

CHAPTER 41  
COMMERCIAL FEED

[Appeared as Ch 11, 1973 IDR]

[Prior to 7/27/88 see Agriculture Department 30—Ch 6]

**21—41.1(198) Definitions and terms.**

**41.1(1)** The names and definitions for commercial feeds shall be the official definitions of feed ingredients adopted by the Association of American Feed Control Officials, except as the secretary designates otherwise in specific cases.

**41.1(2)** The terms used in reference to commercial feeds shall be the official feed terms adopted by the AAFCO, except as the secretary designates otherwise in specific cases.

**41.1(3)** The following commodities are hereby declared exempt from the definition of commercial feed, under the provisions of Iowa Code section 198.3(3): raw meat, hay, straw, stover, silage, cobs, husks, and hulls when unground and when not mixed or intermixed with other materials, provided that these commodities are not adulterated within the meaning of Iowa Code section 198.7.

**41.1(4)** Individual chemical compounds and substances are hereby declared exempt from the definition of commercial feed under the provisions of Iowa Code section 198.3(3). It has been determined that these products meet the following criteria:

- a. There is an adopted AAFCO definition for the product.
- b. The product is either generally recognized as safe (GRAS) or is not covered by a specific FDA regulation.
- c. The product is either a naturally occurring product of relatively uniform chemical composition or is manufactured to meet the AAFCO definition of the product.
- d. The use of the product in the feed industry constitutes a minor portion of its total industrial use.
- e. Small quantities of additives which are intended to impart special desirable characteristics shall be permitted.
- f. There is no need or problem of control of this product.

**41.1(5)** The following substance is hereby declared exempt: loose salt.

**21—41.2(198) Label format.** Commercial feed, other than customer-formula feed, shall be labeled with the information prescribed in this rule on the principal display panel of the product and in the following format.

1. Product name and brand name, if any, as stipulated in 41.3(1).
2. If a drug is used, label as stipulated in 41.3(2).
3. Purpose statement as stipulated in 41.3(3).
4. Guaranteed analysis as stipulated in 41.3(4).
5. Feed ingredients as stipulated in 41.3(5).
6. Directions for use and precautionary statements as stipulated in 41.3(6).
7. Name and principal mailing address of the manufacturer or person responsible for distributing the feed as stipulated in 41.3(7).
8. Quantity statement.

**41.2(1)** The information required in 21—41.2“1” to 21—41.2“5,” 21—41.2“7” and 21—41.2“8” must appear in its entirety on one side of the label or on one side of the container. The information required by 21—41.2“6” shall be displayed in a prominent place on the label or container but not necessarily on the same side as the above information. When the information required by 21—41.2“6” 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 21—41.2(198) shall be subordinated or obscured by other statements or designs.

**41.2(2)** Customer-formula feed shall be accompanied with the information prescribed in this regulation using labels, 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 name and brand name if any.
- e.* The product name and net quantity of each registered commercial feed and each other ingredient used in the mixture.
- f.* The directions for use and precautionary statements as required by 21—41.7(198) and 21—41.8(198).
- g.* If a drug-containing product is used:
  - (1) The purpose of the medication (claim statement).
  - (2) The established name of each active drug ingredient and the level of each drug used in the final mixture expressed in accordance with 41.4(4).

**21—41.3(198) Label information.** Commercial feed, other than customer-formula feed, shall be labeled with the information prescribed in this regulation.

**41.3(1)** Product name and brand name if any.

*a.* The brand or product name must be appropriate for the intended use of the feed and must not be misleading. If the name indicates the feed is made for a specific use, the character of the feed must conform therewith. A commercial feed for a particular animal class must be suitable for that purpose.

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

*c.* The name of a commercial feed shall not be derived from one or more ingredients of a mixture to the exclusion of other ingredients and shall not be one representing any components of a mixture unless all components are included in the name; provided, that if any ingredient or combination of ingredients is intended to impart a distinctive characteristic to the product which is of significance to the purchaser, the name of that ingredient or combination of ingredients may be used as a part of the brand name or product name if the ingredients or combination of ingredients is quantitatively guaranteed in the guaranteed analysis and the brand or product name is not otherwise false or misleading.

*d.* The word “protein” shall not be permitted in the product name of a feed that contains added nonprotein nitrogen.

*e.* When the name carries a percentage value, it shall be understood to signify protein or equivalent protein content only, or both, even though it may not explicitly modify the percentage with the word “protein,” provided, that other percentage values may be permitted if they are followed by the proper description and conform to good labeling practice. Digital numbers shall not be used in such a manner as to be misleading or confusing to the customer.

*f.* Single-ingredient feeds shall have a product name in accordance with the designated definition of feed ingredients as recognized by the Association of American Feed Control Officials unless the secretary designates otherwise.

*g.* The word “vitamin,” or a contraction thereof, or any word suggesting “vitamin” can be used only in the name of a feed which is represented to be a vitamin supplement, and which is labeled with the minimum content of each vitamin declared, as specified in 41.4(3).

*h.* The term “mineralized” shall not be used in the name of a feed except for “TRACE MINERALIZED SALT.” When so used, the product must contain significant amounts of trace minerals which are recognized as essential for animal nutrition.

*i.* The term “meat” and “meat by-products” shall 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 and goats.

**41.3(2)** If a drug is used:

*a.* The word “medicated” shall appear directly following and below the product name in type size no smaller than one-half the type size of the product name.

*b.* Purpose statement as required in 41.3(3).

*c.* The purpose of medication (claim statement).

*d.* An active ingredient statement listing the active drug ingredients by their established name and the amounts in accordance with 41.4(4).

**41.3(3) Purpose statement.**

*a.* The statement of purpose shall contain the specific species and animal class(es) for which the feed is intended as defined in 41.3(4).

*b.* The manufacturer shall have flexibility in describing in more specific and common language the defined animal class, species and purpose while being consistent with the category of animal class defined in 41.3(4) which may include, but is not limited to, weight range(s), sex, or ages of the animal(s) for which the feed is manufactured.

*c.* The purpose statement may be excluded from the label if the product name includes a description of the species and animal class(es) for which the product is intended.

*d.* 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 and premix specifications are provided by the end user of the premix. (This paragraph is applicable to commercial feeds regulated under 41.3(4) "j"(2) "10.")

*e.* 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. (This paragraph is applicable to commercial feeds regulated under 41.3(4) "j"(2) "10.")

*f.* The purpose statement of a product shall include a statement of enzyme functionality if enzymatic activity is represented in any manner.

**41.3(4) Guarantees.** Crude protein, equivalent crude protein from nonprotein nitrogen, amino acids, crude fat, crude fiber, acid detergent fiber, calcium, phosphorus, salt, and sodium shall be the sequence of nutritional guarantees when such guarantee is stated. Other required and voluntary guarantees should follow in a general format such that the units of measure used to express guarantees (e.g., percentage, parts per million, international units) are listed in a sequence that provides a consistent grouping of the units of measure.

*a.* Required guarantees for swine formula feeds.

(1) Animal classes.

1. Pre-starter - 2 to 11 pounds.
2. Starter - 11 to 44 pounds.
3. Grower - 44 to 110 pounds.
4. Finisher - 110 to 242 pounds (market).
5. Gilts, sows and adult boars.
6. Lactating gilts and sows.

(2) Guaranteed analysis for swine complete feeds and supplements (all animal classes).

1. Minimum percentage of crude protein.
2. Minimum percentage of lysine.
3. Minimum percentage of crude fat.
4. Maximum percentage of crude fiber.
5. Minimum and maximum percentage of calcium.
6. Minimum percentage of phosphorus.
7. Minimum and maximum percentage of salt (if added).
8. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
9. Minimum selenium in parts per million (ppm).
10. Minimum zinc in parts per million (ppm).

*b.* Required guarantees for formula poultry feeds (broilers, layers and turkeys).

(1) Animal classes.

1. Layer - chickens that are grown to produce eggs for food, e.g., table eggs.
    - Starting/growing - from day of hatch to approximately 10 weeks of age.
    - Finisher - from approximately 10 weeks of age to time first egg is produced (approximately 20 weeks of age).
      - Laying - from time first egg is laid throughout the time of egg production.
      - Breeders - chickens that produce fertile eggs for hatch replacement layers to produce eggs for food, e.g., table eggs, from time first egg is laid throughout their productive cycle.
  2. Broilers - chickens that are grown for human food.
    - Starting/growing - from day of hatch to approximately 5 weeks of age.
    - Finisher - from approximately 5 weeks of age to market (42 to 52 days).
    - Breeders - hybrid strains of chickens whose offspring are grown for human food (broilers), any age and either sex.
  3. Broilers, breeders - chickens whose offspring are grown for human food (broilers).
    - Starting/growing - from day of hatch until approximately 10 weeks of age.
    - Finishing - from approximately 10 weeks of age to time first egg is produced (approximately 20 weeks of age).
      - Laying - fertile egg producing chickens (broilers/roasters) from day of first egg throughout the time fertile eggs are produced.
  4. Turkeys.
    - Starting/growing - turkeys that are grown for human food from day of hatch to approximately 13 weeks of age (females) and 16 weeks of age (males).
    - Finisher - turkeys that are grown for human food, females from approximately 13 weeks of age to approximately 17 weeks of age; males from 16 weeks of age to 20 weeks of age (or desired market weight).
      - Laying - female turkeys that are producing eggs, from time first egg is produced, throughout the time they are producing eggs.
      - Breeder - turkeys that are grown to produce fertile eggs, from day of hatch to time first egg is produced (approximately 30 weeks of age), both sexes.
- (2) Guaranteed analysis for poultry complete feeds and supplements (all animal classes).
1. Minimum percentage of crude protein.
  2. Minimum percentage of lysine.
  3. Minimum percentage of methionine.
  4. Minimum percentage of crude fat.
  5. Maximum percentage of crude fiber.
  6. Minimum and maximum percentage of calcium.
  7. Minimum percentage of phosphorus.
  8. Minimum and maximum percentage of salt (if added).
  9. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
- c. Required guarantees for beef cattle formula feeds.
- (1) Animal classes.
    1. Calves (birth to weaning).
    2. Cattle on pasture (may be specific as to production stage, e.g., stocker, feeder, replacement heifers, brood cows, bulls).
    3. Feedlot cattle.
  - (2) Guaranteed analysis for beef complete feeds and supplements (all animal classes).
    1. Minimum percentage of crude protein.
    2. Maximum percentage of equivalent crude protein from nonprotein nitrogen (NPN) when added.
    3. Minimum percentage of crude fat.
    4. Maximum percentage of crude fiber.
    5. Minimum and maximum percentage of calcium.
    6. Minimum percentage of phosphorus.

7. Minimum and maximum percentage of salt (if added).
  8. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
  9. Minimum percentage of potassium.
  10. Minimum vitamin A, other than precursors of vitamin A, in international units per pound (if added).
- (3) Guaranteed analysis for beef mineral feeds (if added).
    1. Minimum and maximum percentage of calcium.
    2. Minimum percentage of phosphorus.
    3. Minimum and maximum percentage of salt.
    4. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
    5. Minimum percentage of magnesium.
    6. Minimum percentage of potassium.
    7. Minimum copper in parts per million (ppm).
    8. Minimum selenium in parts per million (ppm).
    9. Minimum zinc in parts per million (ppm).
    10. Minimum vitamin A, other than precursors of vitamin A, in international units per pound.
- d.* Required guarantees for dairy formula feeds.
- (1) Animal classes.
    1. Veal milk replacer - milk replacer to be fed for veal production.
    2. Herd milk replacer - milk replacer to be fed for herd replacement calves.
    3. Starter - approximately 3 days to 3 months.
    4. Growing heifers, bulls and dairy beef.
      - Grower 1 - 3 months to 12 months of age.
      - Grower 2 - more than 12 months of age.
    5. Lactating dairy cattle.
    6. Nonlactating dairy cattle.
  - (2) Guaranteed analysis for veal and herd replacement milk replacer.
    1. Minimum percentage of crude protein.
    2. Minimum percentage of crude fat.
    3. Maximum percentage of crude fiber.
    4. Minimum and maximum percentage of calcium.
    5. Minimum percentage of phosphorus.
    6. Minimum vitamin A, other than precursors of vitamin A, in international units per pound (if added).
  - (3) Guaranteed analysis for dairy cattle complete feeds and supplements.
    1. Minimum percentage of crude protein.
    2. Maximum percentage of equivalent crude protein from nonprotein nitrogen (NPN) when added.
    3. Minimum percentage of crude fat.
    4. Maximum percentage of crude fiber.
    5. Maximum percentage of acid detergent fiber (ADF).
    6. Minimum and maximum percentage of calcium.
    7. Minimum percentage of phosphorus.
    8. Minimum selenium in parts per million (ppm).
    9. Minimum vitamin A, other than precursors of vitamin A, in international units per pound (if added).
  - (4) Required guaranteed analysis for dairy mixing and pasture mineral.
    1. Minimum and maximum percentage of calcium.
    2. Minimum percentage of phosphorus.
    3. Minimum and maximum percentage of salt.

4. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
5. Minimum percentage of magnesium.
6. Minimum percentage of potassium.
7. Minimum selenium in parts per million (ppm).
8. Minimum vitamin A, other than the precursors of vitamin A, in international units per pound.
- e.* Required guarantees for equine formula feeds.
  - (1) Animal classes.
    1. Foal.
    2. Mare.
    3. Breeding.
    4. Maintenance.
  - (2) Guaranteed analysis for equine complete feeds and supplements (all animal classes).
    1. Minimum percentage of crude protein.
    2. Minimum percentage of crude fat.
    3. Maximum percentage of crude fiber.
    4. Minimum and maximum percentage of calcium.
    5. Minimum percentage of phosphorus.
    6. Minimum copper in parts per million (ppm).
    7. Minimum selenium in parts per million (ppm).
    8. Minimum zinc in parts per million (ppm).
    9. Minimum vitamin A, other than the precursors of vitamin A, in international units per pound (if added).
  - (3) Guaranteed analysis for equine mineral feeds (all animal classes).
    1. Minimum and maximum percentage of calcium.
    2. Minimum percentage of phosphorus.
    3. Minimum and maximum percentage of salt (if added).
    4. Minimum and maximum percentage of sodium shall be guaranteed only when the total sodium exceeds that furnished by the maximum salt guarantee.
    5. Minimum copper in parts per million (ppm).
    6. Minimum selenium in parts per million (ppm).
    7. Minimum zinc in parts per million (ppm).
    8. Minimum vitamin A, other than precursors of vitamin A, in international units per pound (if added).
- f.* Required guarantees for goat and sheep formula feeds.
  - (1) Animal classes.
    1. Starter.
    2. Grower.
    3. Finisher.
    4. Breeder.
    5. Lactating.
  - (2) Guaranteed analysis for goat and sheep complete feeds and supplements (all animal classes).
    1. Minimum percentage of crude protein.
    2. Maximum percentage of equivalent crude protein from nonprotein nitrogen (NPN) when added.
    3. Minimum percentage of crude fat.
    4. Maximum percentage of crude fiber.
    5. Minimum and maximum percentage of calcium.
    6. Minimum percentage of phosphorus.
    7. Minimum and maximum percentage of salt (if added).
    8. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.

9. Minimum and maximum copper in parts per million (ppm) (if added, or if total copper exceeds 20 ppm).
10. Minimum selenium in parts per million (ppm).
11. Minimum vitamin A, other than precursors of vitamin A, in international units per pound (if added).
  - g. Required guarantees for duck and geese formula feeds.
    - (1) Animal classes.
      1. Ducks.
        - Starter - 0 to 3 weeks of age.
        - Grower - 3 to 6 weeks of age.
        - Finisher - 6 weeks to market.
        - Breeder developer - 8 to 19 weeks of age.
        - Breeder - 22 weeks to end of lay.
      2. Geese.
        - Starter - 0 to 4 weeks of age.
        - Grower - 4 to 8 weeks of age.
        - Finisher - 8 weeks to market.
        - Breeder developer - 10 to 22 weeks of age.
        - Breeder - 22 weeks to end of lay.
    - (2) Guaranteed analysis for duck and geese complete feeds and supplements (for all animal classes).
      1. Minimum percentage of crude protein.
      2. Minimum percentage of crude fat.
      3. Maximum percentage of crude fiber.
      4. Minimum and maximum percentage of calcium.
      5. Minimum percentage of phosphorus.
      6. Minimum and maximum percentage of salt (if added).
      7. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
  - h. Required guarantees for fish complete feeds and supplements.
    - (1) Animal species shall be declared in lieu of animal class.
      1. Trout.
      2. Catfish.
      3. Species other than trout or catfish.
    - (2) Guaranteed analysis for all fish complete feeds and supplements.
      1. Minimum percentage of crude protein.
      2. Minimum percentage of crude fat.
      3. Maximum percentage of crude fiber.
      4. Minimum percentage of phosphorus.
  - i. Required guarantees for rabbit complete feeds and supplements.
    - (1) Animal classes.
      1. Grower - 4 to 12 weeks of age.
      2. Breeder - 12 weeks of age and over.
    - (2) Guaranteed analysis for rabbit complete feeds and supplements (all animal classes).
      1. Minimum percentage of crude protein.
      2. Minimum percentage of crude fat.
      3. Minimum and maximum percentage of crude fiber (the maximum crude fiber shall not exceed the minimum by more than 5.0 units).
      4. Minimum and maximum percentage of calcium.
      5. Minimum percentage of phosphorus.
      6. Minimum and maximum percentage of salt (if added).
      7. Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.

8. Minimum vitamin A, other than precursors of vitamin A, in international units per pound (if added).

*j.* The required guarantees of grain mixtures with or without molasses and feeds other than those described in 41.3(4) “*a*” to “*i*” shall include the following items, unless exempted in paragraph “*k*,” in the order listed:

- (1) Animal class(es) and species for which the product is intended.
- (2) Guaranteed analysis.
  1. Minimum percentage of crude protein.
  2. Maximum or minimum percentage of equivalent crude protein from nonprotein nitrogen as required in 41.4(5).
  3. Minimum percentage of crude fat.
  4. Maximum percentage of crude fiber.
  5. Minerals in formula feeds, to include in the following order:
    - Minimum and maximum percentage of calcium.
    - Minimum percentage of phosphorus.
    - Minimum and maximum percentage of salt (if added).
    - Minimum and maximum percentage of total sodium shall be guaranteed only when total sodium exceeds that furnished by the maximum salt guarantee.
    - Other minerals.
  6. Minerals in feed ingredients - as specified by the official definitions of the Association of American Feed Control Officials.
  7. Vitamins in such terms as specified in 41.4(3).
  8. Total sugars as invert on dried molasses products or products being sold primarily for their sugar content.
  9. Viable lactic acid-producing microorganisms for use in silages in terms specified in 41.4(7).
  10. A commercial feed (e.g., vitamin/mineral premix, base mix) 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 such stated purpose. Article II of AAFCO’s “Criteria for Labeling Nutritional Indicators” is not applicable to the label guarantees for these specialized commercial feeds.

*k.* Exemptions.

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

1. 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
2. The feed or feed ingredient is intended for non-food-producing animals and contains less than 6.5 percent total mineral.

(2) Guarantees for vitamins are not required when 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 when the commercial feed is intended for purposes other than to furnish these substances or they 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 these substances or they are of minor significance relating to the primary purpose of the product, and no specific label claims are made.

(5) The indication for animal class(es) and species is not required on single-ingredient products if the ingredient is not intended, represented, or defined for a specific animal class(es) or species.

**41.3(5)** Feed ingredients, collective terms for the grouping of feed ingredients, or appropriate statements as provided under the provisions of Iowa Code section 198.5(1) “*d*.”

*a.* The name of each ingredient as defined in the official publication of the Association of American Feed Control Officials, common or usual name, or one approved by the secretary.



*b.* Collective terms 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) When a collective term for a group of ingredients is used on the label, individual ingredients within that group shall not be listed on the label.

(2) The manufacturer shall provide the feed control official, 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.

*c.* The registrant may affix the statement “Ingredients as registered with the state” in lieu of ingredient list on the label. The list of ingredients must be on file with the secretary. This list shall be made available to the feed purchaser upon request.

**41.3(6)** Directions for use and precautionary statements or reference to their location if the detailed feeding directions and precautionary statements required by 21—41.7(198) and 21—41.8(198) appear elsewhere on the label.

**41.3(7)** Name and principal mailing address of the manufacturer or person responsible for distributing the feed. The principal mailing address shall include the street address, city, state, and ZIP code; however, the street address may be omitted if it is shown in the current city directory or telephone directory.

**41.3(8)** Quantity statement.

#### **21—41.4(198) Expression of guarantees.**

**41.4(1)** The guarantees for crude protein, equivalent crude protein from nonprotein nitrogen, lysine, methionine, other amino acids, crude fat, crude fiber and acid detergent fiber shall be in terms of percentage.

**41.4(2)** Mineral guarantees.

*a.* When the calcium, salt, and sodium guarantees are given in the guaranteed analysis, such shall be stated and conform to the following:

(1) When the minimum is below 2.5 percent, the maximum shall not exceed the minimum by more than 0.5 percentage point.

(2) When the minimum is 2.5 percent but less than 5.0 percent, the maximum shall not exceed the minimum by more than one percentage point.

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

*b.* When stated, guarantees for minimum and maximum total sodium and salt: minimum potassium, magnesium, sulfur, and phosphorus and maximum fluoride shall be in terms of percentage. Other minimum mineral guarantees shall be stated in parts per million (ppm) when the concentration is less than 10,000 ppm and in percentage when the concentration is 10,000 ppm (1 percent) or greater.

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

**41.4(3)** Guarantees for minimum vitamin content of commercial feeds shall be listed in the order specified and are stated in mg/lb or in units consistent with those employed for the quantity statement unless otherwise specified:

*a.* Vitamin A, other than precursors of vitamin A, in international units per pound.

*b.* Vitamin D<sub>3</sub> in products offered for poultry feeding, in international chick units per pound.

*c.* Vitamin D for other uses, in international units per pound.

*d.* Vitamin E, in international units per pound.

*e.* Concentrated oils and feed additive premixes containing vitamin A, D or E, or a combination of all three, may, at the option of the distributor, be stated in units per gram instead of units per pound.

*f.* Vitamin B<sub>12</sub>, in milligrams or micrograms per pound.

g. All other vitamin guarantees shall express the vitamin activity in milligrams per pound in terms of the following: menadione, riboflavin, d-pantothenic acid, thiamine, niacin, vitamin B<sub>6</sub>, folic acid, choline, biotin, inositol, p-amino benzoic acid, ascorbic acid, and carotene.

**41.4(4)** Guarantees for drugs shall be stated in terms of percent by weight, except:

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

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

c. Labels for commercial feeds containing growth promotion or feed efficiency levels of antibiotics, or both, which are to be fed continuously as the sole ration, are not required to make quantitative guarantees except as specifically noted in the federal food additive regulations for certain antibiotics, wherein, 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 in those cases where a dosage is given in "milligrams" in the feeding directions.

**41.4(5)** Commercial feeds containing any added nonprotein nitrogen shall be labeled as follows:

a. For ruminants.

(1) Complete feeds, supplements, and concentrates containing added nonprotein nitrogen and containing more than 5 percent protein from natural sources shall be guaranteed as follows:

1. Crude protein, minimum, \_\_\_\_\_ %

2. (This includes not more than \_\_\_\_\_ % equivalent crude protein from nonprotein nitrogen.)

(2) Mixed feed concentrates and supplements containing less than 5 percent protein from natural sources may be guaranteed as follows:

Equivalent crude protein from nonprotein nitrogen, minimum, \_\_\_\_\_ %

(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 shall be guaranteed as follows:

1. Nitrogen, minimum, \_\_\_\_\_ %

2. Equivalent crude protein from nonprotein nitrogen, minimum, \_\_\_\_\_ %

b. For nonruminants.

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

1. Crude protein, minimum, \_\_\_\_\_ %

2. (This includes not more than \_\_\_\_\_ % 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.

**41.4(6)** Mineral phosphatic materials for feeding purposes shall 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.

**41.4(7)** Guarantees for microorganisms shall 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 shall list each species in order of predominance.

**41.4(8)** Guarantees for enzymes shall 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 shall be specified, such as: protease (bacillus subtilis) 5.5 mg amino acids liberated/min./milligram. If two or more sources have the same type of activity, they shall be listed in order of predominance based on the amount of enzymatic activity provided.

**21—41.5(198) Suitability.**

**41.5(1)** The nutritional content of commercial feed shall be as purported or is represented to possess by its labeling. Such animal feed, its labeling and intended use must be suitable for the intended purpose of the product.

**41.5(2)** Commercial feeds for swine, poultry, and fish, and milk replacer for veal calves and herd replacement calves, when fed according to directions, must meet the nutritional requirements established by:

*a.* The committee on animal nutrition of the National Research Council of the National Academy of Sciences, or

*b.* A signed affidavit attesting to the nutritional adequacy of the feed based upon valid scientific evidence. Such affidavit shall be submitted to the secretary upon request.

(1) An affidavit certifying the feed sponsor has valid scientific knowledge which ensures suitability of the nutritional content of the feed product shall be submitted to the secretary only when the suitability of a product is challenged.

(2) Submission of a completed “Affidavit of Suitability” shall serve as proof of suitability and therefore the feed sponsor shall not be required to provide scientific information nor any reference thereto unless the secretary has reason to believe that such product is not suitable for its intended use. In such case the secretary shall have the authority to conduct a hearing pursuant to 21—subrule 2.2(5), Iowa Administrative Code, requiring the feed sponsor to produce sufficient scientific and other evidence of the product’s suitability.

(3) Upon receipt of a completed “Affidavit of Suitability,” the feed sponsor may continue to market the product. When such affidavit is not adequately submitted, the secretary may continue to withdraw the feed from distribution and order its removal from the marketplace as well as all other feeds manufactured or distributed under the same product name.

(4) The affidavit of suitability shall contain the following information:

1. The feed company’s name;

2. The feed’s product name;

3. The name and title of the affiant submitting the document;

4. The statement that the affiant has knowledge of the nutritional content of the listed feed product and is familiar with the nutritional requirements for the animal species and animal class(es) for which the product is intended as established by the National Research Council of the National Academy of Sciences;

5. The statement that the affiant has knowledge of valid scientific evidence that supports the suitability of the product for the intended animal species and animal class(es) for which the feed is intended;

6. The date of submission; and

7. The signature of the affiant notarized by a certified notary public.

**21—41.6(198) Ingredients.**

**41.6(1)** The name of each ingredient or collective term for the grouping of ingredients, when required to be listed, shall be the name as defined in the official definitions of feed ingredients as published in the official publication of the Association of American Feed Control Officials, the common or usual name, or one approved by the secretary.

**41.6(2)** The name of each ingredient must be shown in letters or type of the same size.

**41.6(3)** No reference to quality or grade of an ingredient shall appear in the ingredient statement of a feed.

**41.6(4)** The term “dehydrated” may precede the name of any product that has been artificially dried.

**41.6(5)** A single ingredient product defined by the Association of American Feed Control Officials is not required to have an ingredient statement.

**41.6(6)** Tentative definitions for ingredients shall not be used until adopted as official, unless no official definition exists or the ingredient has a common accepted name that requires no definition (e.g., sugar).

**41.6(7)** When the word “iodized” is used in connection with a feed ingredient, the feed ingredient shall contain not less than 0.007 percent iodine, uniformly distributed.

**21—41.7(198) Directions for use and precautionary statements.**

**41.7(1)** 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 described by all applicable regulations under the Federal Food, Drug and Cosmetic Act.

**41.7(2)** Adequate directions for use and precautionary statements are required for feeds containing nonprotein nitrogen as specified in 21—41.8(198).

**41.7(3)** 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.

**21—41.8(198) Nonprotein nitrogen.**

**41.8(1)** 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 shall bear adequate directions for the safe use of feeds and a precautionary statement “CAUTION: USE AS DIRECTED.” The directions for use and the caution statement shall be in type of such size so placed on the label that the directions will be read and understood by ordinary persons under customary conditions of purchase and use.

**41.8(2)** Nonprotein nitrogen defined in the official publication of the Association of American Feed Control Officials, when so indicated, is an acceptable ingredient 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 when used in nonruminant rations shall not exceed 1.25 percent of the total daily ration.

**41.8(3)** On labels such as those for medicated feeds which bear adequate feeding directions or warning statements, or both, 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.

**21—41.9(198) Drug and feed additives.**

**41.9(1)** Prior to approval of a product label for commercial feed which contains additives (including drugs, other special purpose additives, or nonnutritive additives), the distributor may be required to submit evidence to prove the safety and efficacy of the commercial feed when used according to the directions furnished on the label.

**41.9(2)** Satisfactory evidence of safety and efficacy of a commercial feed may be:

*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” or “informal review sanctioned” or “generally recognized as safe” for such use, or

*b.* When the commercial feed is itself a drug as defined in Iowa Code section 198.3(6) 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 Title 21 U.S.C. 360(b), or

*c.* When one of the purposes for feeding a commercial feed is to impart immunity (that is to act through some immunological process) the constituents imparting immunity have been approved for the purpose through the Federal Virus, Serum and Toxins Act of 1913, as amended, or

*d.* When the commercial feed is a direct-fed microbial product and:

(1) The product meets the particular fermentation product definition; and

(2) The microbial content statement, as expressed in the labeling, is limited to the following: “Contains a source of live (viable) naturally occurring microorganisms.” This statement shall appear on the label; and

(3) The source is stated with a corresponding guarantee expressed in accordance with 41.4(7).

*e.* When the commercial feed is an enzyme product and:

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

(2) The enzyme is stated with a corresponding guarantee expressed in accordance with 41.4(8).

#### **21—41.10(198) Adulterants.**

**41.10(1)** For the purpose of Iowa Code section 198.7, 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 0.03 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 of grain, that result 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 B<sub>1</sub> (thiamine).

**41.10(2)** All screenings or by-products of grains and seeds containing weed seeds, when used in commercial feed or sold as such to the ultimate consumer, shall be ground fine enough or otherwise treated to destroy the viability of such weed seeds so that the finished product contains no viable prohibited weed seeds per pound and not more than 1½ percent by weight of viable restricted weed seeds.

**21—41.11(198) Good manufacturing practices.** For the purposes of enforcement of Iowa Code section 198.7(4), the secretary adopts the following as current, good manufacturing practices:

**41.11(1)** The regulations prescribing good manufacturing practices for Type B and Type C medicated feeds as published in the Code of Federal Regulations, Title 21, Part 225, Sections 225.1 to 225.202.

**41.11(2)** The regulations prescribing good manufacturing practices for Type A medicated articles as published in the Code of Federal Regulations, Title 21, Part 226, Sections 226.1 to 226.115.

**21—41.12(198) Cottonseed product control.** Every shipment of whole cottonseed being sold in Iowa for animal feed use shall either be accompanied by a laboratory analysis for aflatoxin B1 and the distributor shall provide the laboratory analysis with the bill of lading or invoice to the first purchaser of the whole cottonseed being sold for animal feed use or the shipment shall be tested by the first purchaser. The first purchaser shall provide a copy of the laboratory analysis to each subsequent purchaser. The whole cottonseed being sold for animal feed use must meet all livestock feeding guidelines established by the Food and Drug Administration regarding aflatoxin B1. Whole cottonseed sold for animal feed

use which does not meet the guidelines established by the Food and Drug Administration will be considered adulterated under the provisions of Iowa Code section 198.7.

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