20.4 |
| 10.1 units K ₂ O | x | 1 | = | 10.1 |
| Commercial Value Found | | | | = 50.7 |
| Overall Index Value = 100(50.7/50.0) | | | | = 101.4% |

Subp. 2. **Secondary and micro plant nutrients.** Secondary and micro plant nutrients are deficient if any plant nutrient is below the guarantee by an amount exceeding the values in the following schedule:

| Plant Nutrient | Allowable Deficiency |
|-----------------|--------------------------------|
| Calcium (Ca) | 0.2 unit + 5% of guarantee |
| Magnesium (Mg) | 0.2 unit + 5% of guarantee |
| Sulfur (S) | 0.2 unit + 5% of guarantee |
| Boron (B) | 0.003 unit + 15% of guarantee |
| Cobalt (Co) | 0.0001 unit + 30% of guarantee |
| Molybdenum (Mo) | 0.0001 unit + 30% of guarantee |
| Chlorine (Cl) | 0.005 unit + 10% of guarantee |
| Copper (Cu) | 0.005 unit + 10% of guarantee |
| Iron (Fe) | 0.005 unit + 10% of guarantee |

MINNESOTA RULES 2005

749

SEEDS, FERTILIZERS, FEEDS 1510.0431

| | |
|----------------|-------------------------------|
| Manganese (Mn) | 0.005 unit + 10% of guarantee |
| Sodium (Na) | 0.005 unit + 10% of guarantee |
| Zinc (Zn) | 0.005 unit + 10% of guarantee |

The maximum allowance when calculated under this subpart is one unit (one percent).

Subp. 3. **Analytical procedures.** Sampling equipment, procedures, preparation, and analysis must be those adopted by the Association of Official Analytical Chemists. In cases not covered by those methods, or in cases where methods are available in which improved applicability has been demonstrated, the commissioner may adopt appropriate methods from other sources.

Statutory Authority: *MS s 18C.121*

History: *19 SR 2485*

1510.0421 MR 1993 [Renumbered 1510.0422]

1510.0421 WARNING STATEMENTS.

Warning or caution statements are required 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.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

1510.0422 ENFORCEMENT.

The commissioner shall proceed in accordance with Minnesota Statutes, section 18D.305, upon satisfactory evidence that a label or labeling of a fertilizer does not meet the provisions in parts 1510.0410 to 1510.0422.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2485*

SOIL AND PLANT AMENDMENT LABELS

1510.0430 AUTHORITY AND PURPOSE.

Parts 1510.0430 to 1510.0434 are adopted by the commissioner pursuant to Minnesota Statutes, section 18C.121, to prescribe conditions for the labels and procedures for labeling soil and plant amendments.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2269*

1510.0431 DEFINITIONS.

Subpart 1. **Scope.** The definitions in this part apply to parts 1510.0430 to 1510.0434. For the purposes of parts 1510.0430 to 1510.0434, the terms "brand," "commissioner," "compost," "fertilizer," "guarantor," "label," "labeling," "plant amendment," "plant food," "sewage sludge," and "soil amendment" have the meanings given them in Minnesota Statutes, section 18C.005.

Subp. 2. **Animal manure.** "Animal manure" means the excreta of animals together with whatever bedding materials are needed to follow good dairy barn, feedlot, and poultry house practices to maintain proper sanitary conditions.

Subp. 3. **Inert ingredients.** "Inert ingredients" means the ingredients present in soil or plant amendments that are not soil or plant amending ingredients.

Subp. 4. **Peat.** "Peat" means partly decayed vegetable matter of natural occurrence. It is composed chiefly of organic matter that may contain some nitrogen of low activity.

Subp. 5. **Sphagnum peat moss.** "Sphagnum peat moss" means a peat source from a sphagnum moss peat deposit (bog) of which an oven-dried sample would contain a minimum of 66-2/3 percent sphagnum moss fiber by weight. These fibers are stems and leaves of sphagnum that have recognizable fibrous and cellular structure.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2269*

1510.0432 LABEL REQUIREMENTS.

Subpart 1. **Information required.** A soil or plant amendment offered for sale or sold in this state in bags or other containers must have placed on or affixed to the container the following information:

- A. net weight;
- B. brand name;
- C. guaranteed analysis, which must be in the following format:

GUARANTEED ANALYSIS

SOIL OR PLANT AMENDMENT INGREDIENTS

"Name of Ingredient" ... %

(identify and list all)

INERT INGREDIENTS

"Name of Ingredient" ... %

(identify and list all)

(1) List the common or usual English name and percentage by weight of each active ingredient, under the heading "SOIL OR PLANT AMENDMENT INGREDIENTS."

(2) List the common or usual English name and percentage by weight of each inert ingredient, listed under the heading "INERT INGREDIENTS." The "INERT INGREDIENTS" statement may be deleted from the guaranteed analysis statement if the percentage of inert ingredients is zero.

(3) If the product is a microbiological product, a statement of active ingredients in the following format must state the number of viable microorganisms per milliliter for a liquid or the number of viable microorganisms per gram for a dry product:

ACTIVE INGREDIENTS

(Minimum number) viable (name of organism) per gram or per milliliter.

(List each organism separately);

- D. name and address of guarantor;
- E. directions for the soil or plant amendment's use; and
- F. the soil or plant amendment's purpose or proposed use.

Subp. 2. [Repealed, 19 SR 2269]

Subp. 3. [Repealed, 19 SR 2269]

Subp. 3a. **Sewage sludge without charge.** If sewage sludge is transferred between parties without compensation, a copy of the sewage sludge analysis required by the rules of the Minnesota Pollution Control Agency is sufficient to meet the labeling requirements.

Subp. 4. **Packaged soil or plant amendments.** If packaged soil or plant amendments are offered for sale, the information required in subpart 1 must be in a readable and conspicuous form and must appear:

- A. on the front or back side of the container;
- B. on the upper one-third of the side of a container;
- C. on the upper end of the container; or
- D. printed on a tag affixed to the upper end of the container.

Subp. 5. **Bulk soil or plant amendments.** If bulk soil or plant amendments are offered for sale, the information required in subpart 1, in written or printed form, must be supplied to the purchaser.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2269*

1510.0433 LABELING AND LABELS.

Subpart 1. **Labeling and labels.** Proposed labeling and labels with directions for use of the soil or plant amendment must be furnished with an application for registration of a soil or plant amendment.

Subp. 2. **Animal manures.** If ingredients are added to animal manure, the ingredients must be specified on the principal label of the container. If the added ingredient exceeds the amount of manure, it must be the first ingredient listed on the principal label and "manure," "cattle manure," "sheep manure," or a similar term must be in type noticeably smaller than that used for the added ingredient. If the packaging of a product features the picture of a designated animal, manure of that species of animal must comprise more than 50 percent of the material in the container.

Subp. 3. **Environmentally beneficial.** A claim that a product is "environmentally beneficial" or a similar claim must be accompanied by a statement of explanation of the rationale for the claim and a list of all ingredients in order to allow the consumer to determine the validity of the statement.

Subp. 4. **Safety.** A statement suggesting that a product is completely safe and nontoxic to humans, animals, or the environment is a misbranding of the product and must not appear on the label.

Subp. 5. **Name of a soil or plant amendment material.** If the name of a soil or plant amendment ingredient is used as part of the brand name of a soil or plant amendment, such as animal manure, peat, sphagnum peat moss, or compost, the soil or plant amendment must be composed entirely of the ingredient named.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2269*

1510.0434 ENFORCEMENT.

The commissioner shall proceed in accordance with Minnesota Statutes, section 18D.305, upon satisfactory evidence that a label or labeling of a soil or plant amendment or sewage sludge does not comply with parts 1510.0430 to 1510.0434.

Statutory Authority: *MS s 17.725; 18C.121*

History: *19 SR 2269*

1510.0480 [Repealed, 21 SR 277]

1510.0490 [Repealed, 21 SR 277]

1510.0500 [Repealed, 21 SR 277]

1510.0510 [Repealed, 21 SR 277]

1510.0520 [Repealed, 21 SR 277]

- 1510.0530 [Repealed, 21 SR 277]
- 1510.0540 [Repealed, 21 SR 277]
- 1510.0550 [Repealed, 21 SR 277]
- 1510.0560 [Repealed, 21 SR 277]
- 1510.0570 [Repealed, 21 SR 277]
- 1510.0580 [Repealed, 21 SR 277]
- 1510.0590 [Repealed, 21 SR 277]
- 1510.0600 [Repealed, 21 SR 277]
- 1510.0610 [Repealed, 21 SR 277]
- 1510.0620 [Repealed, 21 SR 277]
- 1510.0630 [Repealed, 21 SR 277]
- 1510.0640 [Repealed, 21 SR 277]
- 1510.0650 [Repealed, 21 SR 277]
- 1510.0660 [Repealed, 21 SR 277]
- 1510.0670 [Repealed, 21 SR 277]
- 1510.0680 [Repealed, 21 SR 277]
- 1510.0685 [Repealed, 21 SR 277]
- 1510.0690 [Repealed, 21 SR 277]
- 1510.0700 [Repealed, 21 SR 277]
- 1510.0710 [Repealed, 21 SR 277]
- 1510.0720 [Repealed, 21 SR 277]
- 1510.0730 [Repealed, 21 SR 277]
- 1510.0740 [Repealed, 21 SR 277]
- 1510.0750 [Repealed, 21 SR 277]
- 1510.0760 [Repealed, 21 SR 277]
- 1510.0770 [Repealed, 21 SR 277]
- 1510.0780 [Repealed, 21 SR 277]
- 1510.0790 [Repealed, 21 SR 277]
- 1510.0800 [Repealed, 21 SR 277]
- 1510.0810 [Repealed, 21 SR 277]
- 1510.0820 [Repealed, 21 SR 277]
- 1510.0830 [Repealed, 21 SR 277]
- 1510.0840 [Repealed, 21 SR 277]

MINNESOTA RULES 2005

753

SEEDS, FERTILIZERS, FEEDS

1510.0850 [Repealed, 21 SR 277]

1510.0860 [Repealed, 21 SR 277]

1510.0870 [Repealed, 21 SR 277]

1510.0880 [Repealed, 21 SR 277]

1510.0890 [Repealed, 29 SR 655]

1510.0900 [Repealed, 29 SR 655]

1510.0910 [Repealed, 29 SR 655]

1510.0920 [Repealed, 29 SR 655]

1510.0930 [Repealed, 29 SR 655]

1510.0940 [Repealed, 29 SR 655]

1510.0950 [Repealed, 29 SR 655]

1510.0960 [Repealed, 29 SR 655]

1510.0970 [Repealed, 29 SR 655]

1510.0980 [Repealed, 29 SR 655]

1510.0990 [Repealed, 29 SR 655]

1510.1000 [Repealed, 29 SR 655]

1510.1010 [Repealed, 29 SR 655]

1510.1020 [Repealed, 29 SR 655]

1510.1030 [Repealed, 29 SR 655]

1510.1040 [Repealed, 29 SR 655]

1510.1050 [Repealed, 29 SR 655]

1510.1060 [Repealed, 29 SR 655]

1510.1070 [Repealed, 29 SR 655]

1510.1080 [Repealed, 29 SR 655]

1510.1090 [Repealed, 29 SR 655]

1510.1100 [Repealed, 21 SR 277]

1510.1110 [Repealed, 21 SR 277]

1510.1120 [Repealed, 21 SR 277]

1510.1130 [Repealed, 21 SR 277]

1510.1140 [Repealed, 21 SR 277]

1510.1150 [Repealed, 21 SR 277]

1510.1160 [Repealed, 21 SR 277]

1510.1170 [Repealed, 21 SR 277]

SEEDS, FERTILIZERS, FEEDS

- 1510.1180 [Repealed, 21 SR 277]
- 1510.1190 [Repealed, 21 SR 277]
- 1510.1200 [Repealed, 21 SR 277]
- 1510.1210 [Repealed, 21 SR 277]
- 1510.1220 [Repealed, 21 SR 277]
- 1510.1230 [Repealed, 21 SR 277]
- 1510.1240 [Repealed, 21 SR 277]
- 1510.1250 [Repealed, 21 SR 277]
- 1510.1260 [Repealed, 21 SR 277]
- 1510.1270 [Repealed, 21 SR 277]
- 1510.1280 [Repealed, 21 SR 277]
- 1510.1290 [Repealed, 21 SR 277]
- 1510.1300 [Repealed, 21 SR 277]
- 1510.1310 [Repealed, 21 SR 277]
- 1510.1320 [Repealed, 21 SR 277]
- 1510.1330 [Repealed, 21 SR 277]
- 1510.1340 [Repealed, 21 SR 277]
- 1510.1350 [Repealed, 21 SR 277]
- 1510.1360 [Repealed, 21 SR 277]
- 1510.1370 [Repealed, 21 SR 277]
- 1510.1380 [Repealed, 21 SR 277]
- 1510.1390 [Repealed, 21 SR 277]
- 1510.1400 [Repealed, 21 SR 277]
- 1510.1410 [Repealed, 21 SR 277]
- 1510.1420 [Repealed, 21 SR 277]
- 1510.1430 [Repealed, 21 SR 277]
- 1510.1440 [Repealed, 21 SR 277]
- 1510.1450 [Repealed, 21 SR 277]
- 1510.1460 [Repealed, 21 SR 277]
- 1510.1470 [Repealed, 21 SR 277]
- 1510.1480 [Repealed, 21 SR 277]
- 1510.1490 [Repealed, 21 SR 277]
- 1510.1500 [Repealed, 21 SR 277]

MINNESOTA RULES 2005

755

SEEDS, FERTILIZERS, FEEDS

- 1510.1510 [Repealed, 21 SR 277]
- 1510.1520 [Repealed, 21 SR 277]
- 1510.1530 [Repealed, 21 SR 277]
- 1510.1540 [Repealed, 21 SR 277]
- 1510.1550 [Repealed, 21 SR 277]
- 1510.1560 [Repealed, 21 SR 277]
- 1510.1570 [Repealed, 21 SR 277]
- 1510.1580 [Repealed, 21 SR 277]
- 1510.1590 [Repealed, 21 SR 277]
- 1510.1600 [Repealed, 21 SR 277]
- 1510.1610 [Repealed, 21 SR 277]
- 1510.1620 [Repealed, 21 SR 277]
- 1510.1630 [Repealed, 21 SR 277]
- 1510.1640 [Repealed, 21 SR 277]
- 1510.1650 [Repealed, 21 SR 277]
- 1510.1660 [Repealed, 21 SR 277]
- 1510.1670 [Repealed, 21 SR 277]
- 1510.1680 [Repealed, 21 SR 277]
- 1510.1690 [Repealed, 21 SR 277]
- 1510.1700 [Repealed, 21 SR 277]
- 1510.1710 [Repealed, 21 SR 277]
- 1510.1720 [Repealed, 21 SR 277]
- 1510.1730 [Repealed, 21 SR 277]
- 1510.1740 [Repealed, 21 SR 277]
- 1510.1750 [Repealed, 21 SR 277]
- 1510.1760 [Repealed, 21 SR 277]
- 1510.1770 [Repealed, 21 SR 277]
- 1510.1780 [Repealed, 21 SR 277]
- 1510.1790 [Repealed, 21 SR 277]
- 1510.1800 [Repealed, 21 SR 277]
- 1510.1810 [Repealed, 21 SR 277]
- 1510.1820 [Repealed, 21 SR 277]
- 1510.1830 [Repealed, 21 SR 277]

1510.1840 [Repealed, 21 SR 277]

1510.1850 [Repealed, 21 SR 277]

1510.1860 [Repealed, 21 SR 277]

1510.1870 [Repealed, 21 SR 277]

1510.1880 [Repealed, 21 SR 277]

1510.1890 [Repealed, 21 SR 277]

1510.1900 [Repealed, 21 SR 277]

1510.1910 [Repealed, 21 SR 277]

1510.1920 [Repealed, 21 SR 277]

COMMERCIAL FEEDS

1510.1930 DEFINITIONS AND TERMS.

Subpart 1. **Commercial feed terms.** The names and definitions for commercial feeds are specified in the Official Definition of Feed Ingredients adopted by the Association of American Feed Control Officials.

The terms used in reference to commercial feeds and feed ingredients are specified in the Official Feed Terms adopted by the Association of American Feed Control Officials and published in the Official Publication of the Association of American Feed Control Officials which, for purposes of this chapter, is incorporated by reference. This document can be found at the Minnesota Law Library Judicial Center, 25 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, MN 55155.

Subp. 2. **Exempt commodities.** The following commodities, if unadulterated under Minnesota Statutes, section 25.37, are exempt from the definition of commercial feed: raw meat, hay, loose salt, straw, stover, silages, cobs, husks, and hulls, if they are unground and not mixed or intermixed with other materials.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.1935 [Repealed, 29 SR 655]

1510.1940 [Repealed, 29 SR 655]

1510.1943 LABEL FORMAT.

Subpart 1. **Commercial feed; general.** Commercial feed, other than customer-formula feed, must be labeled with the information prescribed in this subpart on the principal display panel of the product and in the following format:

- A. product and brand name, if any, as prescribed in part 1510.1947, subpart 2;
- B. if drugs are used, label as prescribed in part 1510.1947, subpart 3;
- C. purpose statement as prescribed in part 1510.1947, subpart 4;
- D. the guaranteed analysis as prescribed in part 1510.1947, subpart 5;
- E. feed ingredients as prescribed in part 1510.2130.

F. directions for use and precautionary statements as prescribed in parts 1510.2170 and 1510.2180;

G. name and principal mailing address of the manufacturer or person responsible for distributing the commercial feed as prescribed in part 1510.1947, subpart 7;

H. quantity statement in terms defined in Minnesota Statutes, section 25.33, subdivision 24, with net weight displayed, if required, in both English and metric units; and

I. label information placed as follows:

(1) all of the information required in items A to E, G, and H, appearing on one side of the label or on one side of the container; and

(2) the information required in item F, displayed in a prominent place on the label or container but not necessarily on the same side as the rest of the information. If the information required by item F is placed on a different side of the label or container, it must be referenced on the front side with a statement such as "See back of label for directions for use." None of the information required by this part may be subordinated or obscured by other statements or designs.

Subp. 2. **Customer-formula feed.** Customer-formula feed must be accompanied by the information prescribed in this subpart using a label, invoice, delivery ticket, or other shipping document bearing the following information:

A. the name and address of the manufacturer;

B. the name and address of the purchaser;

C. the date of sale or delivery;

D. the customer-formula feed and brand name, if any;

E. the product name and net quantity of each commercial feed and each other ingredient used in the mixture, or a guaranteed analysis and ingredient list in accordance with Minnesota Statutes, section 25.35, paragraph (a), clauses (2) and (3);

F. the directions for use and precautionary statements as required by parts 1510.2170 and 1510.2180; and

G. if a drug-containing product is used:

(1) the purpose of the medication (claim statement); and

(2) the established name of each active drug ingredient and the level of each drug used in the final mixture in accordance with part 1510.2070, subpart 4.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.1947 LABEL INFORMATION.

Subpart 1. **Requirement.** Commercial feed, other than customer-formula feed, must be labeled with the information prescribed in this part.

Subp. 2. **Product and brand name.** The product name and brand name must be indicated in accordance with items A to I.

A. The brand or product name must be appropriate for the intended use of the feed and must not be misleading. Feed must conform with any specific use indicated by a product name. A commercial feed for a particular animal class must be suitable for that purpose.

B. Commercial names, registered brand names, or trade names are not permitted in guarantees or ingredient listings and are only permitted in the product name of feeds produced by or for the firm holding the rights to the name used.

C. No product or brand name may identify an ingredient of a commercial feed to the exclusion of another ingredient unless:

(1) the identified ingredient imparts to the commercial feed a distinctive characteristic that is significant to the purchaser;

(2) the ingredient is quantitatively guaranteed in the guaranteed analysis of the commercial feed label; and

(3) the brand or product name is not otherwise false or misleading.

D. "Protein" is not permitted in the product name of a feed that contains added nonprotein nitrogen.

E. A product name that carries a percentage value is understood to signify crude protein, equivalent crude protein content only, or the sum of crude protein and equivalent crude protein. Other percentage values are only permitted if they are followed by the proper descriptive modifier and conform to the requirements of part 1510.1943 and this part. Digital numbers must not be used in a way that misleads or confuses the customer.

F. Single ingredient feeds must have a product name in accordance with the designated definition of feed ingredients contained in the Official Publication of the Association of American Feed Control Officials.

G. "Vitamin," a contraction of vitamin, or a word suggesting vitamin, may only be used in the name of a feed that is represented as a vitamin supplement and labeled with the minimum content of each vitamin declared, as specified in part 1510.2070, subpart 3.

H. The term "mineralized" must not be used in the name of a feed except for "trace mineralized salt."

I. The term "meat" or "meat by-products" must be qualified to designate the animal from which the meat and meat by-products are derived unless the meat and meat by-products are made from cattle, swine, sheep, or goats.

Subp. 3. **Drug usage.** If a drug is used in the product:

A. the word "medicated" must appear directly following and below the product name in type size no smaller than one-half the type size of the product name;

B. there must be a purpose statement as required in subpart 4;

C. the purpose of the medication must be stated; and

D. there must be an active ingredient statement listing the active drug ingredients by their established names and the amounts in accordance with part 1510.2070, subpart 4.

Subp. 4. **Purpose statement.** A purpose statement must be included in accordance with items A to E.

A. The purpose statement must identify the specific species and animal classes for which the feed is intended.

B. The purpose statement may be excluded from the label if the product name includes a description of the species and animal classes for which the product is intended.

C. The purpose statement of a premix for the manufacture of feed may exclude the animal class and species and state "For Further Manufacture of Feed" if the nutrients contained in the premix are guaranteed and sufficient for formulation into various animal species feeds.

D. The purpose statement of a single purpose ingredient blend, such as a blend of animal protein products, milk products, fat products, roughage products, or molasses products may exclude the animal class and species and state "For Further Manufacture of Feed" if the label guarantees of the nutrients contained in the single purpose nutrient blend are sufficient to provide for formulation into various animal species feeds.

E. The purpose statement of a product must include a statement of enzyme functionality if enzymatic activity is represented in any manner.

Subp. 5. **Guarantees.**

A. If they are stated, guarantees must be in the following sequence: crude protein, equivalent crude protein from nonprotein nitrogen, amino acids, crude fat, crude fiber, acid detergent fiber, calcium, phosphorus, salt, and sodium. Other required and voluntary guarantees must follow so that the units of measure used to express guarantees are listed in a sequence that provides a consistent grouping of the units of measure.

B. The required guarantees of grain mixtures, with or without molasses, and other feeds must include the following items, unless exempted in subitem (3), in the order listed:

- (1) animal classes and species for which the product is intended;
- (2) guaranteed analysis in the following order:
 - (a) minimum percentage crude protein;
 - (b) maximum or minimum percentage of equivalent crude protein from nonprotein nitrogen as required in part 1510.2070, subpart 5;
 - (c) minimum percentage of crude fat;
 - (d) maximum percentage of crude fiber;
 - (e) minerals in formula feeds, in the following order:
 - i. minimum and maximum percentages of calcium;
 - ii. minimum percentage of phosphorus;
 - iii. minimum and maximum percentage of salt, with minimum and maximum percentage of total sodium guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee;
 - (f) other minerals;
 - (g) minerals in feed ingredients as specified by the Official Publication of the Association of American Feed Control Officials;
 - (h) vitamins in terms specified in part 1510.2070, subpart 3;
 - (i) total sugars as invert on dried molasses products or products being sold primarily for their sugar content; and
 - (j) viable lactic-acid-producing microorganisms for use in silages in terms specified in part 1510.2070, subpart 7.

C. The packaging on a commercial feed intended to provide a specialized nutritional source for use in the manufacture of other feeds must state its intended purpose and guarantee those nutrients relevant to the stated purpose.

D. Exemptions:

(1) A mineral guarantee for feed, excluding feed manufactured as complete feed or for feed supplements intended to be mixed with grain to produce a complete feed for swine, poultry, fish, veal, and herd milk replacers, are not required when:

- (a) the feed or feed ingredient is not intended or represented or does not serve as a principal source of that mineral to the animal; or
- (b) the feed or feed ingredient is intended for non-food-producing animals and contains less than 6.5 percent total minerals.

(2) Guarantees for vitamins are not required if the commercial feed is neither formulated for nor represented in any manner as a vitamin supplement.

(3) Guarantees for crude protein, crude fat, and crude fiber are not required if the commercial feed is intended for purposes other than to furnish these substances or the substances are of minor significance relating to the primary purpose of the product, such as drug premixes, mineral or vitamin supplements, and molasses.

(4) Guarantees for microorganisms are not required when the commercial feed is intended for a purpose other than to furnish microorganisms or microorganisms are of minor significance relating to the primary purpose of the product and no specific label claims are made.

Subp. 6. **Feed ingredients; collective terms.** Feed ingredients must be listed in accordance with items A and B.

A. The name of each ingredient must be given, as defined in the Official Publication of the Association of American Feed Control Officials. If there is no official ingredient name, the common or usual name of the ingredient must be used.

B. Collective terms may be used for the grouping of feed ingredients as defined in the Official Definitions of Feed Ingredients published in the Official Publication of the Association of American Feed Control Officials in lieu of the individual ingredients, provided that:

(1) if a collective term for a group of ingredients is used on the label, individual ingredients defined by the collective term must not be listed on the label; and

(2) the manufacturer must provide the commissioner, upon request, with a list of individual ingredients, within a defined group, that are or have been used at manufacturing facilities distributing in or into the state.

Subp. 7. **Name; principal mailing address.** The name and principal mailing address of the manufacturer or person responsible for distributing the product must include the street address, city, state, and zip code. The street address may be omitted if it is shown in the current city directory or telephone directory for the city listed on the label.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.1950 [Repealed, 29 SR 655]

1510.2000 [Repealed, 29 SR 655]

1510.2010 [Repealed, 29 SR 655]

1510.2020 [Repealed, 29 SR 655]

1510.2030 [Repealed, 29 SR 655]

1510.2040 [Repealed, 29 SR 655]

1510.2050 [Repealed, 29 SR 655]

1510.2060 [Repealed, 29 SR 655]

1510.2070 EXPRESSION OF GUARANTEES.

Subpart 1. **Protein; amino acids; fat; fiber.** The guarantees for crude protein, amino acids, equivalent crude protein from nonprotein nitrogen, crude fat, crude fiber, and acid detergent fiber must be in terms of percentage by weight, as is.

Subp. 2. **Mineral guarantees.**

A. Calcium, salt, and sodium guarantees given in the guaranteed analysis must be stated and conform to the following:

(1) if the minimum is below 2.5 percent, the maximum must not exceed the minimum by more than 0.5 percentage point;

(2) if the minimum is 2.5 percent, but less than 5.0 percent, the maximum must not exceed the minimum by more than one percentage point; and

(3) if the minimum is 5.0 percent or greater, the maximum must not exceed the minimum by more than 20 percent of the minimum, and in no case may the maximum exceed the minimum by more than five percentage points.

B. Any guarantees for minimum and maximum total sodium and salt, minimum potassium, minimum magnesium, minimum sulfur, minimum phosphorus, and maximum fluorine must be in terms of percentage by weight, as is. Other minimum mineral guarantees must be stated in parts per million (ppm), as is, when the concentration is less than 10,000 ppm and in percentage by weight, as is, when the concentration is 10,000 ppm (one percent) or greater.

C. Products labeled with a quantity statement, such as tablets, capsules, granules, or liquids, may state mineral guarantees in milligrams (mg) per unit, consistent with the quantity statement and directions for use.

Subp. 3. **Minimum vitamin content.** Guarantees for minimum vitamin content of commercial feeds must be stated in mg/lb or in units consistent with those employed for the quantity statement and must be listed in the following order:

A. vitamin A, other than precursors of vitamin A, in international units per pound;

B. vitamin D-3 in products offered for poultry feeding, in international chick units per pound;

C. vitamin D for other uses, international units per pound;

D. vitamin E, in international units per pound;

E. concentrated oils and feed additive premixes containing vitamins A, D, and E may, at the option of the distributor, be stated in units per gram instead of units per pound;

F. vitamin B-12, in milligrams or micrograms per pound; and

G. all other vitamin guarantees in milligrams per pound in terms of the following: menadione, riboflavin, d-pantothenic acid, thiamine, niacin, vitamin B-6, folic acid, choline, biotin, inositol, p-amino benzoic acid, ascorbic acid, and carotene.

Subp. 4. **Drug guarantees.** Guarantees for drugs must be stated in terms of percent by weight, except as specified in items A to D.

A. Antibiotics present at less than 2,000 grams per ton (total) of commercial feed must be stated in grams per ton of commercial feed.

B. Antibiotics present at 2,000 or more grams per ton (total) of commercial feed must be stated in grams per pound of commercial feed.

C. Labels for commercial feeds containing growth promotion or feed efficiency levels of antibiotics which are to be fed continuously as the sole ration are not required to make quantitative guarantees except as specifically noted in Code of Federal Regulations, title 21, chapter 558, federal Food Additive Regulations for certain antibiotics, where quantitative guarantees are required regardless of the level or purpose of the antibiotic.

D. The term "milligrams per pound" may be used for drugs or antibiotics if a dosage is given in "milligrams" in the feeding directions.

Subp. 5. **Added nonprotein nitrogen.** Commercial feeds containing added nonprotein nitrogen must be labeled according to items A and B.

A. For ruminants,

(1) complete feeds, supplements, and concentrates containing added nonprotein nitrogen and more than five percent protein from natural sources must be guaranteed as follows:

(a) crude protein, minimum, percent;

(b) (this includes not more than percent equivalent crude protein from nonprotein nitrogen);

(2) mixed feed concentrates and supplements containing less than five percent protein from natural sources may exclude the guarantee for crude protein; and

(3) ingredient sources of nonprotein nitrogen such as urea, diammonium phosphate, ammonium polyphosphate solution, ammoniated rice hulls, or other basic nonprotein nitrogen ingredients defined by the Association of American Feed Control Officials must be guaranteed as follows:

(a) nitrogen, minimum, percent;

(b) equivalent crude protein from nonprotein nitrogen, minimum, percent.

B. For nonruminants,

(1) complete feeds, supplements, and concentrates containing crude protein from all forms of nonprotein nitrogen, added as such, must be labeled as follows:

(a) crude protein, minimum percent;

(b) (this includes not more than percent equivalent crude protein which is not nutritionally available to (species of animal for which feed is intended));

(2) premixes, concentrates, or supplements intended for nonruminants containing more than 1.25 percent equivalent crude protein from all forms of nonprotein nitrogen, added as such, must contain adequate directions for use and a prominent statement: “WARNING: THIS FEED MUST BE USED ONLY IN ACCORDANCE WITH DIRECTIONS FURNISHED ON THE LABEL.”

Subp. 6. **Mineral phosphatic materials.** Mineral phosphatic materials for feeding purposes must be labeled with the guarantee for minimum and maximum percentage of calcium, when present, the minimum percentage of phosphorus, and the maximum percentage of fluorine.

Subp. 7. **Microorganisms.** Guarantees for microorganisms must be stated in colony forming units per gram (CFU/g) when directions are for using the product in grams, or in colony-forming units per pound (CFU/lb) when directions are for using the product in pounds. A parenthetical statement following the guarantee must list each species in order of predominance.

Subp. 8. **Enzymes.** Guarantees for enzymes must be stated in units of enzymatic activity per unit weight or volume, consistent with label directions. The source organism for each type of enzymatic activity must be specified, such as: Protease (*Bacillus subtilis*) 5.5 mg amino acids liberated/min./milligram. Two or more sources that have the same type of activity must be listed in order of predominance based on the amount of enzymatic activity provided.

Statutory Authority: *MS s 25.40*

History: 29 SR 655

1510.2080 [Repealed, 29 SR 655]

1510.2090 [Repealed, 29 SR 655]

1510.2100 [Repealed, 29 SR 655]

1510.2110 [Repealed, 29 SR 655]

1510.2120 [Repealed, 29 SR 655]

1510.2130 INGREDIENTS.

Subpart 1. **Name.** The name of each ingredient or collective term for the grouping of ingredients, when required to be listed, shall be the official or tentative ingredient name as defined in the Official Definitions of Feed Ingredients as published in the Official Publication of the Association of American Feed Control Officials, or, if an official or tentative ingredient name is not published, the common or usual name for the ingredient may be used if the ingredient has a common accepted name that requires no definition, such as sugar.

Subp. 2. **Format.** The name of each ingredient must be shown in letters or type of the same size, font, and color. No reference to quality or grade of an ingredient shall appear in the ingredient statement of a commercial feed. The term “dehydrated” may precede the name of any product that has been artificially dried.

Subp. 3. **Single ingredient product.** A single ingredient product defined by the Association of American Feed Control Officials is not required to have an ingredient statement.

Subp. 4. **Iodized.** If the word “iodized” is used in connection with a feed ingredient, the feed ingredient must contain not less than 0.007 percent iodine, uniformly distributed.

Statutory Authority: *MS s 25.40*

History: 29 SR 655

1510.2140 [Repealed, 29 SR 655]

1510.2150 [Repealed, 29 SR 655]

1510.2160 [Repealed, 29 SR 655]

1510.2170 DIRECTIONS FOR USE AND PRECAUTIONARY STATEMENTS.

Directions for use and precautionary statements on the labeling of all commercial feeds and customer-formula feeds containing additives (including drugs, special purpose additives, or nonnutritive additives) shall:

A. be adequate to enable safe and effective use for the intended purposes by users with no special knowledge of the purpose and use of such articles; and

B. include, but not be limited to, all information prescribed by all applicable regulations under the federal Food, Drug and Cosmetic Act.

Adequate directions for use and precautionary statements are required for feeds containing nonprotein nitrogen as specified in part 1510.2180.

Adequate directions for use and precautionary statements necessary for safe and effective use are required on commercial feeds distributed to supply particular dietary needs or for supplementing or fortifying the usual diet or ration with any vitamin, mineral, or other dietary nutrient or compound.

Statutory Authority: *MS s 25.40*

1510.2180 NONPROTEIN NITROGEN.

Subpart 1. **Equivalent crude protein; caution.** Urea and other nonprotein nitrogen products defined in the Official Publication of the Association of American Feed Control Officials are acceptable ingredients only in commercial feeds for ruminant animals as a source of equivalent crude protein. If the commercial feed contains more than 8.75 percent of equivalent crude protein from all forms of nonprotein nitrogen, added as such, or the equivalent crude protein from all forms of nonprotein nitrogen, added as such, exceeds one-third of the total crude protein, the label must bear adequate directions for the safe use of feeds and a precautionary statement: "CAUTION: USE AS DIRECTED." The directions for use and the precautionary statement must be in type of such size so placed on the label that they will be read and understood by ordinary persons under customary conditions of purchase and use.

Subp. 2. **Nutrients other than equivalent crude protein.** Nonprotein nitrogen ingredients defined in the Official Publication of the Association of American Feed Control Officials are acceptable ingredients in commercial feeds distributed to nonruminant animals as a source of nutrients other than equivalent crude protein. The maximum equivalent crude protein from nonprotein nitrogen sources used in nonruminant rations must not exceed 1.25 percent of the total daily ration.

Subp. 3. **Exception.** On labels such as those for medicated feeds which bear adequate feeding directions and/or precautionary statements, the presence of added nonprotein nitrogen shall not require a duplication of the feeding directions or the precautionary statements as long as those statements include sufficient information to ensure the safe and effective use of this product due to the presence of nonprotein nitrogen.

Statutory Authority: *MS s 25.40*

History: 29 SR 655

1510.2190 DRUG AND FEED ADDITIVES.

Feed ingredients, including drugs, other special purpose additives, and nonnutritive additives may be used in the formulation of a commercial feed if the ingredient's safety, efficacy, and utility are established under one of the following conditions:

A. when the commercial feed contains such additives, the use of which conforms to the requirements of the applicable regulation in the Code of Federal

Regulations, title 21, or which are “prior sanctioned”, “informal review sanctioned,” or “generally recognized as safe” for such use;

B. when the commercial feed is itself a drug as defined in Minnesota Statutes, section 25.33, subdivision 8, and is generally recognized as safe and effective for the labeled use or is marketed subject to an application approved by the Food and Drug Administration under United States Code, title 21, section 360(b);

C. when one of the purposes for feeding a commercial feed is to impart immunity, the constituents imparting immunity have been approved for the purpose through the Federal Virus, Serum, and Toxins Act of 1913, as amended;

D. when the commercial feed is a direct-fed microbial and:

(1) the product meets the particular fermentation product definition defined by the Association of American Feed Control Officials;

(2) the microbial content statement, appearing on the label, is limited to the following: “Contains a source of live (viable) naturally occurring microorganism”; and

(3) the source is stated with a corresponding guarantee expressed in accordance with part 1510.2070, subpart 7; or

E. when the commercial feed is an enzyme product and:

(1) the product meets the particular definition defined by the Association of American Feed Control Officials; and

(2) the enzyme is stated with a corresponding guarantee expressed in accordance with part 1510.2070, subpart 8.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2200 ADULTERANTS.

Subpart 1. **Definition.** For the purpose of Minnesota Statutes, section 25.37, paragraph (a), the term “poisonous or deleterious substances” includes, but is not limited to, the following:

A. fluorine and any mineral or mineral mixture which is to be used directly for the feeding of domestic animals and in which the fluorine exceeds 0.20 percent for breeding and dairy cattle; 0.30 percent for slaughter cattle; 0.30 percent for sheep; 0.35 percent for lambs; 0.45 percent for swine; and 0.60 percent for poultry;

B. fluorine-bearing ingredients when used in such amounts that they raise the fluorine content of the total ration, exclusive of roughage, above the following amounts: 0.004 percent for breeding and dairy cattle; 0.009 percent for slaughter cattle; 0.006 percent for sheep; 0.01 percent for lambs; 0.015 percent for swine; and 0.035 percent for poultry;

C. fluorine-bearing ingredients incorporated in any feed that is fed directly to cattle, sheep, or goats consuming roughage, with or without limited amounts or grain, that results in a daily fluorine intake in excess of 50 milligrams of fluorine per 100 pounds of body weight;

D. soybean meal, flakes, or pellets or other vegetable meals, flakes, or pellets which have been extracted with trichlorethylene or other chlorinated solvents;

E. sulfur dioxide, sulfurous acid, and salts of sulfurous acid when used in or on feeds or feed ingredients which are considered or reported to be a significant source of vitamin B₁ (Thiamine); and

F. artificial color not listed and not used within the conditions, limitations, and tolerances prescribed for each coloring substance in Code of Federal Regulations, title 21, part 73A, for food coloring exempt from certification, or in Code of Federal Regulations, title 21, part 74A, for food coloring subject to certification. No artificial color material shall be used to enhance the natural color of the feed or feed ingredient whereby inferiority would be concealed.

Subp. 2. **Weed seeds.** All screenings or by-products of grains and seeds containing weed seeds, when used in commercial feed or sold as such to the consumer, must be ground fine enough or otherwise treated to destroy the viability of the weed seeds so that the level of such viable weed seeds in the finished product does not exceed the levels specified in Minnesota Statutes, sections 21.71 to 21.78.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2210 [Repealed, 29 SR 655]

1510.2220 GOOD MANUFACTURING PRACTICES.

For the purposes of enforcement of Minnesota Statutes, section 25.37, paragraph (b), clause (3), the commissioner adopts the following as current good manufacturing practices:

A. the regulations prescribing good manufacturing practices for Type B and Type C medicated feeds as published in Code of Federal Regulations, title 21, part 225, sections 225.1 through 225.202; and

B. the regulations prescribing good manufacturing practices for Type A medicated articles as published in Code of Federal Regulations, title 21, part 226, sections 226.1 through 226.115.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2230 MAMMALIAN PROTEINS PROHIBITED IN RUMINANT FEED.

Pursuant to Minnesota Statutes, section 25.40, subdivision 1, paragraph (b), the commissioner adopts Code of Federal Regulations, title 21, section 589.2000.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

SEED POTATO CERTIFICATION

1510.2300 AUTHORITY.

Parts 1555.6720 to 1555.6950 provide standards for the inspection, certification, production, and marketing of certified seed potatoes in the state of Minnesota. The authority to adopt these rules is contained in Minnesota Statutes, section 21.118.

Statutory Authority: *MS s 21.113*

1510.2305 DEFINITIONS.

Subpart 1. **General.** As used in parts 1555.6720 to 1555.6950, the following definitions apply unless the context clearly indicates otherwise.

Subp. 2. **Certified.** "Certified" has the meaning given it in Minnesota Statutes, section 21.111, subdivision 3.

Subp. 3. **Certified seed potatoes.** "Certified seed potatoes" means potatoes which have been produced, graded, sacked or placed in bulk, and inspected and certified in accordance with parts 1555.6720 to 1555.6950.

Subp. 3a. **Class.** "Class" means the seed quality level as it relates to compliance with the specified tolerances for diseases and varietal purity.

Subp. 3b. **Clone.** "Clone" means a unit of seed potatoes, being the progeny of one plant, which has been tested to become eligible to produce Primary Foundation 1 seed potatoes.

Subp. 4. **Commissioner.** "Commissioner" means the commissioner of agriculture or the commissioner's authorized representative.

Subp. 5. **Crop.** "Crop" means all lots produced on a farm in one year.

Subp. 6. **Department.** “Department” means the Department of Agriculture.

Subp. 6a. **Explant.** “Explant” means an in vitro potato plant or plantlet produced by rooting an excised tip of a tuber sprout or an axillary bud from a growing plant which serves as a parent for a whole clone or accession of micropropagated plants or plantlets.

Subp. 7. **Farm.** “Farm” means a seed potato enterprise. It includes all land, equipment, storage facilities, and laborers used to produce certified seed potatoes.

Subp. 8. **Field.** “Field” means a plot of land on a farm on which potatoes are grown for certification. The potatoes shall be of one variety from one certified seed potato growing operation and shall be grown in physical separation from other fields.

Subp. 9. **Inspected.** “Inspected” has the meaning given it in Minnesota Statutes, section 21.111, subdivision 2.

Subp. 10. **Lot.** “Lot” means a group of seed potatoes entered for certification that have passed the field inspection requirements. For the purposes of parts 1555.6720 to 1555.6950, a lot of potatoes also means that the group is of one variety, from one or more fields, grown on the same farm, and stored in physical separation from other lots.

Subp. 10a. **Material in maintenance.** “Material in maintenance” means propagative material, plantlets, or tubers that are maintained, not multiplied under controlled laboratory conditions.

Subp. 10b. **Physical separation.** “Physical separation” means separated by at least the width of one row, or markings such as flags that are at every corner of the lot or at least 100 yards apart, whichever is less. The markings must be visible to the inspector from anywhere on the separation.

Subp. 11. **Rejected.** “Rejected” means that a field or lot fails to meet the standards provided for in parts 1555.6720 to 1555.6950.

Subp. 12. **Seed potato certification inspector.** “Seed potato certification inspector” means an employee of the department authorized by the commissioner to inspect seed potato plants and tubers entered for certification.

Subp. 13. **Seed potatoes.** “Seed potatoes” has the meaning given it in Minnesota Statutes, section 21.111, subdivision 5.

Subp. 14. **Tolerance.** “Tolerance” means a specified allowance for variation from the standards provided for diseases and physical defects, as provided in parts 1555.6720 to 1555.6950.

Subp. 15. **Tuber unit.** “Tuber unit” means the separate pieces of one tuber that are planted consecutively in two or more hills in a row.

Statutory Authority: *MS s 21.113; 21.118*

History: *21 SR 482; 24 SR 546*

1510.2310 GENERAL GUIDANCE.

Subpart 1. **Scope.** The provisions of this part govern the production of potatoes for use as certified seed potatoes.

Subp. 2. **Seed potato certification.** In order to produce certified seed potatoes, a grower must comply with the following procedures:

A. Potatoes entered for certification shall be inspected while growing in the field and again after harvest at the time of shipment. Certification shall be based upon visual inspection by the commissioner of sample plants and tubers from each field and lot, or for varieties that do not express visible symptoms of a specific pathogen, seed potatoes must be subjected to laboratory tests to determine the level of the pathogen in a seed lot. This testing may occur during the growing season, storage season, or winter testing. Certificates shall be issued to show the varietal purity, freedom from disease, and physical defects of the potatoes at the time of inspection.

B. Participation in the certified seed potato program shall be voluntary. The applicant may withdraw at any time. Farming and sanitation practices are the responsi-

bility of the applicant. Certification and inspection under parts 1555.6720 to 1555.6950 shall be conducted by the commissioner. Failure of the applicant to comply with the requirements of these parts shall be cause for rejection of any field or lot. Potatoes from rejected fields or lots cannot be sold as certified seed potatoes.

Subp. 3. **Winter testing.** In order to detect certain virus diseases, samples from all classes as defined in parts 1555.6840 and 1555.6845 shall be winter tested. In the event of serious malfunctions of the winter test, classification of lots in the certified classes must be based on the previous summer field readings.

Subp. 4. **Certified seed potato classes.** Seed potato certification classes are differentiated by their compliance level with disease tolerances and varietal purity. The origin of the seed also determines the class. The classes, according to their origin, in the generation system in descending order are: Prenuclear (PN), Nuclear (N), Generation 1 (G1), Generation 2 (G2), Generation 3 (G3), Generation 4 (G4), and Generation 5 (G5). Equivalent to this in the clonal system in descending order are: Primary Foundation 1 (PF1), Primary Foundation 2 (PF2), Foundation 1 (F1), Foundation 2 (F2), and Certified (C).

Subp. 5. **Certified seed potato grades.** Grades of certified seed potatoes are established according to the physical defects of the tubers. There are three grades used for shipping Minnesota certified seed potatoes.

A. The blue tag certified seed potato grade, the first grade, has tolerances for physical defects of the tubers stricter than the other grades. This grade may be used by growers of Primary Foundation certified, Foundation certified, Generation certified, and Certified seed potatoes. The blue tag grade may be used for intrastate and interstate shipments of certified seed potatoes.

B. The yellow tag certified seed potato grade is the second grade. This grade allows more physical defects of the tubers than the blue tag certified seed potato grade. It may be used by growers of Primary Foundation certified, Foundation certified, Generation certified, and Certified seed potatoes. The yellow tag grade may also be used for intrastate and interstate shipments of certified seed potatoes.

C. The white tag certified seed potato grade is the third grade. The tolerances for physical defects of the tubers are determined by agreement between purchaser and seller of the certified seed potatoes. It may only be used for intrastate shipments of certified seed potatoes.

Subp. 6. **Zero tolerance for bacterial ring rot and potato spindle tuber viroid.** Certification rules make provisions to allow the presence of certain diseases at levels sufficiently low as to preclude significant effects on certified seed potato value. For bacterial ring rot and potato spindle tuber viroid, there is a zero tolerance, and the discovery of a single plant in the field or a tuber in storage infected with one of these diseases shall cause the rejection of the field or lot. The absence of a finding shall not be construed to mean that the field or lot inspected is free from the disease.

Subp. 7. **Warranty.** A certification does not represent a warranty of any kind, express or implied, including merchantability, as to the quality of the crop produced from the certified seed potatoes. A certification represents only that the seed potatoes were produced, graded, sacked or placed in bulk, and inspected in accordance with parts 1555.6720 to 1555.6950.

Statutory Authority: *MS s 21.113; 21.118*

History: *8 SR 1659; 21 SR 482; 22 SR 1547; 25 SR 1142*

1510.2315 APPLICATION FOR INSPECTION.

Subpart 1. **Eligibility; procedure.** All potatoes planted on a farm must be entered for certification. Application for inspection must be made before June 16 each year on forms furnished by the commissioner. Applications postmarked after June 15 but before July 1 must be charged a 50 cents per acre late registration fee. No applications may be accepted that are postmarked later than June 30. The commissioner may extend the deadline due to special circumstances, such as natural disasters, which make

it impractical or impossible for planting to be completed by the deadline and which affect an area or large number of growers.

Subp. 2. **Shipping point inspection certificates, bulk seed certificates, or certificates of origin.** An application for the inspection of a field planted with purchased certified seed potatoes must include copies of either the shipping point inspection certificates, bulk seed certificates, or certificates of origin for the total amount of purchased certified seed potatoes planted. Use of certificates of origin requires approval of both the seller and the purchaser and is restricted to intrastate shipments between certified seed potato producers. The certificate of origin must contain information considered necessary by the commissioner and must at a minimum identify seed potatoes as to the producer, variety, classification, and lot. The limitation of warranty in part 1555.6740, subpart 7, must be further limited to exclude any representation as to condition of the potatoes at the time of shipment.

Subp. 3. **Separate application.** A separate application must be completed for each field planted.

Subp. 4. **Sufficient acreage.** No application for inspection may be accepted from a grower in a community or county in which there is not sufficient acreage for the total inspection fee charges to cover the cost of wages and expenses of the inspectors providing the inspection service. Determination of sufficient acreage must be made by the commissioner.

Statutory Authority: *MS s 21.113; 21.118*

History: *11 SR 2164*

1510.2320 SEED POTATOES ELIGIBLE FOR MINNESOTA CERTIFICATION PLANTING.

Subpart 1. **Authorization.** A field may not be inspected for certification unless both the seed potato variety and the particular lot planted have the authorization of the commissioner. In considering seed potato varieties for authorization for certification planting, the commissioner shall consider scientific evidence and expert opinion. To be eligible for certification planting, seed potatoes must meet the requirements of subpart 2 or 3.

Subp. 2. **Minnesota grown seed potatoes.** The following classes of seed potatoes grown in Minnesota are eligible for planting: Prenuclear, Nuclear, Generation 1, Generation 2, Generation 3, Generation 4, Primary Foundation 1, Primary Foundation 2, Foundation 1, Foundation 2, and experimental status seed potatoes. The commissioner shall authorize the planting of Certified class or Generation 5 class seed potatoes if there is no source of higher classes than Certified class or Generation 5 class seed potatoes available to the grower, the lot has been winter tested, and the seed does not pose a serious disease threat.

Subp. 3. **Non-Minnesota grown seed potatoes.** Seed potatoes grown outside of the state approved for certification planting by the certifying agency in another state or a Canadian province may be planted if requirements for certification meet Minnesota requirements for certified seed potatoes of classes higher than Certified class or Generation 5 class, as indicated on an import affidavit.

Subp. 4. **Experimental status.** Seedlings or numbered selections may be accepted for entrance into the certification system in an experimental status. The applicant shall submit a written statement with the certification application from the breeder, originator, or originator's designee that the applicant has full and unrestricted rights to introduce the seedling or numbered selection into the commercial market, and that the seedling or numbered selection must be named within five years from acceptance of the application. If the seedling or numbered selection is not named within five years from acceptance of the application, a two-year waiting period must pass before the seedling or numbered selection may be reentered into the certification program. Seedlings or numbered selections in experimental status must be designated as a class and conform to the requirements of that class. The word "EXPERIMENTAL" must be added on

the tag. Lots from a breeder's seed that have not gone through the testing and, when necessary, virus-freeing, are considered either Foundation class 1 or 2, "EXPERIMENTAL."

Subp. 5. **Protected varieties.** Before a seed potato variety protected under the Plant Variety Protection Act Amendments of 1994 may be entered into the certification system, the applicant must submit a written statement with the certification application from the breeder, originator, or originator's designee that the applicant has full and unrestricted rights to introduce the protected variety into the commercial market.

Statutory Authority: *MS s 21.113; 21.118*

History: *8 SR 1659; 21 SR 482; 24 SR 546; 25 SR 1142*

1510.2325 REQUIREMENTS FOR CERTIFIED SEED POTATO PRODUCTION.

Subpart 1. **Requirements.** The standards in this part and part 1555.6845 must be met before potatoes may be classified as certified seed potatoes.

Subp. 2. **Field inspection and laboratory testing.** Certification must be based upon information regarding the following: stand, general vigor, varietal purity, disease tolerances, and factors affecting field inspection. At least two field inspections must be made of each field during the growing season. A final inspection must be made for bacterial ring rot, when symptom expression is optimal. If a final inspection cannot be carried out, because of management practices of the grower, or for reasons out of the grower's control, a laboratory test is necessary to maintain eligibility for certification. Additional inspections and laboratory tests may be made if necessary to meet phytosanitary requirements in established markets such as other states and Canadian provinces.

A. **Stand.** A field shall be rejected if there are a large number of plants missing due to disease.

B. **General vigor.** A field shall be rejected if it contains a large number of weak plants.

C. **Ring rot.** If bacterial ring rot is found in any field or lot, the remaining crop is not eligible for certification planting.

D. **Varietal purity.** A field must be rejected if it contains more than the tolerances acceptable for a specific class as listed in Tables 1 and 2 in part 1555.6845, subparts 11 and 12.

E. **Disease tolerances (percentage of infected plants).** A field must be rejected if it contains percentages of diseased plants in excess of those acceptable for a specific class as listed in Tables 1 and 2 in part 1555.6845, subparts 11 and 12.

F. **Factors affecting field inspection.** A field shall be rejected if any of the following are present to such an extent that satisfactory inspection for diseases cannot be made: early or late blight; blackleg or wilt of any kind; weeds; insect injury; chemical damage.

A field shall be rejected if any other conditions are present to such an extent that satisfactory inspection for diseases cannot be made. A field is ineligible for certification if there are cull piles in such close vicinity to the field that contamination of the field can be expected.

Subp. 3. **Roguing.** If any of the diseases listed in part 1555.6845 are present in a field in amounts less than the maximum disease tolerance level, the field must be rogued and the infected plants removed before the final inspection. If roguing is done after tubers form, the tubers from the rogued plants shall also be removed and destroyed.

Subp. 4. **Storage.** Lots shall not be stored in any warehouse where other potatoes are stored, nor shall they be stored under conditions of possible disease contamination. If more than one grower stores lots in the same warehouse, each grower's lots shall be properly identified by labeling the bin with the grower's name and address, variety, and amount in the bin. If the lots are to be stored in a public warehouse or storage unit not

directly under the control of the grower, a complete record giving location of the storage unit, number of the bin, variety, and the quantity stored shall be sent to the commissioner when the lots are put into storage. If it is available, a copy of the warehouse receipt shall also be sent to the commissioner.

Equipment used for grading and handling lots shall not be used for any other potatoes. If any equipment is used on other potatoes, the lots shall be rejected.

Any firm handling lots on contract shall label all bins containing lots with the name of the grower whose lots are being stored. Responsibility for proper labeling and subsequent handling rests with the firm. No certification tags or bulk certificates shall be issued until this is done.

Each grower shall submit a completed storage and yield report on each lot on forms furnished by the commissioner. Certification tags shall not be issued to growers who have not submitted the report.

Subp. 5. Tags and bulk certificates. Official blue, yellow, or white tags, bearing the grower's name and address, the potato variety, and the crop year shall be issued when the potatoes meet the certification requirements described in parts 1555.6740 to 1555.6845. Tags shall be fastened onto sacks so as to constitute a seal at the time the lots are prepared for shipment. Bulk certificates must also show the date of issuance, the class, the grade, and the approximate weight of the load.

Tags shall be issued only to growers, except when lots are stored in a public warehouse or in a storage unit not under direct control of the grower. They shall be issued to the owner or manager of the storage unit upon receipt of written authorization from the grower.

Responsibility for ordering tags shall rest entirely with each grower.

Subp. 6. Grading. All lots shall be inspected at the loading point whenever possible. If inspection at the loading point is impossible, request for grading inspection in transit shall be made. Every bagged lot or shipment offered for sale and bearing official certification tags shall be in new even-weight sacks. Bulk shipments shall be identified with a bulk certificate. Both bagged and bulk lots or shipments must meet grade standards specified in part 1555.6950. Lots or shipments that fail to meet grade standards when inspected shall be reconditioned, or:

A. if the lot or shipment is in sacks, the tags shall be removed under the supervision of a state or federal/state inspector before the lot or shipment is allowed to proceed to its destination; and

B. if the shipment is in bulk, no bulk certificate shall be issued.

All costs of reconditioning to meet grade shall be borne by the shipper.

Statutory Authority: *MS s 21.113; 21.118*

History: *11 SR 335; 17 SR 438; 21 SR 482; 24 SR 546*

1510.2330 REQUIREMENTS FOR PRODUCTION OF DIFFERENT CLASSES OF CERTIFIED SEED POTATOES.

Subpart 1. Prenuclear class certified seed potatoes (PN).

A. A lot grown as and intended to be Prenuclear must be grown from plants tested and shown to be free from the following pathogens:

- (1) *Clavibacter michiganensis ssp. sepedonicus* (ring rot);
- (2) *Erwinia carotovora* (blackleg);
- (3) potato virus X;
- (4) potato virus S;
- (5) potato virus A;
- (6) potato virus M;
- (7) potato virus Y;
- (8) potato spindle tuber viroid; and

(9) potato leaf roll virus.

Each initial explant or tuber must also have been tested for any other organisms for which testing is required by the phytosanitary requirements in another state or Canadian province. Material in maintenance must have been tested during the year of the production of prenuclear class.

B. Prenuclear class seed potatoes must be produced in a greenhouse or screenhouse under sanitary conditions, free from insects and weeds that can harbor or transmit potato diseases or other conditions of possible disease contamination. All facilities must be sufficiently insulated from insects by screens and double doors. The facilities and the equipment are subject to inspection to verify freedom from possible disease contamination.

C. One percent of each lot or ten plants or tubers from each lot, whichever is greater, must be tested during the growing season to verify that the crop is free from potato virus X, potato virus Y, potato leaf roll virus, *C. michiganensis*, and *E. carotovora*.

D. Prenuclear tubers may originate from greenhouse tubers for one year only if the greenhouse tubers have remained at the same growing operation and have remained isolated from field-grown tubers.

E. A lot must be rejected if it contains any diseased plants at any inspection, or varietal mixture at final inspection.

F. The allowable tolerances for disease and varietal mixture for seed potatoes classified as prenuclear are in Table 1 in subpart 11 under column PN.

Subp. 2. **Nuclear class certified seed potatoes (N).** Nuclear class seed potatoes must meet the following requirements:

A. The seed source must be either Prenuclear tubers or plantlets.

B. Tubers or plantlets must be planted in identifiable family units.

C. Each field must be tested during the growing season for potato virus X. For a lot to be tagged "virus tested (VT)," no more than one percent of the plants tested may be infected with potato virus X.

D. Each lot must be stored in an individual identifiable unit.

E. The allowable tolerances for disease and varietal mixture for seed potatoes classified as Nuclear are in Table 1 in subpart 11 under column N.

Subp. 3. **Generation 1 class certified seed potatoes (G1).** Generation 1 class seed potatoes must originate from Nuclear class seed potatoes. Each field may be tested during the growing season for potato virus X at grower's request. For a lot to be tagged "virus tested (VT)," no more than three percent of the plants tested may be infected with potato virus X. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G1.

Subp. 4. **Generation 2 class certified seed potatoes (G2).** Generation 2 class seed potatoes must originate from Generation 1 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G2.

Subp. 5. **Generation 3 class certified seed potatoes (G3).** Generation 3 class seed potatoes must originate from Generation 2 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G3.

Subp. 6. **Generation 4 class certified seed potatoes (G4).** Generation 4 class seed potatoes must originate from Generation 3 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G4.

Subp. 7. **Generation 5 class certified seed potatoes (G5).** Generation 5 class seed potatoes must originate from Generation 4 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G5.

Subp. 8. Primary Foundation classes (PF).

A. A lot grown as and intended to be Primary Foundation certified seed potatoes must originate from clonal selection, with all clones laboratory tested and be proven free from the following pathogens:

- (1) *Clavibacter michiganensis ssp. sepedonicus* (ring rot);
- (2) potato virus A;
- (3) potato virus M;
- (4) potato virus Y;
- (5) potato spindle tuber viroid; and
- (6) potato leaf roll virus.

B. A lot must be kept under direct control of the grower and must not be stored in any warehouse in which other potatoes are stored.

C. The two classes of Primary Foundation seed potatoes are PF1 and PF2.

(1) PF1 class certified seed potatoes must originate from clonal multiplication where all clones have been laboratory-tested. PF1 class seed potatoes are tuber united. Crops must be free of bacterial ring rot for a minimum of two years to be eligible to be PF1 class seed potatoes. The allowable tolerances for disease and variety mixture are in Table 2 in subpart 12 under column PF1.

(2) PF2 class certified seed potatoes must originate from PF1 class seed potatoes and originate from the same farm operation. They must be grown from potatoes produced on a tuber unit seed plot. Crops must be free of bacterial ring rot for a minimum of two years to be eligible to be PF2 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 2 in subpart 12 under column PF2.

Subp. 9. Foundation classes (F). The two classes of Foundation class seed potatoes are F1 and F2.

A. F1 class certified seed potatoes must originate from Primary Foundation class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 2 in subpart 12 under column F1.

B. F2 class certified seed potatoes must originate from F1 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 2 in subpart 12 under column F2.

Subp. 10. Certified class certified seed potatoes. Certified class seed potatoes must originate from Foundation or Generation classes of seed potatoes. The allowable tolerances for disease and varietal mixture are in subpart 11, Table 2, under column C.

Subp. 11. Table 1.

TABLE 1
TOLERANCES FOR DISEASES AND VARIETAL
MIXTURE FOR GENERATION CLASSES

| | CLASSES | | | | | | |
|---|---------|------|------|------|------|------|------|
| | PN | N | G1 | G2 | G3 | G4 | G5 |
| Severe Mosaic | 0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| Leaf roll | 0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| Total | 0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| Total other viruses (S and X excluded) | 0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| Mycoplasmas | 0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| Total | 0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| Mild Mosaic (S) | 0 | | | | | | |
| Mild Mosaic (X) | 0 | VT:1 | VT:3 | VT:3 | VT:3 | VT:3 | VT:3 |
| Blackleg | 0 | 0 | 0.2 | 0.5 | 1.0 | exc. | exc. |

MINNESOTA RULES 2005

773

SEEDS, FERTILIZERS, FEEDS 1510.2330

| | | | | | | | |
|----------------------------|---|-----|-----|-----|-----|-----|-----|
| Varietal Mixture | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0.2 |
| Ring Rot and Spindle Tuber | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Winter Test: | | | | | | | |
| Virus, Ch. Dam. | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| BRR, PSTV | | 0 | 0 | 0 | 0 | 0 | |
| Summer Test: | | | | | | | |
| PVX, VT* | 0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Virus, BRR, PSTV | 0 | | | | | | |

Numbers represent percentages

VT means Virus Tested

Mycoplasmas: Haywire, Witches Broom, Yellow Dwarf

Severe Mosaic: PVY, PVA, PVM

BRR means Bacterial Ring Rot

PSTV means Potato Spindle Tuber Viroid

Ch. Dam. means Expressing symptoms of chemical damage

* For the classes G1 and lower, the summer test for PVX is done on request of the grower only. The lot may be labeled "Virus Tested," if the tolerance of one percent for N and three percent for the lower classes is met.

Subp. 12. **Table 2.**

TABLE 2

**TOLERANCES FOR DISEASES AND VARIETAL MIXTURE FOR CLASSES
ORIGINATING FROM CLONAL MULTIPLICATION**

| | CLONE | CLASSES | | | | |
|---|-------|---------|-----|------|------|------|
| | | PF1 | PF2 | F1 | F2 | C |
| Severe Mosaic | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 1.00 |
| Leaf roll | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 |
| Total | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 1.0 |
| Total other viruses (S and X excluded) | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.5 |
| Mycoplasmas | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.5 |
| Total | 0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.5 |
| Mild Mosaic (S) | | | | | | |
| Mild Mosaic (X) | | | | | | |
| Blackleg | | 0.1 | 0.2 | exc. | exc. | exc. |
| Varietal Mixture | | | | 0.1 | 0.2 | 0.2 |
| Ring Rot and Spindle Tuber | 0 | 0 | 0 | 0 | 0 | |
| Winter Test: | | | | | | |
| Virus, Ch. Dam. | | 0.5 | 0.5 | 0.5 | 0.5 | |
| BRR, PSTV | | 0 | 0 | 0 | 0 | |
| Summer Test: | | | | | | |
| Virus, BRR, PSTV | 0 | | | | | |

Numbers represent percentages

VT means Virus Tested

Mycoplasmas: Haywire, Witches Broom, Yellow Dwarf

Severe Mosaic: PVY, PVA, PVM

BRR means Bacterial Ring Rot

PSTV means Potato Spindle Tuber Viroid

Ch. Dam. means Expressing symptoms of chemical damage.

Statutory Authority: *MS s 21.118*

History: *21 SR 482; 24 SR 546; 25 SR 1142*

1510.2335 SEEDS, FERTILIZERS, FEEDS

774

1510.2335 FEES.

Fees shall be set by the commissioner in amounts necessary to carry out the seed potato certification service. Fees shall be reviewed annually and notice of the current fee schedule sent to growers from time to time.

Statutory Authority: *MS s 21.113*

1510.2340 FIELD INSPECTION FEES.

Field inspection fees shall be paid at time of application for entry into the certification program.

Statutory Authority: *MS s 21.113*

1510.2345 WINTER-TESTING FEES.

Winter-testing fees shall be paid before results are sent to the grower.

Statutory Authority: *MS s 21.113*

1510.2350 FEES FOR OTHER DISEASE TESTING.

Fees for other disease testing shall be paid before results are listed in the Minnesota Seed Potato Certification Directory.

Statutory Authority: *MS s 21.113*

1510.2355 MINNESOTA CERTIFIED SEED POTATO GRADES AND TOLERANCES.

Subpart 1. **Minnesota certified seed potato grades.** Before potatoes are eligible for grading as certified seed potatoes, the requirements of parts 1555.6750 to 1555.6845 must be met.

Subp. 2. **Minnesota blue tag certified seed potato grade.** To be graded as Minnesota blue tag certified seed potatoes, the potatoes must meet the requirements in items A to C.

A. **Condition.** The potatoes must be, at the time of final inspection, of one variety, unwashed, fairly well-shaped, free from bacterial ring rot, late blight, freezing, black heart, and soft rot or wet breakdown, and free from damage caused by soil or other foreign matter, second growth, air cracks, cuts, shriveling, sprouts, pitted scab, surface scab, powdery scab, russet scab, dry rot, other diseases, insects or worms, mechanical or other means, flattened or depressed areas with underlying flesh discoloration, and from serious damage caused by hollow heart, wire worm, growth cracks, or internal discoloration other than hollow heart. Sunburn and silver scurf are not factors.

B. **Size.** For round or intermediate shaped varieties, the maximum size shall be not more than 12 ounces (340.2 grams) and, unless otherwise specified, the minimum size shall be not less than 1-1/2 inches (38.1 millimeters) in diameter. For long varieties, the maximum size shall be not more than 14 ounces (396.9 grams) and, unless otherwise specified, the minimum size shall be not less than 1-1/2 inches (38.1 millimeters) in diameter. For all varieties, size "B," the minimum diameter shall be not less than 1-1/2 inches (38.1 millimeters) and the maximum size shall be not more than 2-1/4 inches (57.1 millimeters) in diameter.

C. **Lot tolerances.** In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, are provided:

(1) For defects:

- (a) ten percent for potatoes seriously damaged by hollow heart;
- (b) five percent for potatoes seriously damaged by internal discoloration (other than hollow heart);
- (c) ten percent for potatoes damaged by soil or other foreign matter;
- (d) 20 percent for potatoes damaged by sprouts;
- (e) ten percent for potatoes seriously damaged by wireworm; and

MINNESOTA RULES 2005

775

SEEDS, FERTILIZERS, FEEDS 1510.2355

(f) six percent for potatoes which fail to meet the remaining requirements of the grade, provided that included in that amount not more than the following percentages are allowed for the following defects:

i. soft rot, frozen, or wet breakdown, 0.5 percent;
ii. damage by surface, powdery, or pitted scab, 2.0 percent;
iii. damage by dry rot, 2.0 percent, of which not more than 1.0 percent late blight tuber rot;

iv. bacterial ring rot, 0.0 percent; and
v. late blight tuber rot, 1.0 percent; and

(g) the following do not affect seed quality and must not be scored against the grade:

i. brown discoloration following skinning;
ii. dried stems;
iii. flattened or depressed areas showing no underlying flesh discoloration;

iv. greening;
v. sunburn;
vi. skin checks; and
vii. silver scurf.

(2) For offsize:

(a) five percent for potatoes which fail to meet the required or specified minimum size; and

(b) ten percent for potatoes which fail to meet the required maximum size.

Subp. 3. [Repealed, 22 SR 1547]

Subp. 3a. **Minnesota yellow tag certified seed potato grade.** To be graded as Minnesota yellow tag certified seed potatoes, the potatoes must meet the requirements in items A to D.

A. Condition. At the time of final inspection, the potatoes must be of one variety, unwashed, fairly well-shaped, free from bacterial ring rot, late blight, freezing, black heart, and soft rot or wet breakdown, and free from damage caused by second growth, air cracks, cuts, shriveling, pitted scab, surface scab, powdery scab, dry rot, other diseases, insects or worms, mechanical means or other means, and from serious damage caused by soil or other foreign matter, hollow heart, wireworm, growth cracks, russet scab, or internal discoloration other than hollow heart. Sunburn and silver scurf are not factors.

B. Size. For all varieties, the maximum size is 14 ounces (396.9 grams) and the minimum size is 1-1/2 inch (38.1 mm) in diameter. For all varieties, the minimum diameter for size "B" shall not be less than 1-1/2 inches (38.1 millimeters) and the maximum diameter shall not be more than 2-1/4 inches (57.1 millimeters). The department may grade potatoes that do not meet the maximum and minimum size specifications as Minnesota yellow tag certified seed potatoes if the buyer agrees to accept potatoes of alternate size specifications from the grower and these specifications are listed on the tag or bulk inspection certificate issued by the department.

C. Lot tolerances. In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, are provided:

(1) for defects:

(a) 20 percent for potatoes seriously damaged by hollow heart;
(b) five percent for potatoes seriously damaged by internal discoloration (other than hollow heart);
(c) ten percent for potatoes seriously damaged by soil or other foreign matter;

(d) ten percent for potatoes seriously damaged by wireworm;
 (e) 20 percent for potatoes that fail to meet the remaining requirements of the grade with not more than six percent serious damage provided that included in that amount not more than the following percentages are allowed for the following defects:

i. soft rot, frozen, or wet breakdown, 0.5 percent;
 ii. damaged by surface, powdery, or pitted scab, 5.0 percent;
 iii. damaged by dry rot, 2.0 percent, of which not more than 1.0 percent is late blight tuber rot;

iv. bacterial ring rot, 0.0 percent; and
 v. late blight tuber rot, 1.0 percent; and

(f) the following do not affect seed quality and must not be scored against the grade:

i. brown discoloration following skinning;
 ii. dried stems;
 iii. flattened or depressed areas with or without underlying flesh discoloration;

iv. greening;
 v. sunburn
 vi. skin checks;
 vii. silver scurf; and
 viii. sprouts; and

(2) for offsize:

(a) five percent for potatoes that fail to meet the required or specified minimum size; and

(b) ten percent for potatoes that fail to meet the required maximum size.

D. Shape. The potatoes must be fairly well shaped, with an exception for long varieties when specified as "except for shape." In that case the tubers may be misshapen.

Subp. 4. **Minnesota white tag certified seed potato grade.** Minnesota white tag certified seed potato grade consists of certified seed potatoes that are graded according to agreement between the seller and the purchaser as to size and defects, except that not more than one-half percent of soft rot, frozen, or wet breakdown and two percent dry rot, of which not more than one percent late blight tuber rot is allowed.

The use of the white tag certified seed potato grade must be restricted to intrastate shipments.

Subp. 5. **Application of tolerance.** The contents of individual containers, other than bulk conveyances, in the lot are subject to the following limitations provided that the averages for the entire lot are within the tolerances specified for the grade. An individual container in any lot may contain not more than double the tolerance specified except for sprouts and except that at least one defective specimen, other than bacterial ring rot, and one offsize specimen may be permitted in any container.

Subp. 6. **Condition after transit.** Deterioration developing in transit shall be considered as affecting condition and not grade.

Subp. 7. **Definitions.** For the purpose of this part, the terms in items A to J have the meanings given them unless the context clearly indicates otherwise.

A. "Mature" means that the outer skin (epidermis) does not loosen or "feather" readily during the ordinary methods of handling.

B. "Well-shaped" means the normal shape for the variety.

C. "Fairly well-shaped" means that the individual potato is not materially pointed, dumbbell-shaped, or otherwise ill-formed.

D. "Fairly clean" means that the individual potato is reasonably free from dirt, staining, or other foreign matter.

E. "Slightly dirty" means that the appearance of the individual potato is not materially affected by dirt, staining, or other foreign matter.

F. "Diameter" means the greatest dimension at right angles to the longitudinal axis. The long axis shall be used without regard to the position of the stem (stolon).

G. "Soft rot or wet breakdown" means any soft, mushy, or leaky condition of the tissues.

H. "Dry rot" means decaying tissue that is dry.

I. "Damage" means any defect or combination of defects which materially affects the appearance of the individual potato or which cannot be removed without a loss of more than five percent of the total weight of the potato including the peel covering the defective area. Any one of the following defects or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

(1) russet scab when it materially detracts from the appearance of the individual potato;

(2) second growth or growth cracks which have developed to such an extent as to materially affect the appearance of the individual potato;

(3) air cracks when removal causes a loss of more than five percent of the total weight of the potato;

(4) shriveling when the potato is more than moderately shriveled, spongy, or flabby;

(5) sprouting when the individual potato has sprouts over one inch in length;

(6) surface, powdery, or pitted scab, individually or in combination, which covers an area of more than five percent of the surface of the potato in the aggregate, or causes a loss of more than five percent of the total weight of the potato including peel covering defective area;

(7) soil if the individual potato has more than 50 percent of its surface affected by lightly caked soil which is scattered, or more than 15 percent of its surface badly caked with soil.

J. "Serious damage" means any defect or combination of defects which seriously affects the appearance of the individual potato or which cannot be removed without a loss of more than ten percent of the total weight of the potato including the peel covering the defective area. Any one of the following defects or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect shall be considered as serious damage:

(1) russet scab when it seriously detracts from the appearance of the potato;

(2) dirt when the appearance of the individual potato is seriously affected by caked or smeared dirt or other foreign matter;

(3) cuts when both ends are clipped or when more than an estimated one-fourth of the potato is cut away from one end or when the remaining portion of the clipped potato weighs less than six ounces;

(4) other cuts which seriously affect the appearance of the individual potato or which cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering defective area;

(5) shriveling when the potato is excessively shriveled, spongy, or flabby;

(6) surface, powdery, or pitted scab, individually or in combination, which covers an area of more than 25 percent of the surface of the potato in the aggregate, or causes a loss of more than ten percent of the total weight of the potato including peel covering defective area;

(7) wireworm and air cracks when removal causes a loss of more than ten percent of the total weight of the potato.

Statutory Authority: *MS s 21.113; 21.118*

History: 8 SR 1659; 11 SR 1407; 12 SR 1809; 17 SR 1829; 21 SR 482; 22 SR 1547; 26 SR 1141

RULES FOR PET FOOD AND SPECIALTY PET FOOD

1510.2500 DEFINITIONS AND TERMS.

Subpart 1. **Scope.** The definitions in this part and Minnesota Statutes, section 25.33, apply to parts 1510.2500 to 1510.2595.

Subp. 2. **All life stages.** "All life stages" means gestation/lactations, growth, and adult maintenance life stages.

Subp. 3. **Family.** "Family" means a group of products that are nutritionally adequate for any or all life stages based on nutritional similarity to a lead product, which has been successfully test-fed according to an AAFCO feeding protocol.

Subp. 4. **Immediate container.** "Immediate container" means the unit, can, box, tin, bag, or other receptacle or covering in which a pet food or specialty pet food is displayed for sale to retail purchasers, but does not include containers used as shipping containers.

Subp. 5. **Ingredient statement.** "Ingredient statement" means a collective and contiguous listing on a label of the ingredients making up the pet food or specialty pet food.

Subp. 6. **Principal display panel.** "Principal display panel" means the part of a label that is most likely to be displayed, presented, shown, or examined under normal and customary conditions of display for retail sale.

Statutory Authority: *MS s 25.40*

History: 29 SR 655

1510.2510 LABEL FORMAT AND LABELING.

Subpart 1. **Required information.** Pet food and specialty pet food must be labeled with the following information:

A. the product name and brand name, if any, on the principal display panel as specified in part 1510.2520;

B. a statement specifying the species name of the pet or specialty pet for which the food is intended, conspicuously designated on the principal display panel;

C. a quantity statement as defined in Minnesota Statutes, section 25.33, subdivision 24, on the principal display panel;

D. guaranteed analysis as specified in part 1510.2530;

E. an ingredient statement as specified in part 1510.2540, subpart 1;

F. a statement of nutritional adequacy or purpose if required under part 1510.2560;

G. feeding directions if required under part 1510.2570; and

H. the name and address of the manufacturer or distributor as specified in part 1510.2595.

Subp. 2. **Outer containers.** If a pet food or specialty pet food enclosed in an outer container or wrapper is intended for retail sale, all required label information must appear on the outer container or wrapper.

Subp. 3. **Graphics.** A vignette, graphic, or pictorial representation on a pet food or specialty pet food label must not misrepresent the contents of the package.

Subp. 4. **Use of “proven.”** The use of the term “proven” in connection with a label claim for a pet food or specialty pet food is not permitted unless the claim is substantiated by scientific or other empirical evidence.

Subp. 5. **Comparison.** No statement may appear upon the label or labeling of a pet food or specialty pet food that makes false or misleading comparisons between that product and any other product.

Subp. 6. **Endorsement.** A personal or commercial endorsement is permitted on a pet food or specialty pet food label if it is not false or misleading.

Subp. 7. **“New” or “improved” claims.** A statement on a pet food or specialty pet food label stating “improved,” “new,” or a similar designation must be substantiated and limited to six months’ production.

Subp. 8. **Preference.** A statement on a pet food or specialty pet food label stating preference or comparative attribute claims must be substantiated and is limited to one year of production, after which the claim must be removed or resubstantiated.

Statutory Authority: *MS s 25.40*

History: 29 SR 655

1510.2520 BRAND AND PRODUCT NAMES.

Subpart 1. **Certain terms.** The terms “100 percent,” “all,” or similar terms must not be used in the brand or product name of a pet food or specialty pet food if the product contains more than one ingredient, not including water sufficient for processing, decharacterizing agents, or trace amounts of preservatives and condiments.

Subp. 2. **Ingredients in name.** An ingredient or a combination of ingredients may form a part of the product name of a pet food or specialty pet food if:

A. the ingredients derived from animals, poultry, or fish constitute at least 95 percent of the total weight of the product. Water sufficient for processing may be excluded when calculating the percentage, however, the ingredients must constitute at least 70 percent of the total product weight;

B. any ingredient constitutes at least 25 percent of the weight of the product, provided that:

(1) water sufficient for processing may be excluded when calculating the percentage, as long as the ingredients constitute at least ten percent of the total product weight;

(2) a descriptor is used with the ingredient names, implying that other ingredients are included in the product formula. Examples of descriptors include “dinner,” “platter,” “entree,” “formula,” and “recipe”; and

(3) the descriptor is in the same size, style, and color print as the ingredient names;

C. the combination of ingredients included in the product name complies with the following:

(1) each ingredient constitutes at least three percent of the product weight, excluding water sufficient for processing;

(2) the names of the ingredients appear in the order of respective predominance by weight in the product; and

(3) all the ingredient names appear on the label in the same size, style, and color print.

Subp. 3. **With ingredient.** If the name of an ingredient appears in the product name of a pet food or specialty pet food or elsewhere on the product label and includes a descriptor such as “with” or similar designation, the named ingredients must each constitute at least three percent of the product weight exclusive of water for processing. If the names of more than one ingredient are shown, they appear in respective order of predominance by weight in the product. The three-percent minimum level does not apply to claims for condiments or nutrients, such as, but not limited to, vitamins,

minerals, and fatty acids. The word “with,” or similar designation, and named ingredients must be in the same size, style, color, and case print and be of no greater size than:

| Panel Size | Maximum “With Claim” Type Size |
|-----------------------|-----------------------------------|
| <5 square inches | 1/8 inch |
| 5-25 square inches | 1/4 inch |
| 25-100 square inches | 3/8 inch |
| 100-400 square inches | 1/2 inch |
| 400+ square inches | 1 inch |

Subp. 4. **Flavor.** A flavor designation may be included as part of the product name or elsewhere on the label of a pet food or specialty pet food if the flavor designation meets the following requirements:

A. the flavor designation:

- (1) conforms to the name of the ingredient as listed in the ingredient statement; or
 - (2) is identified by the source of the flavor in the ingredient statement;
- and

B. the word “flavor” is printed in the same size type and with an equal degree of conspicuousness as the name of the flavor designation.

Subp. 5. **Derivation from ingredient.** The product name of the pet food or specialty pet food must not be derived from one or more ingredients unless all ingredients are included in the name, except as specified by subpart 2 or 3, except that the name of an ingredient or combination of ingredients may be used as a part of the product name if:

A. the ingredient or combination of ingredients is present in sufficient quantity to impart a distinctive characteristic to the product or is present in amounts that have a material bearing upon the price of the product or upon acceptance of the product by the purchaser; or

B. it does not constitute a representation that the ingredient or combination of ingredients is present to the exclusion of other ingredients.

Subp. 6. **Contractions; coined names.** Contractions or coined names referring to ingredients must not be used in the brand name of a pet food or specialty pet food unless they comply with subpart 2, 3, or 4.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2530 EXPRESSION OF GUARANTEES.

Subpart 1. **Order and format.** The guaranteed analysis statements must comply with items A to D:

A. A pet food or specialty pet food label must list the following guarantees in the following order:

- (1) minimum percentage of crude protein;
- (2) minimum percentage of crude fat;
- (3) maximum percentage of crude fat, if required by part 1510.2590;
- (4) maximum percentage of crude fiber;
- (5) maximum percentage of moisture; and
- (6) other guarantees.

B. If ash is listed in the guaranteed analysis on a pet food or specialty pet food label, it must be guaranteed as a maximum percentage and must immediately follow the moisture guarantee.

C. A dog or cat food label must list other required or voluntary guarantees in the same order and units of the nutrients in the AAFCO Dog or Cat Food Nutrient Profiles. Guarantees for substances not listed in the AAFCO Dog or Cat Food Nutrient Profiles, or not otherwise provided for in items A to D, must immediately follow the listing of the recognized nutrients and be accompanied by an asterisk referring to the disclaimer "not recognized as an essential nutrient by the AAFCO Dog or Cat Food Nutrient Profiles." The disclaimer must appear immediately after the last guarantee under this item in the same size type as the guarantee.

D. A specialty pet food label must list other required or voluntary guarantees as required by part 1510.1943.

Subp. 2. Sliding scale method. The sliding scale method of expressing a guaranteed analysis on a pet food or specialty pet food label (for example, "Minimum crude protein 15-18 percent") is prohibited.

Subp. 3. Mineral supplement. The label of a pet food or a specialty pet food that is formulated as and represented to be a mineral supplement must include:

A. minimum guarantees for all minerals from sources declared in the ingredient statement and established by an AAFCO-recognized nutrient profile, expressed as the element in units specified in the nutrient profile;

B. minimum guarantees for all minerals from sources declared in the ingredient statement expressed as the element in units specified in part 1510.2070, subpart 2, item B, if no species-specific nutrient profile has been recognized by AAFCO;

C. mineral guarantees required by this subpart may be expressed in milligrams (mg) per unit, such as tablets, capsules, granules, or liquids, consistent with those employed in the quantity statement and directions for use; and

D. a weight equivalent such as 1 fluid ounce = 28 grams, for liquid products.

Subp. 4. Vitamin supplement. The label of a pet food or a specialty pet food that is formulated as and represented to be a vitamin supplement must include:

A. minimum guarantees for all vitamins from sources declared in the ingredient statement and established by an AAFCO-recognized nutrient profile, expressed in units specified in the nutrient profile;

B. minimum guarantees for all vitamins from sources declared in the ingredient statement expressed in units specified in part 1510.2070, subpart 3, if no species-specific nutrient profile has been recognized by AAFCO;

C. vitamin guarantees required by this subpart may be expressed in approved units, such as IU, mg, or g, per unit, such as tablets, capsules, granules, or liquids, consistent with those employed in the quantity statement and directions for use; and

D. a weight equivalent (1 fluid ounce = 28 grams) for liquid products.

Subp. 5. Nutrient comparison. If the label of a pet food or specialty pet food includes a comparison of the nutrient content of the food with levels established by an AAFCO-recognized nutrient profile, such as a table of comparison, a percentage, or any other designation referring to an individual nutrient or all of the nutrient levels, items A to D apply.

A. The product must meet the AAFCO-recognized nutrient profile.

B. The statement of comparison must be preceded by a statement that the product meets the AAFCO-recognized profile. That statement is not required, however, if the nutritional adequacy statement required by part 1510.2560 or 1510.2570 appears elsewhere on the product label.

C. The statement of comparison of the nutrient content must constitute a guarantee, but need not be repeated in the guaranteed analysis.

D. The statement of comparison may appear on the label separate and apart from the guaranteed analysis.

Subp. 6. **Maximum moisture.** The maximum moisture declared on a pet food or specialty pet food label must not exceed 78 percent or the natural moisture content of the ingredients, whichever is higher, except when the pet food or specialty pet food is not intended to be and is not labeled as complete and balanced for any or all life stages.

Subp. 7. **Crude protein, crude fat, or crude fiber.** Guarantees for crude protein, crude fat, and crude fiber are not required if the pet food or specialty pet food is intended for purposes other than to furnish the substances or the substances are of minor significance relative to the primary purpose of the product, such as a mineral or vitamin supplement.

Subp. 8. **Microorganisms and enzymes.** Guarantees for microorganisms and enzymes shall be stated in the format specified in part 1510.2070.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2540 INGREDIENTS.

Subpart 1. **Format.** Each ingredient of a pet food or specialty pet food must be listed in the ingredient statement in compliance with items A to D.

A. The names of all ingredients in the ingredient statement must be shown in letters or type of the same size.

B. The ingredients must be listed in descending order by predominance by weight in nonquantitative terms.

C. Ingredients must be listed and identified by the name and definition established by AAFCO.

D. Any ingredient with no established name and definition must be identified by the common or usual name of the ingredient.

Subp. 2. **Meat; meat by-products.** The ingredients "meat" or "meat by-products" must be qualified to designate the animal from which the meat or meat by-products are derived unless the meat or meat by-products are derived from cattle, swine, sheep, goats, or any combination of those animals. For example, ingredients derived from horses must be listed as "horsemeat" or "horsemeat by-products."

Subp. 3. **Brand or trade names.** Brand or trade names must not be used in an ingredient statement.

Subp. 4. **Ingredient attribute.** A reference to the quality, nature, form, or other attribute of an ingredient is allowed if the reference meets the following requirements:

A. the designation is not false or misleading;

B. the ingredient imparts a distinctive characteristic to the pet food or specialty pet food because it possesses that attribute; and

C. a reference to quality or grade of the ingredient does not appear in the ingredient statement.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2550 DRUGS AND PET FOOD ADDITIVES.

Subpart 1. **Artificial color.** An artificial color may be used in a pet food or specialty pet food if it is listed in Code of Federal Regulations, title 21, part 73A, for food coloring exempt from certification, or in Code of Federal Regulations, title 21, part 74A, for food coloring subject to certification. The coloring must be used within the conditions, limitations, and tolerances prescribed for the specific coloring substance.

Subp. 2. **Safety, efficacy, and utility.** Feed ingredients, including drugs, other special purpose additives, and nonnutritive additives may be used in the formulation of

a pet or specialty pet food if the ingredient's safety, efficacy, and utility are established under one of the following methods:

A. the pet food or specialty pet food contains additives, the use of which conforms to the requirements of the applicable regulation in Code of Federal Regulations, title 21, or which are "prior sanctioned" or "informal review sanctioned" or "generally recognized as safe" for use; or

B. the pet food or specialty pet food is a drug or contains a drug as defined in Minnesota Statutes, section 25.33, subdivision 8, and is "generally recognized as safe and effective" for the labeled use or is marketed subject to an application approved by the Food and Drug Administration under United States Code, title 21, section 360(b).

Subp. 3. **Included drugs.** If a drug is included in a pet food or specialty pet food, the format required by part 1510.1947, subpart 3, for labeling medicated feeds must be used for branded products, and part 1510.1943, subpart 2, item G, must be used for customer formula products.

Statutory Authority: *MS s 25.40*

History: 29 SR 655

1510.2560 NUTRITIONAL ADEQUACY.

Subpart 1. **Label claims.** The label of a pet food or specialty pet food that is intended for all life stages of the pet or specialty pet may include an unqualified claim, directly or indirectly, such as "complete and balanced," "perfect," "scientific," or "100% nutritious" if at least one of the following apply:

A. the product meets the nutrient requirements for all life stages established by an AAFCO-recognized nutrient profile;

B. the product meets the criteria for all life stages as substantiated by completion of the appropriate AAFCO-recognized animal feeding protocol; or

C. the product is a member of a product family that is nutritionally similar to a lead product containing a combination of ingredients that has been fed to a normal animal as the sole source of nourishment in accordance with the testing procedures established by AAFCO for all life stages, and:

(1) the nutritional similarity of the family product can be substantiated according to the Procedures for Establishing Pet Food Product Families developed by AAFCO; and

(2) the family product meets the criteria for all life stages.

Subp. 2. **Qualified claim.** The label of a pet food or specialty pet food that is intended for a limited purpose or a specific life stage, but not for all life stages, may include a qualified claim such as "complete and balanced," "perfect," "scientific," or "100% nutritious" if the product and claim meets all of the following:

A. the claim is qualified with a statement of the limited purpose or specific life stage for which the product is intended or suitable, such as, "complete and balanced for puppies or kittens," and the claim and the required qualification is juxtaposed on the same label panel and in the same size, style, and color print; and

B. the product meets at least one of the following:

(1) the nutrient requirements for the limited purpose or specific life stage established by an AAFCO-recognized nutrient profile;

(2) the criteria for a limited purpose or a specific life stage as substantiated by completion of the appropriate AAFCO-recognized animal feeding protocol; or

(3) the requirements of a product family which is nutritionally similar to a lead product which contains a combination of ingredients which, when fed for the limited purpose, will satisfy the nutrient requirements for the limited purpose and has had its capabilities in this regard demonstrated by adequate testing, and:

(a) the nutritional similarity of the family product can be substantiated according to the Procedures for Establishing Pet Food Product Families developed by AAFCO; and

(b) the family product meets the criteria for the limited purpose.

Subp. 3. **Nutritional adequacy statement.** Dog and cat food labels must include a statement of nutritional adequacy or purpose of the product except when the dog or cat food is clearly and conspicuously identified on the principal display panel as a “snack” or “treat.” The statement must consist of one of the following:

A. a claim that the dog or cat food meets the requirements of one or more of the recognized categories of nutritional adequacy: gestation/lactation, growth, maintenance, and all life stages. The claim must be stated verbatim as one of the following:

(1) “(Name of product) is formulated to meet the nutritional levels established by the AAFCO Dog (or Cat) Food Nutrient Profiles for” (Blank is to be completed by using the stage or stages of the pet’s life, such as, gestation/lactation, growth, maintenance, or the words “All Life Stages”);

(2) “Animal feeding tests using AAFCO procedures substantiate that (Name of Product) provides complete and balanced nutrition for” (Blank is to be completed by using the stage or stages of the pet’s life tested, such as, gestation/lactation, growth, maintenance, or the words “All Life Stages”); or

(3) “(Name of Product) provides complete and balanced nutrition for” (Blank is to be completed by using the stage or stages of the pet’s life, such as gestation/lactation, growth, maintenance, or the words “All Life Stages”) and is comparable in nutritional adequacy to a product which has been substantiated using AAFCO feeding tests;

B. a nutritional or dietary claim for purposes other than those listed in subpart 1 or 2, if the claim is scientifically substantiated; or

C. the statement “This product is intended for intermittent or supplemental feeding only,” if a product does not meet the requirements of this part or any other special nutritional or dietary need and so is suitable only for limited or intermittent or supplementary feeding.

Subp. 4. **Veterinary supervision.** A product intended for use by a veterinarian, or under the supervision or direction of a veterinarian must contain a statement in accordance with part 1510.2560, subpart 3.

Subp. 5. **Acceptable basis for claim.** The following AAFCO-recognized nutritional authority, nutrient profile, and animal feeding protocol are acceptable as the basis for a claim of nutritional adequacy:

A. as an AAFCO-recognized nutrient profile or nutritional authority:

(1) for dogs, the AAFCO Dog Food Nutrient Profiles;

(2) for cats, the AAFCO Cat Food Nutrient Profiles; and

(3) for specialty pets, the nutrient recommendations approved by the Committee on Animal Nutrition of the National Research Council of the National Academy of Sciences, provided that this nutrient recommendation is recognized only for the specific specialty pet for which the profile is intended; and

B. as an AAFCO-recognized animal feeding protocol, the AAFCO Dog and Cat Food Feeding Protocols.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2570 FEEDING DIRECTIONS.

Subpart 1. **Labeling requirements.** Feeding directions must be listed on the product label of all dog or cat food, including snacks or treats, labeled as complete and balanced for any or all life stages, as provided in part 1510.2560, subpart 3, except those pet foods labeled in accordance with part 1510.2560, subpart 4. The directions must be consistent with the intended use indicated in the nutritional adequacy statement, unless a limited use or more limited life stage designation is declared elsewhere, such as “adult formula.” These directions must be expressed in common terms and must appear prominently on the label. Feeding directions must, at a

minimum, state, "Feed (weight/unit of product) per (weight only) of dog (or cat)." The frequency of feeding must also be specified.

Subp. 2. **Veterinary supervision.** If a dog or cat food is intended for use by or under the supervision or direction of a veterinarian, the statement: "Use only as directed by your veterinarian" may be used in lieu of feeding directions.

Subp. 3. **Specialty pet foods.** Feeding directions must be listed on the product label of all specialty pet food, including snacks or treats, labeled as complete and balanced for any or all life stages, as provided in part 1510.2560, subpart 1. These feeding directions must be adequate to meet the nutrient requirements of the intended species of specialty pet as recommended by the AAFCO-recognized nutritional authority. These directions must be expressed in common terms and must appear prominently on the label. The frequency of feeding must also be specified.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2580 STATEMENTS OF CALORIE CONTENT.

Subpart 1. **Label requirements.** Except as required in part 1510.2590, the label of a dog or cat food may bear a statement of calorie content if the label complies with items A to E.

A. The statement must be separate and distinct from the guaranteed analysis and must appear under the heading "Calorie Content."

B. The statement must be measured in terms of metabolizable energy (ME) on an "as fed" basis and must be expressed as "kilocalories per kilogram" (kcal/kg) of product, and may also be expressed as kilocalories per familiar household measure, such as cans, cups, or pounds.

C. The calorie content must be determined by one of the following methods:

(1) by calculation using the "Modified Atwater" formula:

$$\text{ME(kcal/kg)} = 10[(3.5 \times \text{CP}) + (8.5 \times \text{CF}) + (3.5 \times \text{NFE})]$$

Where: ME = Metabolizable Energy

CP = % crude protein "as fed"

CF = % crude fat "as fed"

NFE = % nitrogen-free extract (carbohydrate) "as fed"

and the percentages of CP and CF are the arithmetic averages from proximate analyses of at least four production batches of the product, and the NFE is calculated as the difference between 100 and the sum of CP, CF, and the percentages of crude fiber, moisture, and ash (determined in the same manner as CP and CF); or

(2) in accordance with a testing procedure established by AAFCO.

D. An affidavit must be provided upon request to the commissioner when a laboratory analysis of the dog or cat food performed by the department under authority of Minnesota Statutes, section 25.41, has found that the calorie count differs from the label calorie statement, substantiating that the calorie content was determined by:

(1) item C, subitem (1), in which case the results of all the analyses used in the calculation must accompany the affidavit; or

(2) item C, subitem (2), in which case the summary data used in the determination of calorie content shall accompany the affidavit.

E. The calorie content statement must appear as one of the following:

(1) the claim on the label or other labeling must be followed parenthetically by the term "calculated" if the calorie content is determined in accordance with item C, subitem (1); or

(2) the value of calorie content stated on the label which is determined in accordance with item C, subitem (2), must not exceed or understate the value determined in accordance with item C, subitem (1), by more than 15 percent.

Subp. 2. **Comparative claims.** Comparative claims must not be false, misleading, or given undue emphasis and must be based on the same methodology for the products compared.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2590 DESCRIPTIVE TERMS.

Subpart 1. **Calorie terms.**

A. A dog food product that bears on its label the terms "light," "lite," "low calorie," or words of similar designation must:

(1) contain no more than 3,100 kcal ME/kg for products containing less than 20 percent moisture, no more than 2,500 kcal ME/kg for products containing 20 percent or more but less than 65 percent moisture, and no more than 900 kcal ME/kg for products containing 65 percent or more moisture;

(2) include on the label a calorie content statement:

(a) in accordance with the format provided in part 1510.2580; and

(b) which states no more than 3,100 kcal ME/kg for products containing less than 20 percent moisture, no more than 2,500 kcal ME/kg for products containing 20 percent or more but less than 65 percent moisture, and no more than 900 kcal ME/kg for products containing 65 percent or more moisture; and

(3) include on the label feeding directions which reflect a reduction in calorie intake consistent with the intended use.

B. A cat food product that bears on its label the terms "light," "lite," "low calorie," or words of similar designation must:

(1) contain no more than 3,250 kcal ME/kg for products containing less than 20 percent moisture, no more than 2,650 kcal ME/kg for products containing 20 percent or more but less than 65 percent moisture, and no more than 950 kcal ME/kg for products containing 65 percent or more moisture; and

(2) include on the label a calorie content statement:

(a) in accordance with the format provided in part 1510.2580; and

(b) which states no more than 3,250 kcal ME/KG for products containing less than 20 percent moisture, no more than 2,650 kcal ME/kg for products containing 20 percent or more but less than 65 percent moisture, and no more than 950 kcal ME/kg for products containing 65 percent or more moisture; and

(3) include on the label feeding directions which reflect a reduction in calorie intake consistent with the intended use.

C. A dog or cat food product that bears on its label a claim of "fewer calories," "reduced calories," or words of similar designation, must include on the label:

(1) the name of the product of comparison and the percentage of calorie reduction, expressed on an equal weight basis, explicitly stated and juxtaposed with the largest or most prominent use of the claim on each panel of the label on which the term appears;

(2) the comparative statement printed in type of the same color and style and at least one-half the type size used in the claim;

(3) a calorie content statement in accordance with the format provided in part 1510.2580; and

(4) feeding directions that reflect a reduction in calories compared to feeding directions for the product of comparison. A comparison between products in different categories of moisture content, for example, less than 20 percent, 20 percent or more but less than 65 percent, 65 percent or more, is misleading.

Subp. 2. Fat terms.

A. A dog food product that bears on its label the terms "lean," "low fat," or words of similar designation must:

(1) contain no more than nine percent crude fat for products containing less than 20 percent moisture, no more than seven percent crude fat for products containing 20 percent or more but less than 65 percent moisture, and no more than four percent crude fat for products containing 65 percent or more moisture;

(2) include on the product label in the guaranteed analysis:

(a) a maximum crude fat guarantee immediately following the minimum crude fat guarantee in addition to the mandatory guaranteed analysis information as specified in part 1510.2530, subpart 1, item A; and

(b) a maximum crude fat guarantee that is no more than nine percent crude fat for products containing less than 20 percent moisture, no more than seven percent crude fat for products containing 20 percent or more but less than 65 percent moisture, and no more than four percent crude fat for products containing 65 percent or more moisture.

B. A cat food product that bears on its label the terms "lean," "low fat," or words of similar designation must:

(1) contain a maximum percentage of crude fat that is no more than ten percent crude fat for products containing less than 20 percent moisture, no more than eight percent crude fat for products containing 20 percent or more but less than 65 percent moisture, and no more than five percent crude fat for products containing 65 percent or more moisture; and

(2) include on the product label in the guaranteed analysis:

(a) a maximum crude fat guarantee immediately following the minimum crude fat guarantee in addition to the mandatory guaranteed analysis information as specified in part 1510.2530, subpart 1, item A; and

(b) a maximum crude fat guarantee that is no more than ten percent crude fat for products containing less than 20 percent moisture, no more than eight percent for products containing 20 percent or more but less than 65 percent moisture, and no more than five percent crude fat for products containing 65 percent or more moisture.

C. A dog or cat food product that bears on its label a claim of "less fat," "reduced fat," or words of similar designation, must include on the label:

(1) the name of the product of comparison and the percentage of fat reduction (expressed on an equal weight basis) explicitly stated and juxtaposed with the largest or most prominent use of the claim on each panel of the label on which the term appears;

(2) a maximum crude fat guarantee in the guaranteed analysis immediately following the minimum crude fat guarantee in addition to the mandatory guaranteed analysis information as specified in part 1510.2530, subpart 1, item A; and

(3) the comparative statement printed in type of the same color and style and at least one-half the type size used in the claim. A comparison on the label between products in different categories of moisture content, for example, less than 20 percent, 20 percent or more but less than 65 percent, 65 percent or more, is misleading.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*

1510.2595 MANUFACTURER OR DISTRIBUTOR; NAME AND ADDRESS.

Subpart 1. **General rule.** The label of a pet food or specialty pet food must specify the name and address of the manufacturer or distributor. The statement of the place of business must include the street address, city, state, and zip code. However, the street address may be omitted if the street address is shown in a current city directory or telephone directory for the city listed on the label.

MINNESOTA RULES 2005

1510.2595 SEEDS, FERTILIZERS, FEEDS

788

Subp. 2. **Specific plants.** If a person manufactures or distributes a pet food or specialty pet food in a place other than the principal place of business, the label may state the principal place of business in lieu of the actual place where each package of the pet food or specialty pet food was manufactured or packaged or from which each package is to be distributed.

Statutory Authority: *MS s 25.40*

History: *29 SR 655*