

STATE OF WASHINGTON  
**FILED**  
MAR 22 1960  
CODE REVISER'S OFFICE  
DOCKET # 38 FILE # 4

STATE OF WASHINGTON  
DEPARTMENT OF AGRICULTURE  
Sverre N. Omdahl, Director

DIVISION OF FEEDS & FERTILIZERS  
Thomas A. Carter, Supervisor

ORDER NO. 591

Relating to concentrated commercial feeding stuffs for rabbits, sheep, chinchilla and goats, and amending Regulation No. 58 of Order No. 453, to read as follows:

Concentrated commercial feeding stuffs which are used exclusively in the feeding of rabbits, sheep, chinchilla or goats and which are plainly labeled as being for that purpose only may contain a fiber content not exceeding 20%.

Dated at Olympia, Washington this 3rd day of January, 1951.

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Original Signed by  
Sverre N. Omdahl  
Director of Agriculture

\_\_\_\_\_  
Original Signed by  
Thomas A. Carter  
Supervisor

STATE OF WASHINGTON  
DEPARTMENT OF AGRICULTURE  
Sverre N. Omdahl, Director

DIVISION OF FEEDS & FERTILIZERS  
Walter R. Johnson, Supervisor

ORDER NO. 599

Relating to Malt Sprouts, and amending Regulation No. 39-B of Order No. 453, to read as follows:

Malt Sprouts is the product obtained by the removal of the sprouts from malted barley together with the malt hulls, other parts of malt and foreign material unavoidably present. It shall contain not less than 20 per cent of protein. The term "Malt Sprouts" when applied to a corresponding portion of other malted cereals shall be used in qualified form, as for example: "Rye Malt Sprouts," "Wheat Malt Sprouts," etc.

Dated at Olympia, Washington this 2nd day of May, 1951.

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Original Signed by  
Sverre N. Omdahl  
Director of Agriculture

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Original Signed by  
Walter R. Johnson  
Supervisor

STATE OF WASHINGTON  
**FILED**

MAR 22 1960

CODE REVISER'S OFFICE  
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STATE OF WASHINGTON  
DEPARTMENT OF AGRICULTURE  
Division of Feeds and Fertilizers

Olympia

ORDER NO. 629

(Amending Order No. 453)

Effective July 15, 1952

REGULATION CONCERNING FIBRE CONTENTS OF BY-PRODUCTS

I, Sverre N. Omdahl, Director of the Washington State Department of Agriculture, by virtue of the authority vested in me by section 36, of Chapter 211, Laws of 1939, as last amended by section 3, Chapter 167, Laws of 1949, amend Regulation No. 62, as contained in Order No. 453, relating to the fibre contents of by-products, to read as follows:

Regulation 62. Oat mill feed, beet pulp, fruit by-products, brewers' or distillers' spent grains, barley malt sprouts, cotton seed meal, linseed meal, coconut meal, soya bean tailings, hemp seed meal and alfalfa leaves and blossoms may be sold singly, or when mixed with molasses, without limitation of fibre content; and they may also be included as ingredients of concentrated commercial feeding stuffs, but only within the fibre and other limitations prescribed by Chapter 211, Laws of 1939, applying to concentrated commercial feeding stuffs.

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Original Signed by  
Sverre N. Omdahl,  
Director of Agriculture

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Original Signed by  
Walter R. Johnson  
Supervisor

Signed at Olympia, Washington  
July 9, 1952

DEPARTMENT OF AGRICULTURE

Joe Dwyer, Director

Olympia

DIVISION OF AGRICULTURE AND MARKETING

Order No. 779

Effective August 1, 1958

I, Joe Dwyer, Director of Agriculture, State of Washington, after due notice and public hearing held on July 24, 1958, in Olympia, Washington, and by virtue of the authority vested in me by Chapter 80, Laws of 1953, and Chapter 15.53, RCW, Washington Commercial Feed Law of 1953, do hereby amend Regulation 9.

Regulation 9, which reads as follows:

UREA. (a) The use of urea and ammonium salts of carbonic and phosphoric acids as ingredients in feeds is considered an adulteration except for cattle, sheep and goat feeds wherein it may be used in such limited quantities as to insure that the total amount present shall not constitute the equivalent of more than one third of the total protein in the commercial feed, and providing that the following statement of guaranty of crude protein for feed containing these materials shall be used: Crude protein, not less than.....per cent. (This includes not more than.....per cent equivalent crude protein from non protein nitrogen.)

(b) If a feed contains more than 3 per cent urea the label shall bear a statement of proper usage, and the following in type of such conspicuousness as to render it likely to be read and understood by ordinary individuals under customary conditions of purchase and use.

**WARNING:** This feed should be used only in accordance with directions furnished on the label.

is hereby amended to read:

UREA. (a) Urea and ammonium salts of carbonic and phosphoric acids are acceptable ingredients in proprietary cattle, sheep and goat feeds only; these materials shall be considered adulterants in proprietary feeds for other animals and birds; the maximum percentage of equivalent protein from non-protein nitrogen must appear immediately below crude protein in the chemical guarantee; and the name of the substance supplying the non-protein nitrogen must appear in the ingredient list. If feed contains more than 3 per cent of urea, or if the equivalent protein contributed by urea exceeds one-third of the total crude protein, the label shall bear (1) a statement of proper usage and (2) the following statement in type of such conspicuousness as to render it likely to be read and understood by ordinary individuals under customary conditions of purchase and use:

**WARNING:** This feed should be used only in accordance with directions furnished on the label.

STATE OF WASHINGTON  
**FILED**  
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*Joe Dwyer*  
JOE DWYER  
Director of Agriculture  
State of Washington

Signed at Olympia, Washington

July 25, 1958

STATE OF WASHINGTON  
DEPARTMENT OF AGRICULTURE  
Fred J. Martin, Director

Division of Feeds, Fertilizers & Livestock Remedies  
Milo M. Palmer, Supervisor

ORDER NO. 453

Effective March 1, 1946

STATE OF WASHINGTON  
**FILED**  
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I, Fred J. Martin, Director of Agriculture, by virtue of authority vested in me in Section 9 of Chapter 211, Laws of 1939, do promulgate the following Rules and Regulations relating to Definitions and Standards for Feeds and Fertilizers.

**REGULATION 1. Registration of Brands and Guarantees.**

In submitting guarantees for registration, the guaranty in all cases, must be an exact copy of the label on the package.

**REGULATION 2. Labels required on all packages.**

Each package of feed must bear a complete label. The label must be printed on one side of a tag attached to the package, or upon one side of the package itself. In either case, the label must be clear and distinct, in type of sufficient size to be easily read.

**REGULATION 3. Label Forms.**

The information required to be supplied by labels must be given in a definite and uniform manner.

The "sliding scale" method of expressing guaranties, e. g., "Protein \_\_\_\_\_ 15-18%," etc., is prohibited.

No advertising of any kind shall be printed on the label.

Type of label for mixed feeds in general:

100 lbs. Net	
EXCELSIOR DAIRY FEED	
Manufactured by (or for)	
JOHN DOE FEED MILLS	
Olympia, Washington	
-----	
Guaranteed Analysis:	
Crude Protein, not less than	_____ Per Cent
Crude Fat, not less than	_____ Per Cent
Crude Fibre, Not MORE than	_____ Per Cent
Crude Ash, Not MORE than	_____ Per Cent
Moisture, Not MORE than	_____ Per Cent
INGREDIENTS: Corn gluten feed, Cottonseed meal, linseed oil meal, wheat bran, wheat brown shorts, ground corn, alfalfa meal, and oat mill feed, (oat hulls, oat shorts, oat middlings).	

**REGULATION 4. Net Weight.**

Each package of feed must show the net weight of the feed in the package, either stenciled or printed on the bag or on a tag attached thereto. See Page , Section 34 & 35 relative to Standard Sack:

Such statements as "99 pounds net," "100 pounds gross," "100 pounds when packed," etc. are prohibited.

**REGULATION 5. Guaranties, changes in, after registration.**

A guaranty and label for a brand of feed having been registered may not be subsequently modified in a way that permits the lowering of the quality of the feed, unless it can be clearly shown that the modification sought to be made is consistent with the interest of the feeder.

It is provided, however, that the ingredients of a feed mixture may be changed after registration on presentation of satisfactory reasons if such a change does not necessitate a lowering of the guaranteed analysis or quality of the feed.

**REGULATION 6. Registration, general application of.**

A guaranty registered by a manufacturer or jobber for a brand of feed is held to apply to such a brand, even though manufactured at or shipped from more than one point.

When a guaranty and label have been registered by a manufacturer or by a jobber, no registration shall be required of other sellers of the brand so registered, provided shipments thereof are labeled in accordance with the law and regulations.

**REGULATION 7. Registration, Cancellation.**

The following causes are held to be sufficient to justify the cancellation of registration:

- (a) When the brand name of the feed is found to be misleading in any respect.
- (b) When found to contain an injurious ingredient.
- (c) When packages are incorrectly labeled with regard to ingredients.
- (d) When the analyses of samples establish the fact of misbranding or adulteration.
- (e) When labels on packages contain any statement, design or device which tends to mislead the purchaser.

**REGULATION 8. Brand Names, duplication of or infringement on.**

A brand name is distinctive with reference to the feed to which it applies, and the registration of feeds under the same brand name by two or more manufacturers or shippers shall be discouraged. This regulation applies also to the registration of brand names so similar in character as to be likely to be confused by the purchaser.

**REGULATION 9. Brand Names.**

The name of a brand must not tend to mislead the purchaser with respect to any quality of the feed. If the brand name indicates that the feed is made for a specific use, the character of the feed must conform therewith. A mixture labeled "dairy feed," for example, must be adapted for that purpose.

A brand name may not be derived from a single ingredient of a mixture. A distinctive name shall not be one representing any single component of a mixture.

**REGULATION 10. Ingredients' statement.**

The following regulations apply to the statement of ingredients on labels and on registration:

- (a) Each and every ingredient in the feed mixture must be stated; see Paragraph (e) in Regulation 7.
- (b) The common English names of ingredients are to be used.

REGULATION 11. Inert Mineral Matter and Charcoal in Feeds.

In the case of feeds containing inert grit, other added inert mineral matter or charcoal, the words "with grit," "with charcoal," etc. must occur in the brand name, and in the statement of ingredients the kind and amount of grit or other added inert mineral matter, charcoal, etc., must be given; provided that no more than a total of five per cent of grit, charcoal, or other inert mineral ingredients, separately or together, may be present in any feed other than in the so-called mineral feed mixtures.

Inert materials are materials that do not contribute dietary factors.

REGULATION 12. Ingredients, improper or incomplete designation of.

Each ingredient must be specifically named. Such general statements as "corn products," "wheat products," "grain screenings," "miscellaneous seeds," "mixed bran," "wheat mill by-products," "corn mill by-products," etc. may not be used, but each and every ingredient must be designated in such a way that the purchaser may be completely informed by the label of the components of the feed mixture.

The words "bran," "brown shorts," "gray shorts," and "white shorts" refer to wheat bran and wheat shorts. "Rice shorts," "corn shorts," "mixed shorts," etc. are incorrect designations.

Such terms as "mill run bran" and "mill run shorts" cannot be used to refer to a mixture of wheat bran and wheat shorts.

A mixture of wheat bran and corn bran cannot be labeled "bran;" the proper designation is "wheat bran and corn bran." Corn chops containing added bran or other ingredients cannot be sold as corn chops.

REGULATION 13. Labels for wheat bran and wheat shorts containing screenings.

The admixture of any proportion of wheat screenings requires a declaration to that effect in the brand name and in type of the same size. For example:

- (a) Wheat Bran and Ground Wheat Screenings not exceeding Mill Run, or ( ) per cent.
- (b) Wheat Gray Shorts with Ground Wheat Screenings not exceeding Mill Run, or ( ) per cent.

REGULATION 14. Labels, declaration regarding screenings.

When any proportion whatever of screenings is used in a mixture, the label must state specifically the source and conditions of each and every kind of screenings so used. Indefinite names such as "grain screenings," "miscellaneous seeds," "field seeds," will not be accepted as proper designations.

Screenings must not contain any seed or other product injurious to animals, and, except in poultry feeds, must be ground fine enough in all cases to destroy the viability of the seeds contained therein. Manufacturers are warned that screenings must not contain a sufficient proportion of mustard seed to be injurious or fatal.

REGULATION 15. Private tags or printed matter on or with packages.

No printed or written matter or design of any kind shall be attached to or appear on or be packed with feed, if such matter contains any statement which is incorrect, or which is at variance in any respect with the information on the principal label.

REGULATION 16. Use of preservatives.

No added preservatives of any kind may be used in the manufacture of a feed until its use, and the condition of its use, shall have been approved by the Director of Agriculture.

REGULATION 17. Reports of inspections and analyses when deficiencies or other irregularities occur.

- A. If the analysis of an inspector's sample of a shipment shows a deficiency with respect to the amounts of fat and protein, or an excess of fiber as compared with the label and guarantee; if the statement of ingredients is incomplete or inaccurate, or if the shipment is found to be sold or offered for sale in violation of any requirement of the law or regulation, the guarantor or person responsible for the sale of the feed and the dealer shall be fully informed regarding the objection found and shall be given ten days in which to submit a written explanation unless, in the judgment of the Director, immediate action is necessary.
- B. The dealer may be instructed to discontinue the sale of the shipment in question until a decision has been reached with reference to the proper disposition of it under the laws and regulations in force.

REGULATION 18. Resampling Shipments

Shipments of feed may be inspected and sampled a second time at the request of the guarantor if, in the discretion of the Director, substantial reason exists therefor.

REGULATION 19. Mineral Feeds.

Mixed feeds containing both feed and more than 5 per cent of mineral ingredients require, in addition to the usual declaration of the chemical feed analysis, a declaration of each ingredient contained therein and the minimum percentages of calcium (Ca), Phosphorus (P), iodine (I) and the maximum percentage of salt (NaCl) if same be present. If minerals predominate in the mixture, the usual declaration of the chemical feed analysis, with the exception of protein, may be omitted.

In mineral feeds for which no nutritional properties other than those of a mineral nature are claimed, the usual chemical guarantees need not be declared. A declaration should be made of each ingredient contained therein and the minimum percentage of calcium (Ca), phosphorus (P), iodine (I) and the maximum percentage of salt (NaCl) if same be present.

The mineral ingredients should be stated in the common English terms, if any such terms exist.

- A. It being impossible to classify separately the drug ingredients and the mineral ingredients, all mixtures containing mineral ingredients generally regarded as dietary factors essential for the normal nutrition of animals and which are sold or represented for the primary purpose of supplying these minerals as additions to rations in which these same mineral factors may be deficient, be classified as mineral feeds.
- B. All other preparations which are sold or represented primarily for the cure, mitigation or prevention of disease are classified as drugs, medicines or specifics.

REGULATION 20.

The term "defluorinated" shall not be used in connection with the name of any product containing more than one part of fluorine (F) to forty parts of phosphorus (P).

REGULATION 21.

When the word "Iodized" is used in connection with a feed ingredient, the ingredient shall contain not less than 0.007 per cent of iodine, uniformly distributed.

REGULATION 22.

"Defluorinated Phosphate" includes either calcined, fused or precipitated calcium phosphate which contains not more than one part of fluorine (F) to forty parts of phosphorus (P). The minimum percentage of calcium (Ca) and phosphorus (P) and the maximum percentage of fluorine (F) shall be stated on the label.



REGULATION 23.

The "Fluorine Content" of any mineral or mineral mixtures which are to be used directly for the feeding of domestic animals shall not exceed 0.30 per cent for cattle; 0.35 per cent for sheep; 0.45 per cent for swine, and 0.60 per cent for poultry.

Rock phosphate or other fluorine bearing ingredients may be used only in such limited amounts in feeding stuffs so that they will not raise the fluorine of the total concentration of the (grain) ration above the following amounts: for cattle 0.009 per cent of fluorine; for sheep 0.010 per cent of fluorine; for swine 0.014 per cent of fluorine; and for poultry 0.035 per cent of fluorine.

REGULATION 24.

"Limestone Products," "Shell Products," and other products composed principally of calcium carbonate, and sold as calcium supplements, shall be registered and labeled to show the minimum percentage of calcium, and the maximum percentage of magnesium.

REGULATION 25.

The term "Nitrogen Free Extract" is understood to cover the product indicated by the percentage obtained by subtracting from 100 per cent the sum of the percentages of Ash, Moisture, Protein, Fat and Fibre. These elements must be declared separately and individually in the guaranteed analysis on both the tag used on the product and the application for registration of the product.

There is no objection to the use of the "Nitrogen Free Extract" declaration as an optional statement on either or both tag and application.

REGULATION 26.

The term "Carbohydrates" may only be used on the tags and applications as an optional declaration since the term is interpreted to cover the product indicated by the percentage obtained by the addition of percentages of crude fibre and nitrogen free extract.

REGULATION 27.

A ton of feed shall consist of two thousand (2000) pounds net weight.

REGULATION 28.

Used sacks may not be used for the resale of feeds unless all stenciled and printed matter is removed from the sacks, or the sacks are turned inside out so that the original stenciling or printed matter will not be displayed.

REGULATION 29.

The term "Degermed" must precede the name of any product from which the germ has been wholly or partially removed.

REGULATION 30.

All material sold primarily as a Vitamin D Supplement for poultry shall be labeled with a minimum guarantee of Vitamin D potency expressed as Association of Official Agricultural Chemists' chick units of Vitamin D per gram, determined according to the tentative procedure adopted by the Association of Official Agricultural Chemists and assuming that one U. S. P. unit of vitamin D in the U. S. Pharmacopoeia "Reference Cod Liver Oil" equal one Association of Official Agricultural Chemists' chick unit.

REGULATION 31.

Urea and ammonium salts of carbonic acid are acceptable ingredients in proprietary cattle, sheep and goat feeds only, and these materials are considered to be adulterants in proprietary feeds for other animals and birds. When urea is used as an ingredient in feeds for cattle, sheep and goats, it may not exceed 3 per cent of the (grain) ration, and if used, the following statement as the guarantee of the crude protein for feeds containing these materials must be used, "Crude Protein Not Less than \_\_\_ per cent. (This includes not more than \_\_\_ per cent, equivalent crude protein from non-protein nitrogen.)"

Urea may also be used in poultry feeds where it is included with other materials as a claimed aid for the mitigation of poultry diseases, but no consideration is to be given to this added urea as to guaranteed protein ingredients. Each package of poultry feed containing urea shall have attached to it a separate label which bears the following legend: "This feed contains urea for a claimed treatment and preventative of coccidiosis. The nitrogen content of urea is not considered in the formulation of the protein guarantee, and for protein check purposes, the combined ammoniacal and urea nitrogen content must be deducted from the total nitrogen content."

REGULATION 32.

The term "Dehydrated" may precede the name of any product, provided the product has been artificially dried.

When water is removed from finished, mixed food for domestic animals, the term "Dehydrated" may be used in, or parenthetically added to the brand name. When the ingredients of any such food are dried separately and then mixed, or when the previously dried ingredients are mixed, moistened with water and baked into biscuits, the term "Dehydrated" shall not appear or be added to the brand name.

REGULATION 33.

Whenever a feed component has admixed therewith a foreign ingredient, the resulting product becomes a "mixture."

REGULATION 34.

The word "mineralized" in the name of a feed is improper and misleading and may not be used as such. If reference to the mineral content in the name is desired, it is to be shown by the name of the ingredient, as "with bone meal," or "dairy feed with minerals," etc.

REGULATION 35.

Guarantees of minimum vitamin content of feeds and feeding supplements shall be stated in milligrams per pound, except that vitamin A content, other than precursors of vitamin A, shall be stated in U. S. P. units, vitamin D in products offered for poultry feeding in A.O.A.C. units, and vitamin D for other uses in U.S.P. units per pound of feed, and except that oils and concentrates containing vitamin A or vitamin D, or both, may also be labeled to show vitamin content in units per gram.

REGULATION 36.

ALFALFA PRODUCTS

- A. Chopped Alfalfa or Cut Alfalfa is the entire alfalfa hay, chopped or cut and not ground finely enough to become a meal. It must not contain an admixture of alfalfa straw or other foreign material.

- B. Alfalfa Meal is the product obtained from the grinding of the entire alfalfa hay, without the addition of any alfalfa stems, alfalfa straw or foreign material, or the abstraction of leaves. It must be reasonably free from other crop plants and weeds, and must not contain more than 33 per cent of crude fibre.
- C. Alfalfa Leaf Meal is the ground product consisting chiefly of the leafy materials separated from alfalfa hay or meal. It must be reasonably free from other crop plants and weeds and must not contain more than 18 per cent of crude fibre.
- D. Alfalfa Stem Meal is the ground product remaining after the separation of the leafy material from alfalfa hay or meal. It must be reasonably free from other crop plants and weeds.

REGULATION 37.

ANIMAL PRODUCTS

- A. Blood Meal is ground, dried blood.
- B. Blood Flour is dried blood, prepared by special process and reduced to a fine powder.
- C. Meat is the clean, wholesome flesh derived from slaughtered mammals and is limited to that part of the striate muscle which is skeletal or that which is found in the tongue, in the diaphragm, in the heart, or in the esophagus and does not include that found in the lips, in the snout, or in the ears, with or without the accompanying and overlying fat and the portions of skin, sinew, nerve and blood vessels which normally accompany the flesh. If it bears a name descriptive of its kind, it must correspond thereto.

The term "meat" when applied to the corresponding portions of animals other than cattle, swine, sheep and goats, shall be used in qualified form, as for example: "horse meat," "reindeer meat," "crab meat," etc.

- D. Meat By-Products consists of any non-rendered, clean, wholesome part of the carcass of slaughtered mammals other than meat, such as lungs, spleens, kidneys, brains, stomach and intestines, free from their contents; it does not include skin, horns, teeth, hoofs and bones. If it bears a name descriptive of its kind, it must correspond thereto.

The term "meat," when applied to the corresponding portions of animals other than cattle, swine, sheep and goats, shall be used in qualified form, as for example: "horse meat by-products," "reindeer meat by-products," "crab meat by-products," etc.

- E. Meat Meal or Meat Scrap is the finely ground, dry-rendered residue from animal tissues exclusive of hair, hoof, horn, blood, manure and stomach contents, except in such traces as might occur unavoidably in food factory practices. When these products contain more than 4.4 per cent of phosphorus (P), they shall be designated either "\_\_\_ per cent Protein Meat and Bone Meal" or "\_\_\_ per cent Protein Meat and Bone Scrap." If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

The designation "Meat Scrap" or "Meat and Bone Scrap" must not be used in connection with food for dogs and fur-bearing animals.

- F. Digester Tankage, Meat Meal Tankage, or Feeding Tankage is the finely ground, dried residue from animal tissues exclusive of hair, hoof, horn, manure and stomach contents, except in such traces as might occur unavoidably in good

factory practice, especially prepared for feeding purposes by tanking under live steam, or by dry-rendering or a mixture of the products. When these products contain more than 4.4 per cent of phosphorus (P), they must be designated "     per cent Protein Digester Tankage with Bone," "     per cent Protein Meat and Bone Meal Tankage," or "     per cent Protein Feeding Tankage with Bone." If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

- G. Whale Meal is prepared from the clean, dried undecomposed flesh of the whale, after part of the oil has been extracted. It contains not more than 3 per cent of salt (NaCl). If it contains more than 3 per cent of salt (NaCl), the amount of salt must constitute a part of the brand name, provided that in no case shall the salt content of this product exceed 7 per cent.
- H. Animal Liver Meal is the product obtained by drying and grinding liver from slaughtered mammals. This product must contain at least 60 micrograms of riboflavin per gram.
- I. Animal Liver and Glandular Meal is the product obtained by drying and grinding liver and other glandular tissue from slaughtered mammals. At least 50 per cent of the dry weight of the product must be derived from liver, and the product must contain at least 40 micrograms of riboflavin per gram.
- J. Extracted Animal Liver Meal is the product obtained by drying and grinding the residue of animal liver tissue from which a large portion of the vitamins and/or minerals have been removed.
- K. Raw Bone Meal is the dried, ground product suitable for animal feeding, obtained by cooking in water at atmospheric pressure, undecomposed bone, just enough to remove excess fat and meat. It must not contain less than 23 per cent of protein.
- L. Steamed Bone Meal is the dried, ground product suitable for animal feeding, obtained by cooking bones with steam under pressure.
- M. Special Steamed Bone Meal is the dried, ground product suitable for animal feeding, obtained by cooking dried bones after the removal of grease and meat fibre with steam under pressure in the process of obtaining gelatine or glue.
- N. Bone Charcoal or Bone Black is the product obtained by charring bones in closed retorts. It shall contain not less than 14.7 per cent of phosphorus (P).
- O. Spent Bone Black is the product resulting from the repeated charring of bone charcoal or bone black after use in clarifying sugar solutions. It shall contain not less than 11.5 per cent of phosphorus (P).

REGULATION 38.

BARLEY PRODUCTS

- A. Barley Hulls is the product consisting of the outer coverings of the barley.
- B. Barley Feed is the entire by-product resulting from the manufacture of pearl barley from clean barley.
- C. Barley Mixed Feed is the entire offal from the milling of barley flour from clean barley and is composed of barley middlings.

- D. Ground Barley is the entire product obtained by grinding clean sound barley, containing not less than 90 per cent of pure barley and not more than 10 per cent of other grains, weed seeds and other foreign material and not more than 6 per cent of crude fibre; provided that no portion of this stated 10 per cent of other grains, weed seeds or other foreign material shall be intentionally added.
- E. Mixed Feed Barley is the entire product obtained by grinding country run barley containing not less than 75 per cent of pure barley and not more than 25 per cent of other grains, weed seeds and other foreign material; provided that no portion of this stated 25 per cent of other grains, weed seeds or foreign materials shall be intentionally added. The ingredients must be stated as barley, other grains, weed seeds, and foreign material.

REGULATION 39. BREWERS' AND DISTILLER'S PRODUCTS

- A. Brewers' Dried Grains is the dried extracted residue of barley malt alone or in mixture with other cereal grain or grain products resulting from the manufacture of wort.
- B. Malt Sprouts is the product obtained by the removal of the sprouts from malted barley together with the malt hulls, other parts of malt and foreign material unavoidably present. It shall contain not less than 24 per cent of protein. The term "Malt Sprouts" when applied to a corresponding portion of other malted cereals shall be used in qualified form, as for example: "Rye Malt Sprouts," "Wheat Malt Sprouts," etc.
- C. Per Cent Protein Malt Cleanings is the product obtained from the cleaning of malted barley or from the recleaning of malt which does not meet with the minimum protein standard of malt sprouts.
- D. Malt Hulls is the product consisting almost entirely of hulls as obtained in the cleaning of malted barley.
- E. Dried Spent Hops is the product obtained by drying the material filtered from hopped wort.
- F. Corn Distillers' Dried Grains is the dried residue obtained in the manufacture of alcohol and distilled liquors from corn, or from a grain mixture in which corn predominates.
- G. Rye Distillers' Dried Grains is the dried residue obtained in the manufacture of alcohol and distilled liquors from rye, or from a grain mixture in which rye predominates.
- H. Wheat Distillers' Dried Grains is the dried residue obtained in the manufacture of alcohol and distilled liquors from wheat, or from a grain mixture in which wheat predominates.
- I. Corn Distillers' Dried Grains With Solubles is the dried residue obtained in the manufacture of alcohol and distilled liquors from corn, or from a grain mixture in which corn predominates, and contains the major portion of the condensed screened stillage dried therewith.
- J. Rye Distillers' Dried Grains With Solubles is the dried residue obtained in the manufacture of alcohol and distilled liquors from rye, or from a grain mixture in which rye predominates, and contains the major portion of the condensed screened stillage dried therewith.
- K. Wheat Distillers' Dried Grains With Solubles is the dried residue obtained in the manufacture of alcohol and distilled liquors from wheat, or from a grain mixture in which rye predominates and contains the major portion of the condensed screened stillage dried therewith.

- L. Semi-Solid Corn Distillers' Grain With Solubles is the residue from the manufacture of alcohol and distilled liquors from corn, or from a grain mixture in which corn predominates, obtained by condensing to a syrupy consistency the entire stillage contained therein.
- M. Semi-Solid Rye Distillers' Grains With Solubles is the residue from the manufacture of alcohol and distilled liquors from rye, or from a grain mixture in which rye predominates, obtained by condensing to a syrupy consistency the entire stillage contained therein.
- N. Semi-Solid Wheat Distillers' Grain With Solubles is the residue from the manufacture of alcohol and distilled liquors from wheat, or from a grain mixture in which wheat predominates, obtained by condensing to a syrupy consistency the screened stillage contained therein.
- O. Semi-Solid Corn Distillers' Solubles is the product obtained in the manufacture of alcohol and distilled liquors from corn, or from a grain mixture in which corn predominates, by condensing to a syrupy consistency the screened stillage obtained therefrom.
- P. Semi-Solid Rye Distillers' Solubles is the product obtained in the manufacture of alcohol and distilled liquors from rye, or from a grain mixture in which rye predominates, by condensing to a syrupy consistency the screened stillage obtained therefrom.
- G. Semi-Solid Wheat Distillers' Solubles is the product obtained in the manufacture of alcohol and distilled liquors from wheat, or from a grain mixture in which wheat predominates, by condensing to a syrupy consistency the screened stillage obtained therefrom.
- H. Dried Corn Distillers' Solubles is the product obtained by drying Semi-Solid Corn Distillers' Solubles.
- I. Dried Rye Distillers' Solubles is the product obtained by drying Semi-Solid Rye Distillers' Solubles.
- J. Dried Wheat Distillers' Solubles is the product obtained by drying Semi-Solid Wheat Distillers' Solubles.
- K. Dried Molasses Distillers' Solubles is the product obtained by drying the residue from the yeast fermentation of molasses after the removal of the alcohol by distillation.
- L. Yeast Dried Grains or Vinegar Dried Grains is the properly dried residue from the mixture of cereals, malt and malt sprouts (sometimes cottonseed meal) obtained in the manufacture of yeast or vinegar, and consists of corn or corn and rye from which most of the starch has been extracted, together with malt added during the manufacturing process to change the starch to sugar, and malt sprouts (sometimes cottonseed meal) added during the manufacturing process to aid in filtering the residue from the wort and to serve as a source of food supply for the yeast.

REGULATION 40.

CORN PRODUCTS

- A. Corn Meal is finely ground, unbolted corn.
- B. Corn Bran is the outer coating of the corn kernel, with little or none of the starchy part or the germ.
- C. Corn Feed Meal is the fine siftings obtained in the manufacture of screened corn chop, screened ground corn or screened cracked corn, with or without its aspiration products added.

- D. Corn Chop, Ground Corn or Cracked Corn is the entire product made by grinding, cutting or chopping the grains of sound Indian corn, and may be fine, medium or coarse, and must not contain more than 4 per cent of foreign material.
- E. Screened Corn Chop, Screened Ground Corn, or Screened Cracked Corn is the coarse portion of corn chop, ground corn or cracked corn from which most of the fine particles have been removed, and must not contain more than 4 per cent of foreign material.
- F. Corn Grits or Hominy Grits is the product consisting of the fine or medium sized, hard flinty portions of sound Indian corn containing little or none of the bran or germ.
- G. Ear Corn Chops is corn and cob chopped, without the husk, with no greater proportion of cob than occurs in the ear corn in its natural state.
- H. Corn Gluten Feed is that part of commercial shelled corn that remains after the extraction of the larger part of the starch and germ by the processes employed in the wet milling manufacture of corn starch or syrup. It may or may not contain one or more of the following: corn solubles, corn oil meal.
- I. Corn Gluten Meal is that part of commercial shelled corn that remains after the extraction of the larger part of the starch and germ, and the separation of the bran by the process employed in the wet milling manufacture of corn starch or syrup. It may or may not contain one or more of the following: corn solubles, corn oil meal.
- J. Maltose Process Corn Gluten Feed is the dried residue from degermed corn, after removal of the starch in the manufacture of malt syrup.
- K. Hominy Feed is a mixture of corn bran, corn germ and a part of the starchy portion of either white or yellow corn kernels or mixture thereof as produced in the manufacture of peral hominy, hominy grits or table meal, and shall contain not less than 5 per cent of crude fat. If prefixed with the words "white" or "yellow," the product must correspond thereto.
- L. Corn Oil Cake consists of the corn germ from which part of the oil has been pressed and is the product obtained in the wet milling process of manufacture of corn starch, corn syrup, and other corn products.
- M. Corn Oil Meal is ground corn oil cake.
- N. Corn Germ Cake consists of corn germ with other parts of the corn kernel from which part of the oil has been pressed, and is the product obtained in the dry milling process of manufacture of corn meal, corn grits, hominy-feed and other corn products.
- O. Corn Germ Meal is ground corn germ cake.
- P. Corn Screenings is the product consisting of the small light grains of corn, parts of grains of corn or other cereals and other materials having feeding value, separately or together, obtained by screening shelled corn, excluding sand, dirt and other similar inert materials.

REGULATION 41.

COTTONSEED PRODUCTS

- A. Cottonseed Meal is a product of the cottonseed only, composed principally of the kernel with such portion of the hull as is necessary in the manufacture of oil; provided that

nothing shall be recognized as cottonseed meal that does not conform to the foregoing definition and that does not contain at least 36 per cent of protein. Cottonseed meal shall be graded and classed as follows:

(1) Per Cent Protein Cottonseed Meal, Prime Quality

Cottonseed meal, prime quality, must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color, yellowish, not brown or reddish, free from excessive lint, and shall contain not less than 36 per cent of protein. It must be designated and sold according to its protein content. Cottonseed meal with 36 per cent of protein must be termed "36 per cent Protein Cottonseed Meal, Prime Quality," and higher grades similarly designated; as "43 per cent Protein Cottonseed Meal, Prime Quality," etc.

(2) Per Cent Protein Cottonseed Meal, Off Quality

Cottonseed meal not fulfilling the above requirement as to color, odor and texture, must be graded "36 per cent Protein Cottonseed Meal, Off Quality," and higher grades similarly designated.

(3) Per Cent Protein Cottonseed Feed

A mixture of cottonseed meal and cottonseed hulls. It must be designated and sold according to its protein content.

(4) Per Cent Protein Whole Pressed Cottonseed, Prime Quality

The product resulting from subjecting the whole, sound, mature, clean, undecorticated cottonseed to pressure for the extraction of oil and includes the entire cottonseed less the oil extracted and the lint removed. It must be designated and sold according to its protein content.

(5) Per Cent Protein Ground Whole Pressed Cottonseed, Prime Quality

Whole pressed cottonseed, ground. It must be designated and sold according to its protein content.

B. Cottonseed Cake is a product of the cottonseed only, composed principally of the kernel with such portion of the hull as is necessary in cottonseed cake that does not conform to the following definitions and that does not contain at least 36 per cent of crude protein. Cottonseed Cake shall be graded and classed as follows:

(1) Per Cent Protein Cottonseed Cake, Prime Quality

Cottonseed cake, prime quality, must be firm, but not flinty in texture, of sweet odor, free of mold, and when ground into meal must produce cottonseed meal, prime quality. It shall contain not less than 36 per cent of crude protein. It must be designated and sold according to its protein content. Cottonseed cake with 43 per cent of crude protein must be termed "43 Per Cent Protein Cottonseed Cake, Prime Quality," and lower grades similarly designated.

(2) Per Cent Protein Cottonseed Cake, Off Quality

Cottonseed cake not fulfilling the above requirement as to color, odor, and texture, must be labeled "43 Per Cent Protein Cottonseed Cake, Off Quality," and lower grades similarly designated.



(3) Per Cent Protein Nut-Size Cottonseed Cake,  
Quality

Nut-size cottonseed cake shall be a product which will pass through  $1\frac{1}{8}$ -inch round perforation and over  $7/8$ -inch round perforation. It shall be free from meal, pea-size and pebble-size cake and shall not contain in excess of 16 per cent of sheep-size cake.

(4) Per Cent Protein Sheep-Size Cottonseed Cake,  
Quality

Sheep-size cottonseed cake shall be a product which will pass through  $7/8$ -inch round perforation and over  $5/8$ -inch round perforation. It shall be free from meal and pebble-size cake and shall not contain in excess of a total of 10 per cent of nut-size and pea-size cake.

(5) Per Cent Protein Pea-Size Cottonseed Cake,  
Quality

Pea-size cottonseed cake shall be a product which will pass through  $5/8$ -inch round perforation and over  $3/8$ -inch round perforation. It shall be free from meal and nut-size cake and shall not contain in excess of 10 per cent of sheep-size and pebble-size cake.

(6) Per Cent Protein Pebble-Size Cottonseed Cake,  
Quality

Pebble size cottonseed cake shall be a product consisting of fine particules and small pieces of cottonseed cake capable of passing through a  $3/8$ -inch round perforation.

(7) Per Cent Protein Cottonseed Cubes or Pellets, Prime  
Quality

Cottonseed cubes or pellets, prime quality, processed through a cubing or pelleting machine, must be firm, but not flinty, of sweet odor, free of mold, and when ground into meal, must produce cottonseed meal, prime quality. It shall contain not less than 36 per cent of crude protein. It must be designated and sold according to its protein content.

- C. Munsell Color Standard for Cottonseed Cake and Meal, Prime Quality Whenever in the definitions reference is made to color of cottonseed cake or cottonseed meal, prime quality, 41 per cent or higher protein cottonseed cake or cottonseed meal shall not be darker in color than Munsell Color Standard " $1\frac{1}{2}$  yellow, 5/5," and 36 per cent protein cottonseed cake or cottonseed meal, prime quality, shall not be darker in color than Munsell Color Standard "10 yellow--red 5/5."

REGULATION 42.

LESPEDEZA PRODUCTS

- A. Lespedeza Meal is the product obtained from the grinding of the entire lespedeza hay, without the addition of any lespedeza stems, lespedeza straw, or foreign material, or the abstraction of leaves. It must be reasonably free from other crop plants and weeds and must not contain more than 28 per cent of crude fibre.
- B. Lespedeza Stem Meal is the ground product remaining after the separation of the leafy material from lespedeza hay or meal. It must be reasonably free from other crop plants and weeds.
- C. Lespedeza Straw Meal is the ground product remaining after the separation of the seed from lespedeza. It must be reasonably free from other crop plants and weeds.

REGULATION 43.

LINSEED AND FLAX PRODUCTS

- A. Ground Flaxseed or Flaxseed Meal is the product obtained by grinding flaxseed which has been screened and cleaned of weed seeds and other foreign materials by the most improved commercial process; the final product must contain less than 6 per cent of weed seeds and other foreign materials, and, provided further, that no portion of the stated 6 per cent of weed seeds and other foreign materials shall be deliberately added.
- B. Per Cent Protein Linseed Oil Cake or Per Cent Protein Linseed Oil Chips is the product obtained after the removal of part of the oil from ground flaxseed as described above. It shall contain not more than 0.5 per cent of acid insoluble ash. If a name descriptive of the process of manufacture, such as hydraulic, mechanical, or solvent extracted be used, the product must correspond thereto.
- C. Per Cent Protein Linseed Oil Meal is finely ground Linseed Oil Cake or finely ground Linseed Oil Chips.
- D. Per Cent Protein Linseed Cubes or Pellets, processed through a cubing or pelleting machine, must be firm but not flinty, of sweet odor, free of mold, and when ground must produce Linseed Oil Meal as defined above.
- E. Flaxseed Screenings Oil Feed is the ground product obtained after extraction of part of the oil by crushing, cooking and hydraulic or mechanical pressure, or by crushing, heating and the use of solvents, from the smaller imperfect flaxseed, weed seeds and other foreign materials having feeding value, separated in cleaning flaxseed.
- F. Per Cent Protein Linseed Feed is a mixture of Linseed Oil Meal with Flaxseed Screenings Oil Feed, or other flaxseed by-products, or both.
- G. Flax Plant By-Product is that portion of the flax plant remaining after the separation of the seed, the bast fibre and a portion of the shives, and consists of flax shives, flax pods, broken and immature flax seeds and the cortical tissues of the stem.

REGULATION 44.

MARINE PRODUCTS

- A. Fish Meal is clean, dried, ground tissues of undecomposed whole fish or fish cuttings, either or both, with or without the extraction of part of the oil, and contains not more than 3 per cent of salt (NaCl). If it contains more than 3 per cent of salt (NaCl), the amount of salt must constitute a part of the brand name, provided that in no case shall the salt content of this product exceed 7 per cent.
- B. Fish Residue Meal is the clean, dried, undecomposed residue from the manufacture of glue from non-oily fish and contains not more than 3 per cent of salt (NaCl). If it contains more than 3 per cent of salt (NaCl), the amount of salt must constitute a part of the brand name, provided that in no case shall the salt content of this product exceed 7 per cent.
- C. Fish Liver and Glandular Meal is the product obtained by drying the complete coelomic contents of the fish. At least 50 per cent of the dry weight of the product must be derived from fish liver and the product must contain at least 40 micrograms per gram of riboflavin.

- D. Crab Meal is prepared from the undecomposed dried waste of the crab industry and contains the shell, viscera and part or all of the flesh. It contains not less than 25 per cent of protein and not more than 3 per cent of salt (NaCl). If it contains more than 3 per cent of salt (NaCl), the amount of salt must constitute a part of the brand name, provided that in no case shall the salt content of this product exceed 7 per cent.
- E. Shrimp Meal is prepared from the undecomposed dried waste of the shrimp industry and contains the head, hull, or the whole shrimp, either or in mixture, and not more than 3 per cent of salt (NaCl). If it contains more than 3 per cent of salt (NaCl), the amount of salt must constitute a part of the brand name, provided that in no case shall the salt content of this product exceed 7 per cent.

REGULATION 45.

MILK PRODUCTS

- A. Dried Buttermilk (Feeding) is the product resulting from the removal of water from clean, sound buttermilk derived from natural cream to which no foreign substances have been added, excepting such as are necessary and permitted in the manufacture of butter. It contains not more than 8 per cent moisture, not more than 13 per cent of mineral matter (ash), and not less than 5 per cent of butterfat, as determined by the Reese-Gottlieb method.
- B. Evaporated Buttermilk, Concentrated Buttermilk or Condensed Buttermilk is the product resulting from the removal of a considerable portion of water from clean, sound buttermilk derived from natural cream to which no foreign substances have been added, excepting such as are permitted and necessary in the manufacture of butter. It contains not less than 27 per cent of total solids, not less than .055 per cent of butterfat for each per cent of solids, and not more than .14 per cent of ash for each per cent of solids.
- C. Dried Skimmed Milk (Feeding) is the product resulting from the removal of water from clean, sound skimmed milk. It contains not more than 8 per cent of moisture.
- D. Condensed Skimmed Milk is the product resulting from the removal of a considerable portion of water from clean, sound skimmed milk. It contains not less than 27 per cent of total solids.
- E. Dried Soured Skimmed Milk is the product resulting from the removal of water from clean, sound skimmed milk which has been soured by a suitable culture of lactic bacteria. It contains not more than 8 per cent of moisture.
- F. Evaporated Soured Skimmed Milk, Concentrated Soured Skimmed Milk or Condensed Soured Skimmed Milk is the product resulting from the removal of a considerable portion of water from clean, sound skimmed milk which has been soured by a suitable culture of lactic bacteria. It contains not less than 27 per cent of total solids.
- G. Condensed Whey is the product resulting from the removal of a considerable portion of water from clean, sound cheese or casein whey, either or both. It must not contain less than 62 per cent of total whey solids. When this product contains less than 62 per cent of total whey solids, it shall be designated "condensed whey, \_\_\_ per cent solids."
- H. Condensed Whey Solubles is the product resulting from the removal of albumen and the partial removal of milk sugar from clean, sound whey, to which no foreign substances have been added except such as are necessary in the manufacture of milk sugar.

- I. Dried Whey Solubles is the dried product resulting from the removal of albumen and the partial removal of milk sugar from clean, sound whey, to which no foreign substances have been added except such as are necessary in the manufacture of milk sugar.
- J. Dried Whey is the by-product from the manufacture of cheese or casein, either or both. This product shall contain at least 65 per cent of lactose (milk sugar).

REGULATION 46.

MOLASSES

- A. Feeding Cane Molasses is a by-product of the manufacture of cane sugar from cane and shall contain 48 per cent or more of total sugars expressed as invert sugar. Its solution in an equal weight of water shall test not less than 39.75 degrees Brix.
- B. Feeding Beet Molasses is a by-product of the manufacture of beet sugar from sugar beets and shall contain 48 per cent or more of total sugars expressed as invert sugar. Its solution in an equal weight of water shall test not less than 39.75 degrees Brix.
- C. Feed Corn Sugar Molasses is a by-product of the manufacture of corn sugar from corn and shall contain 48 per cent or more of reducing sugars expressed as dextrose, and shall contain 60 per cent or more of total carbohydrates. Its solution in an equal weight of water shall test not less than 39 degrees Brix.

REGULATION 47.

OAT PRODUCTS

- A. Oat Hulls is the product consisting of the outer covering of the oat.
- B. Oat Middlings is the product consisting of the floury portions of the oat groat obtained in the milling of rolled oats.
- C. Oat Shorts is the product consisting of the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the groat obtained in the milling of rolled oats.
- D. Oat Chop, Ground Oats, Pulverized Oats, Crushed Oats or Crimped Oats consists of the entire product made by chopping, cutting, grinding, crushing or crimping whole oats.
- E. Oat Groats are the kernels produced from cleaned and dried oats in the process of manufacturing oat meal.
- F. Hulled Oats, or Undried Oat Groats are the kernels produced from the undried grain the process of hulling oats.
- G. Feeding Oat Meal is a product obtained in the manufacture of rolled oat groats or rolled oats and consists of broken rolled oat groats, oat groat chips and floury portions of the oat groats, with only such quantity of finely ground oat hulls as is unavoidable in the usual process of commercial milling. It must not contain more than 4 per cent of crude fibre.
- H. Cut Oat Groats, Cracked Oat Groats, or Ground Oat Groats is the product produced by cutting, cracking or grinding Oat Groats.

- I. Clipped Oat By-Product is the by-product obtained in the manufacture of clipped oats. It may contain the light chaffy material broken from the end of the hulls, empty hulls, light immature oats and dust. It must not contain an excessive amount of oat hulls.
- J. Oat Mill Feed (Oat Hulls, Oat Shorts and Oat Middlings) is the entire by-product in the manufacture of oat groats and consists of oat hulls, oat shorts and oat middlings. If used in a mixed feed, it shall be called "Oat Mill Feed" (Oat Hulls Shorts and Oat Middlings).

REGULATION 48.

PEANUT PRODUCTS

- A. Per Cent Protein Peanut Oil Cake is the product obtained after the extraction of part of the oil by pressure or solvents from peanut kernels as produced under reasonable milling conditions.
- B. Per Cent Protein Peanut Oil Meal is ground peanut oil cake.
- C. Unhulled Peanut Oil Feed is the ground residue obtained after the extraction of part of the oil from whole peanuts, and the ingredients must be designated as "Peanut Meal and Hulls."
- D. Ground Peanut Vine Hay is the ground product obtained after the separation of peanuts from peanut vines and contains all or a large portion of the leaves and vines.
- E. Ground Peanut Vine Stem Hay is the ground product obtained after the separation of peanuts from peanut vines from which practically all of the leaves have been removed and only vines and stems remain.

REGULATION 49.

RICE PRODUCTS

- A. Rice Bran is the pericarp or bran layer of the rice, with only such quantity of hull fragments as is unavoidable in the regular milling of rice.
- B. Rice Hulls is the product consisting of the outer covering of the rice.
- C. Rice Polishings is a by-product of rice obtained in the milling operation of brushing the grain to polish the kernel.
- D. Rice Meal is ground brown rice or ground rice after the hull has been removed.
- E. Ground Rough Rice is ground rice from which the hull has not been removed or ground paddy rice.
- F. Rice Stone Bran is the sifting from the materials secured in removing hulls from rice and contains rice germs, broken rice and some rice hulls.
- G. Rice Huller Bran is a product secured by the huller and cones from brown rice and consists mostly of the bran and germs.

REGULATION 50.

RYE PRODUCTS

- A. Rye Bran is the coarse outer covering of the rye kernel as separated from the cleaned and scoured rye.
- B. Rye Feed is a by-product obtained in the usual process of the milling of rye flour from cleaned and scoured rye grain, consisting principally of the mill-run of the outer covering of the rye grain and the germ with small quantities of flour and aleurone.

- C. Rye Red Dog is a by-product obtained in the usual process of the milling of rye flour, consisting principally of aleurone with small quantities of rye flour and fine rye bran particles and must not contain more than 3.5 per cent of crude fibre.
- D. Rye Low-Grade Feed Flour consists principally of rye flour and small quantities of aleurone and fine rye bran particles and must not contain more than 1.5 per cent of crude fibre.
- E. Rye Middlings consists of rye feed and rye red dog combined in the proportions obtained in the usual process of milling rye flour.
- F. Rye Flour Middlings consists of rye feed, rye red dog and rye flour combined in the proportions obtained in the milling of rye flour and must not contain more than 5 per cent of crude fibre.

REGULATION 51.

SCREENINGS

- A. Screenings consists of a mixture of mill or elevator run materials or a combination of varying amounts of materials obtained in the process of cleaning grain or seed, either or both, such as inferior, light or broken grain or seed, weed seeds, hulls, chaff, joints, straw, elevator dust, floor sweepings. They must be relatively free of unpalatable or injurious weed seeds, sand and dirt. They must not contain more than 14 per cent of fibre or more than 6.5 per cent of ash. If they bear a name descriptive of their kind of origin, they must correspond thereto.
- B. Screenings--Grain consist of inferior, light or broken grain or seed obtained in the process of cleaning grain or seed or recleaning screenings, either or both. They must be relatively free of weed seeds, chaff, straw, hulls, joints, sand and dirt and other foreign materials. If they bear a name descriptive of their kind or origin, they must correspond thereto.
- C. Screenings Waste or Screenings Refuse is a mixture of materials or a combination of varying amounts of materials obtained in the process of cleaning grain or seed, either or both, or recleaning screenings, such as weed seeds which may be unpalatable or injurious, chaff, hulls, straw, sticks, joints, elevator dust, floor sweepings, sand and dirt.
- D. Scourings consists of such portions of the outside, brush, white caps, dust, smut and other materials as are separated from the grain in the usual commercial process of scouring.

NOTE If to any wheat or rye by-product feeds there should be added screenings or scourings, as above defined, either ground or unground, bolted or unbolted, such brand shall be so registered, labeled and sold as clearly to indicate this fact. The word "Screenings," or "Scourings," as the case may be, shall appear as part of the name or brand and shall be printed in the same size and face of type as the remainder of the brand name. When the word "Screenings" appears, it is not necessary to show also on the labeling the word "Scourings."

The crude fibre standards as shown in the definitions for wheat and rye products apply also if screenings are added.

REGULATION 52.

SOYBEAN PRODUCTS

- A. Ground Soybeans is the product obtained by grinding whole soybeans without cooking for removing any of the oil.

- B. Per Cent Protein Soybean Oil Cake or Per Cent Protein Soybean Oil Chips is the product after the extraction of part of the oil by pressure or solvents from soybeans. If a name descriptive of the process of manufacture, such as expeller, hydraulic or solvent extracted, be used the product must correspond thereto.
- C. Per Cent Protein Oil Meal is ground soybean oil cake or ground soybean oil chips. If a name descriptive of the process of manufacture, such as expeller, hydraulic or solvent extracted, be used, the product must correspond thereto.
- D. Soybean Mill Feed is the by-product resulting from the manufacture of soybean flour or grits and is composed of soybean hulls and the offal from the tail of the mill.
- E. Soybean Hay Meal is the product obtained from the grinding of the entire soybean hay, without the addition of any stems, straw or foreign material, or the abstraction of leaves or beans. It must be reasonably free from other crop plants and weeds and must not contain more than 33 per cent of crude fibre.

REGULATION 53.

VITAMINS

- A. Cod Liver Oil is the oil obtained from the livers of *gadus morrhuae* or other species of the family *gadidae*, either or both. It must contain not less than 850 U.S.P. units of vitamin A and not less than 85 A.O.A.C. chick units of vitamin D per gram.
- B. Sardine Oil or Pilchard Oil is the product obtained by extraction of part of the oil from the whole Pacific Sardine or pilchard or from cannery refuse of this species of fish.
- C. Salmon Oil is the product obtained by extraction of part of the oil from the cannery refuse of salmon.
- D. Tuna Oil is the product obtained by extraction of part of the oil from the cannery refuse of tuna.
- E. Menhaden Oil is the product obtained by extraction of part of the oil from whole menhaden.
- F. Herring Oil is the product obtained by extraction of part of the oil from the whole herring or part of the herring.
- G. Salmon Liver Oil is the product obtained by extraction of part of the oil from salmon livers.
- H. Stearine is the solid material obtained by filtration from an animal or vegetable oil after chilling or freezing in the process of refining. When this product is sold as a feed, the term shall be prefixed by the name of the oil from which it is obtained.
- I. D Activated Animal Sterol is a product which is obtained by activation of a sterol fraction of animal origin with ultra-violet light or other means. For label identification it may be followed with the parenthetical phrase ("Source of Vitamin D<sub>3</sub>").
- J. Vitamin A & D Feeding Oil is either fish or fish liver oil or a blend of two or more of the following: Vitamin A and/or D concentrate, synthetic vitamin D, fish liver oil, fish oil, marine animal oil, or edible vegetable oil. The vitamin potency shall be stated in A.O.A.C. chick units of vitamin D and U.S.P. units of vitamin A per gram.

- K. Vitamin D Feeding Oil is either fish or fish liver oil or a blend of two or more of the following: vitamin D concentrate, synthetic vitamin D, fish liver oil, fish oil, marine animal oil, or edible vegetable oil. The vitamin potency shall be stated in A.O.A.C. chick units of vitamin D per gram.
- L. Vitamin A Feeding Oil is either fish or fish liver oil or a blend of two or more of the following: vitamin A concentrate, fish liver oil, fish oil, marine animal oil, or edible vegetable oil. The vitamin potency shall be stated in U.S.P. units of vitamin A per gram.
- M. D Activated Plant Sterol is a product which is obtained by activation of a sterol fraction of plant origin with ultra-violet light or other means. For label identification, it may be followed with the parenthetical phrase "(Source of Vitamin D)".
- N. Vitamin Concentrates are concentrated commercial feeding stuffs within the meaning of Chapter 211, Laws of 1939, and must be registered with the State Department of Agriculture. Application for registration thereof shall state:
1. Source of claimed vitamin potency.
  2. Measure of claimed vitamin potency in terms approved by the American Association of Official Agricultural Chemists.

All concentrated commercial feeding stuffs for which vitamin potency is claimed must be so labeled as to show the registered vitamin concentrate used or other source of the claimed vitamin potency.

REGULATION 54.

WHEAT PRODUCTS

- A. Wheat Bran is the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling.
- B. Wheat Standard Middlings consist mostly of fine particles of wheat bran, wheat germ, and very little of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual commercial process of milling and must not contain more than 9.5 per cent of crude fibre.
- C. Wheat Flour Middlings shall consist of wheat standard middlings and wheat red dog combined in the proportions obtained in the usual process of milling and must not contain more than 6.0 per cent of crude fibre.
- D. Wheat Red Dog is a by-product obtained in the usual commercial process of flour milling, consisting principally of aleurone with small quantities of wheat flour and fine wheat bran particles and must not contain more than 4.0 per cent of crude fibre.
- E. Wheat Low-Grade Feed Flour is a by-product obtained in the usual commercial process of flour milling, consisting principally of wheat flour with small quantities of aleurone and fine wheat bran particles and must not contain more than 1.5 per cent of crude fibre.
- F. Wheat Bran and Wheat Standard Middlings consist of the two commodities as defined above, mixed in the proportions obtained in the usual process of commercial milling.



- G. Hard Wheat Mixed Feed (mill-run wheat feed) consists of wheat bran and wheat flour middlings combined in the proportions obtained in the usual process of commercial milling. This product must not contain more than 9.5 per cent of crude fibre.
- H. Wheat Brown Shorts (Wheat Red Shorts) consists mostly of the fine particles of wheat bran, wheat germ and very little of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual commercial process of milling and must not contain more than 7.5 per cent of crude fibre.
- I. Wheat Gray Shorts (Wheat Gray Middlings or Wheat Total Shorts) consists of the fine particles of the outer bran, the inner bran or bee-wing bran, the germ and the offal or fibrous material obtained from the "tail of the mill." This product must be obtained in the usual process of commercial milling and must not contain more than 6.0 per cent of crude fibre.
- J. Wheat White Shorts or Wheat White Middlings consists of a small portion of the fine wheat bran particles and the wheat germ and a large portion of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual process of flour milling and must not contain more than 3.5 per cent of crude fibre.
- K. Wheat Mixed Feed (Mill-run wheat feed) consists of wheat bran and the gray of total shorts combined in the proportions obtained in the usual process of commercial milling. This product must not contain more than 8.5 per cent of crude fibre.
- L. Commercial Wheat Germ Meal is a commercial product obtained in the grinding of wheat, composed chiefly of wheat germs together with some bran and middlings or shorts and shall contain not less than 25 per cent of protein and 9 per cent of fat.
- M. Wheat Germ Oil Cake is the cake secured in the removal of part of the oil from commercial wheat germs and shall contain not less than 29 per cent of protein.
- N. Wheat Germ Oil Meal is ground wheat germ oil cake.

REGULATION 55.

YEAST

- A. Yeast is the cells of an organism of the botanical classification "saccharomyces cerevisiae."
- B. Irradiated Yeast, Irradiated \_\_\_\_\_ Yeast is yeast which has been subjected to ultra-violet rays in order to increase its anti-rachitic potency.
- C. Brewers' Dried Yeast is the properly dried yeast filtered from beer after fermentation and shall contain not less than 45 per cent of protein on the moisture free basis.
- D. Grain Distillers' Dried Yeast is the properly dried yeast resulting from the fermentation of grains and yeast, separated from the mash, either before or after distillation.
- E. Molasses Distillers' Dried Yeast is the properly dried yeast resulting from the fermentation of molasses and yeast, separated from the medium, either before or after distillation.

REGULATION 56.

MISCELLANEOUS PRODUCTS

- A. Dried Apple Pomace is the sound, dried residue obtained by the removal of cider from apples.

- B. Dried Apple Pectin Pulp is the sound, dried residue obtained by the removal of pectin from apple products.
- C. Dried Beet Pulp is the dried residue from sugar beets which have been cleaned and freed from crowns, leaves, and sand, and which have been extracted in the process of manufacturing sugar.
- D. Buckwheat Feed is a mixture of buckwheat middlings and buckwheat hulls. It must not contain more than 30 per cent of crude fibre.
- E. Buckwheat Middlings is that portion of the buckwheat grain immediately under the hull after separation of the flour. It shall contain no more hulls than is obtained in the usual process of buckwheat milling, and must not contain more than 10 per cent of crude fibre.
- F. Chop is a ground or chopped feed composed of one or more different cereals or by-products thereof. If it bears a name descriptive of the kind of cereals, it must be made exclusively of the entire grains of those cereals.
- G. Dried Citrus Pulp is the peel, pulp, rag, some seed, and occasional cull fruit of citrus fruit which has been ground, filter-pressed and dried. It may or may not be partially neutralized with lime, the finished product to contain not more than 2.5 per cent of calcium (Ca). If it bears a name descriptive of the source, it must conform thereto.
- H. Per Cent Protein Babassu Oil Meal is the ground residue obtained after the extraction of part of the oil from the babassu kernels (*Orbiguya speciosa*) by crushing, cooking and mechanical pressure.
- I. Per Cent Protein Coconut Oil Meal or Per Cent Protein Copra Oil Meal is the ground residue from the extraction of part of the oil from the dried meat of the coconut.
- J. Palm Kernel Oil Meal is the ground residue from the extraction of part of the oil by pressure or solvents from the kernel of the fruit of *Elaeis guineensis* or *Elaeis melanococca*.
- K. Ivory Nut Meal is the ground waste material resulting from the manufacture of buttons and similar articles from the vegetable ivory nut.
- L. Head Chops is the product consisting of the entire heads of the grain sorghums chopped, and should bear the name of the sorghum from which it is made. This includes, among others, kaffir head chops, milo head chops, feterita head chops and sorghum head chops.
- M. Head Stems is the product consisting of the stems from the heads of the grain sorghums after the grain has been removed and should bear the name of the sorghum from which it is made.
- N. Processed Garbage is composed of dried animal and vegetable waste from garbage collected sufficiently often that harmful decomposition has not set in, and separated from material such as crockery and glass. Its odor must not be suggestive of the presence of decomposition and it must contain less than one per cent of glass. None of it shall contain knife-like or needle-like particles and the

maximum percentage of glass should be stated on the label when present in excess of one-fifth of one per cent.

- O. Per Cent Protein Sesame Oil Meal is the ground residue obtained after the extraction of part of the oil by pressure from sesame seed as produced under reasonable milling conditions.
- P. Dried Sweet Potato Pulp is the dried residue remaining as a by-product in the process of separation of the starch in its manufacture from sweet potatoes.
- Q. Dried Tomato Pomace is a mixture of tomato skins, pulp and crushed seeds resulting from the process of extracting the juice from tomatoes, and dried.
- R. Velvet Bean Meal is ground velvet beans containing only an unavoidable trace of hulls or pods.
- S. Ground Velvet Bean and Pod is the product derived by grinding velvet beans with the pod. It contains no additional pods or other materials.
- T. Iodized Salt is common salt (NaCl) containing not less than 0.007 per cent of iodine, uniformly distributed.

REGULATION 57 ADDITIONAL OFFICIALLY RECOGNIZED INGREDIENTS

<u>Recognized English Name and English Synonyms, if Any</u>	<u>Article or Substance Indicated By the Name and Synonyms</u>
Capsicum; Red Pepper	The dried, ripe fruit of any species of Capsicum.
Cupric Sulphate; Copper Sulphate	Crystallized copper sulphate with impurities not exceeding commercial grade.
Ferric Oxide; Red Oxide of Iron	Ferric oxide with impurities not exceeding commercial grade.
Ferrous Sulphate	Crystallized ferrous sulphate with impurities not exceeding commercial grade.
Dextrose	A refined, crystallized sugar, obtained chiefly by the hydrolysis of starch or of a starch-containing substance.
Glucose	A syrup obtained by the incomplete hydrolysis of starch or of a starch-containing substance.
Lactose; Milk Sugar	A sugar obtained from cow's milk.
Magnesium Sulphate; Epsom Salt	Magnesium sulphate with impurities not exceeding commercial grade.
Potassium Bitartrate; Cream of Tartar	Potassium bitartrate with impurities not exceeding commercial grade.
Potassium Nitrate; Saltpeter	Potassium nitrate with impurities not exceeding commercial grade.
Sodium Nitrate; Chili Saltpeter	Sodium nitrate with impurities not exceeding commercial grade.
Sodium Bicarbonate	Sodium bicarbonate with impurities not exceeding commercial grade.
Sodium Chloride; Common Salt	Sodium chloride with impurities not exceeding commercial grade.
Sodium Sulphate; Glauber's Salt	Sodium sulphate with impurities not exceeding commercial grade.
Sulphur	Sulphur with impurities not exceeding commercial grade.
Calcium Phosphate	Tricalcium salt of phosphoric acid with impurities not exceeding commercial grade.

<u>Continued</u> <u>Recognized English Name and</u> <u>English Synonym, If Any</u>	<u>Article or Substance Indicated By</u> <u>the Name and Synonym</u>
Dicalcium Phosphate	Dicalcium salt of phosphoric acid with impurities not exceeding commercial grade.
Bone Ash	The ash obtained by burning bones with free access of air and containing 15.3--16.6% P.
Precipitated Calcium Carbonate; Precipitated Chalk	Precipitated calcium carbonate with impurities not exceeding commercial grade.
Rock Phosphate	Ground phosphate rock of commercial grade.
Phosphatic Limestone	Ground phosphate-containing limestone of commercial grade.
Limestone; Calcite	Ground calcium limestone of commercial grade.
Dolomitic Limestone; Dolomite	Ground calcium-magnesium limestone of commercial grade.
Shell	Ground shells of oysters or of other mollusks.
Oyster Shell	Ground shells of oysters.

REGULATION 58. RABBIT, SHEEP & GOAT FEEDS

Concentrated commercial feeding stuffs which are used exclusively in the feeding of rabbits, sheep or goats and which are plainly labeled as being for that purpose only, may contain a fibre content not exceeding 20%.

REGULATION 59. BRANDING OF GROUND FEEDS

Every container in which is sold, offered or exposed for sale any meal made from entire grains of wheat, rye, barley, oats, corn or other cereal, shall be plainly so labeled as to identify the contents of such container and to identify the manufacturer, importer, distributor, agent or vendor thereof. Ground feed sold by original producer at retail shall be exempt.

Explanation: While such meals are not concentrated commercial feeding stuffs within the meaning of the Law, and hence are exempt from registration, they become subject to registration whenever adulterated or mixed one with another, or with any foreign substance. The above Regulation is necessary to make possible the fixing of responsibility for any such adulteration or admixture.

REGULATION 60. PEA PRODUCTS

- A. Pea Meal is a product composed solely of ground whole peas, either screenings, tailings or field run, and shall not contain any foreign matter.
- B. Pea Products Meal or Pea Blend is a product composed of a blend of pea bran as designated herein and pea meal as designated herein.
- C. Pea Bran is a product composed of pea pods, scalplings, hulls and other offal as obtained from processing and cleaning field run peas and shall not contain any pea meal other than that which is resultant of the processing operation.

The purpose of this Regulation is to clarify the marking of various pea products now on the market, and it shall be unlawful for any feed composed wholly of peas or pea products to be labeled other than in accordance with the above definitions. It is further understood that in addition to being properly labeled, pea products, pea meal, pea bran, pea products meal and pea blend shall be registered and marked in accordance with the provisions of Chapter 211, Laws of 1939.

REGULATION 61. EXEMPTION OF SMALL PARCELS

Retailers may make sales of small parcels taken from an original sack or other container, which original sack or other container bears a label as specified in Section 36, Chapter 211, Laws of 1939, or from a retail display bin or container which bears all of the labeling statements which appeared on the original package, and no labels will be required thereon: PROVIDED, That the repackaging referred to shall be done in the presence of the purchaser.

Small parcels which are packed in advance of retail sales or for display purposes and which are taken from a regularly registered and properly labeled mix, may be sold when the container bears the printed or rubber stamped legend: "The contents of this package have been taken from an original registered brand which fully complies with the provisions of Chapter 211, Laws of 1939," in addition to the net weight and the registered brand name of the product.

REGULATION 62. FIBRE CONTENTS OF BY-PRODUCTS

Beet pulp, fruit by-products, brewers or distiller's spent grains, barley malt sprouts, cotton seed meal, linseed meal, coconut meal, soya bean tailings, hemp seed meal and alfalfa leaves and blossoms may be sold singly, or when mixed with molasses, without limitation of fibre content; and they may also be included as ingredients of concentrated commercial feeding stuffs, but only within the fibre and other limitations prescribed by Chapter 211, Laws of 1939, applying to concentrated commercial feeding stuffs.

REGULATION 63. CUSTOM AND SPECIAL MIXES

- A. Custom Mix shall be defined as a feed mixture composed entirely of materials supplied by the customer, except that the mill may supply grain only, whole rolled or ground, not to exceed 50% of the total mixture, and the materials supplied by the customer must be products of farms in the vicinity of the mill doing the mixing. A custom mix shall be exempt from the provisions of Chapter 211, Laws of 1939, relating to feeds, fertilizers and livestock remedies.
- B. Special Mix or Unregistered Mix shall be a mix composed entirely or in part of materials supplied by the mill doing the mixing, except registered brands, and said special or unregistered mixes shall be exempt from registration under Chapter 211, Laws of 1939: PROVIDED, That each and every special mix shall be charged to or paid for by the original purchaser at the time of mixing and a complete and true invoice of such transaction made out as soon as the mixing job is completed, one copy of which shall be delivered to the customer and one copy kept on file in the office of the mill doing the mixing, available to inspection by the duly authorized representatives of the Department of Agriculture of the State of Washington, for a period of not less than six months from date of the transaction. Each such invoice shall show the date of the transaction, the name and address of the customer and the consecutive numbers of the tags used, hereinafter described, and one of which shall be attached to each bag of said special mix. Each invoice covering each special mix shall further give the true name of each ingredient used to make the special mix and the number of pounds of each ingredient supplied by the mill. Each invoice covering special mixes shall also show the minimum protein and maximum fibre of the completed mixture. Each bag or part thereof of each special mix shall bear a tag, one of a series of consecutive numbers, and the numbers of the tags used on each special mix shall be shown on the invoice covering such mix.

Tags to be used for special mixes shall be labeled as follows:

UNREGISTERED MIX

Firm Name

Serial Number

The above tags may be purchased through regular channels but must conform to the specifications listed above.

PROVIDED FURTHER, That under no circumstances shall any stock be carried of any special mix nor shall any sales be made from special mixes, the property of customers or others, left in the possession of the mill.

REGULATION 64.

LIVESTOCK REMEDIES

A. APPLICATION FOR REGISTRATION

Each applicant for registration of a livestock remedy shall furnish for each remedy or brand substantially the following information:

1. Brand or Trade Name
2. Name and address of manufacturer or jobber.
3. Name and address of responsible agent or agents in the State of Washington
4. Ingredients of the remedy.
5. Species of livestock for which it is recommended.
6. Diseases of livestock for which it is recommended.
7. Whether claimed as a cure, a control or a preventative.
8. Other claims made for it in the treatment of livestock.
9. Method by which results are accomplished.
10. Full information as to biological tests and practical tests purporting to justify results claimed.
11. Copies of charts and records of such tests.
12. Whether any changes or alteration has been made in ingredients or formula since such tests were made.
13. A certification that the information furnished is true in all material respects.
14. Signature of applicant.

The applicant for registration of a livestock remedy shall furnish to the Director of Agriculture copies of all labels, retail cartons, circulars, advertising claims and other descriptive material used in connection with the promotion, sale, offering or exposing for sale of each brand of livestock remedy for which registration is required.

The registrant of a livestock remedy, or his authorized agent, shall notify the Director of Agriculture of any changes or proposed changes, during the period of registration, of the labels, retail cartons, circulars, advertising claims or other descriptive material prior to the effective date of such changes.

The registrant of a livestock remedy, or his authorized agent, shall notify the Director of Agriculture of any proposed change in the ingredients of such remedy, or of any proposed change in the formula of such remedy during the period of registration.

REGULATION 65.

CONCENTRATES, MINERALS AND MEDICINE USED IN FEEDS

Materials or products other than those exempted in Section 33, Chapter 211, Laws of 1939, used in any manner as feed for domestic

animals in its original or unmixed form and commonly known as "Concentrates," "Minerals," or "Medicines," shall be registered and tagged in compliance with Chapter 36, Laws of 1939, before being sold, offered for sale or distributed in its original or unmixed form to the consumer in the State of Washington.

Any person selling, offering for sale or distributing any product described herein, whether he be the manufacturer, importer, mixer, distributor, agent or vendor, shall be responsible for the registration and tagging of the same as required by Chapter 36, Laws of 1939, before being sold, offered for sale or distributed in its original or unmixed form to the consumer in the State of Washington.

#### FERTILIZERS AND DEFINITIONS

##### REGULATION 66.

- A. Acidulated Fish Tankage, Acidulated Fish Scrap is the product derived from fish and treated with sulfuric acid.
- B. Activated Sewage Products are those made from sewage freed from grit and coarse solids and aerated after being inoculated with microorganisms. The resulting flocculated organic matter is withdrawn from the tanks, filtered with or without the aid of coagulants, dried, ground and screened.
- C. Agricultural Liming Material is material whose calcium and magnesium content is capable of neutralizing soil acidity.
- D. Ammoniated Superphosphate is a product containing superphosphate and/or dissolved bone and nitrogenous compounds, but without the addition of potash.
- E. Analysis, as applied to fertilizers, shall designate the percentage composition of the product expressed in terms of nitrogen, phosphoric acid, and potash in their various forms.
- F. Ashes from Leached Wood are unleached ashes resulting from burning wood that has been exposed to or digested in water liquid solvent, as in the extraction of dyes, so that a part of the plant food has been dissolved and removed.
- G. Available Phosphoric Acid is the sum of the water-soluble and the citrate-soluble phosphoric acid.
- H. "Basic" Lime Phosphate (Lime-based Superphosphate) is a superphosphate to which liming materials have been added in a quantity at least six per cent (6%) calcium carbonate equivalents in excess of the quantity required to convert all water-soluble phosphate to the citrate-soluble form.
- I. Basic Phosphate Slag is a by-product in the manufacture of steel from phosphatic iron ores. The product shall be finely ground and shall contain no admixture of materials other than what results in the original process of manufacture. It shall contain not less than twelve per cent (12%) of total phosphoric acid ( $P_2O_5$ ), not less than eighty per cent (80%) of which shall be soluble in two per cent (2%) citric acid solution according to the Wagner method of analysis. Any phosphate slag not conforming to this definition shall be designated "Low Grade"
- J. Brand is a term, design or trade-mark used in connection with one or several grades of fertilizers.
- K. Brand Name is a specific designation applied to an individual fertilizer.

- L. Citrate-Soluble ("Reverted") Phosphoric Acid is that part of the total phosphoric acid in a fertilizer that is insoluble in water but soluble in a solution of citrate of ammonia according to the method adopted by the A.O.A.C.
- M. Crude, inert, or slow-acting Nitrogenous Materials are unprocessed organic substances relatively high in nitrogen but having a very low value as plant food and showing a low activity by both the alkaline and neutral permanganate methods below 50% and 80%, respectively.
- N. Cyanamid is a commercial product composed chiefly of calcium cyanamid ( $\text{CaCN}_2$ ), and it shall contain not less than twenty-one per cent (21%) of nitrogen.
- O. Dicalcium Phosphate is a manufactured product consisting chiefly of a dicalcic salt of phosphoric acid.
- P. Dissolved Bone is ground bone or bone meal that has been treated with sulfuric acid.
- Q. Dried Blood is the collected blood of slaughtered animals, dried and ground and containing not less than twelve per cent (12%) of nitrogen in organic forms.
- R. Dried, Pulverized or Shredded Manures are what the name indicates, and not mixtures of manures and other materials.
- S. Fertilizer Grade shall represent the minimum guaranty of its plant food expressed in terms of "Nitrogen (not ammonia)," "Available Phosphoric Acid," and "Water-soluble Potash."
- T. Fish Tankage, Fish Scrap, Dry Ground Fish, Fish Meal Fertilizer Grade is the dried ground product derived from rendered or unrendered fish.
- U. Garbage Tankage is the rendered, dried, and ground product derived from waste household food materials.
- V. Ground Limestone is the product obtained by grinding calcareous or dolomitic limestone. Not less than seventy-five per cent (75%) shall pass a 100-mesh sieve. It shall contain calcium and magnesium carbonates equivalent to not less than ninety per cent (90%) of calcium carbonate.
- W. Ground Raw Bone is dried ground animal bones that have not been previously steamed under pressure.
- X. Ground Shell Lime is the product obtained by grinding the shells of mollusks. Not less than seventy-five per cent (75%) shall pass a 100-mesh sieve. It shall contain calcium and magnesium carbonates equivalent to not less than eighty per cent (80%) of calcium carbonate.
- AA. Ground Shell Marl is the product obtained by grinding natural deposits of shell marl. Not less than seventy-five per cent (75%) shall pass a 100-mesh sieve. It shall contain calcium and magnesium carbonates equivalent to not less than eighty per cent (80%) of calcium carbonate.
- BB. Ground Steamed Bone is ground animal bones that have been previously steamed under pressure.
- CC. Gypsum, Land Plaster, or Crude Calcium Sulfate are products consisting chiefly of calcium sulfate. They may contain twenty per cent (20%) of combined water. (They do not neutralize acid soils).
- DD. High Calcic Products are materials of which ninety per cent (90%) or more of the total calcium and magnesium content consists of calcium oxide.



- EE. High Magnesian Products are materials of which 90% or more of the total calcium and magnesium content consists of calcium oxide.
- FF. Hoof and Horn Meal is processed dried, ground hoofs and horns.
- GG. Hydrated or Slaked Lime is a dry product consisting chiefly of the hydroxide of calcium and oxide-hydroxide of magnesium.
- HH. Kainit is a potash salt containing potassium and sodium chlorides and sometimes sulfate of magnesia with not less than twelve per cent (12%) of potash ( $K_2O$ ).
- II. Leached Wood Ashes are ashes from burned unleached wood with part of their plant food removed by artificial means or by exposure to rains, snows or other solvent.
- JJ. Lime, when applied to liming materials, means either calcium oxide or calcium and magnesium oxides.
- KK. Manganese The Department recommends that either the water-soluble or available manganese in fertilizers be expressed as "Manganese" (Mn).
- LL. Manganese Sulfate The term "Manganese Sulfate," when applied to an ingredient of a mixed fertilizer, shall designate anhydrous manganous sulfate ( $MnSO_4$ ).
- MM. Manure Salts are potash salts containing high percentages of chloride and from twenty per cent (20%) to thirty per cent (30%) of potash ( $K_2O$ ). The term "Double Manure Salts" should be discontinued.
- NN. Mono-Ammonium Phosphate (Fertilizer Grade) is a commercial salt made by combining phosphoric acid with ammonia. It shall contain not less than ten per cent (10%) of nitrogen and not less than forty-six per cent (46%) of available phosphoric acid.
- OO. Muriate of Potash (Commercial Potassium Chloride) is a potash salt containing not less than forty-eight per cent (48%) of potash ( $K_2O$ ), chiefly as chlorides.
- PP. Nitrate of Potash (Commercial Potassium Nitrate) is a salt containing not less than twelve per cent (12%) of nitrogen and forty-four per cent (44%) of potash ( $K_2O$ ).
- QQ. Nitrate of Soda (Commercial Sodium Nitrate) is commercial sodium nitrate containing not less than fifteen per cent (15%) of nitrogen, chiefly as sodium nitrate.
- RR. Peat is partly decayed vegetable matter of natural occurrence. It is composed chiefly of organic matter which contains some nitrogen of low activity.
- SS. Charred Peat is peat artificially dried at a temperature that causes partial decomposition.
- TT. Phosphate Rock is a natural rock containing one or more calcium phosphate minerals of sufficient purity and quantity to permit its use, either directly or after concentration, in the manufacture of commercial products.
- UU. Phosphoric Acid is a term designating phosphorus pentoxide ( $P_2O_5$ ).
- VV. Potash is a term designating potassium oxide ( $K_2O$ ).

- WW. Precipitated Bone Phosphate is a by-product from the manufacture of glue from bones and is obtained by neutralizing the hydrochloric acid solution of processed bone with calcium hydroxide. The phosphoric acid is chiefly present as dicalcium phosphate.
- XX. Precipitated Phosphate is a product consisting mainly of dicalcium phosphate obtained by neutralizing with calcium hydroxide the acid solution of either phosphate rock or processed bone.
- YY. Process Tankages are products made under steam pressure from crude inert nitrogenous materials, with or without the use of acids, for the purpose of increasing the activity of the nitrogen. These products shall be called "Process Tankages" with or without further qualification. The water-insoluble nitrogen in these products shall test at least fifty per cent (50%) active by the alkaline, or eighty per cent (80%) by the neutral permanganate method.
- ZZ. Products secured by heating Calcium Phosphate with Alkali Salts Containing Potash are non-acid phosphates with potash. They are not "Potassium Phosphate."
- Al. Quick Lime, Burned Lime, Caustic Lime, Lump Lime, Unslaked Lime are designations which shall apply to calcined materials, the major part of which is calcium oxide, in natural association with a lesser amount of magnesium oxide, and which is capable of slaking with water.
- El. Sheep Manure -- Wool Waste is the by-product from wool-carding establishments consisting chiefly of sheep manure, seeds, and wool fibre.
- Cl. Soft Phosphate with Colloidal Clay is a very finely divided low-analysis by-product from mining Florida rock phosphate by a hydraulic process in which the colloidal materials settle at points in artificial ponds and basins farthest from the washer, and are later removed after the natural evaporation of the water.
- Dl. Sulfate of Ammonia (Commercial Ammonium Sulfate) is a commercial product composed chiefly of ammonium sulfate. It shall contain not less than twenty and five-tenths per cent (20.5%) of nitrogen.
- El. Sulfate of Potash-Magnesia is a potash salt containing not less than twenty-five per cent (25%) of potash ( $K_2O$ ), nor less than twenty-five per cent (25%) of sulfate of magnesia, and not more than two and one-half per cent (2.5%) of chlorine.
- Fl. Superphosphate is the cured product obtained by mixing rock phosphate with sulfuric or phosphoric acid or with both.
- Gl. Tankage (without qualification) is the rendered, dried, and ground by-product, largely meat and bone from animals (slaughtered or that have died otherwise).
- Hl. Unit of Plant Food is twenty (20) pounds, or one per cent (1%) of a ton.
- Il. Unleached Wood Ashes are ashes from burned unleached wood that have had no part of their plant food removed and that contain four per cent (4%) or more of water-soluble potash ( $K_2O$ ).

- Jl. Waste Lime, By-Product Lime is any industrial waste or by-product containing calcium or calcium and magnesium in forms that will neutralize acids. It may be designated by the prefixation of the name of the industry or process by which it is produced, i. e., gas-house lime, tanners' lime, acetylene lime-waste, lime kiln ashes, calcium silicate, etc.

REGULATION 67.

INTERPRETATIONS

- A. Activity of water-insoluble nitrogen in mixed fertilizers. The alkaline and neutral permanganate methods distinguish between the better and the poorer sources of water-insoluble nitrogen, and do not show the percentage availability of the materials. The available nitrogen of any product can be measured only after carefully conducted vegetation experiments.
1. The methods shall be used on mixed fertilizers containing water-insoluble nitrogen amounting to three-tenths of one per cent (0.3%) or more of the weight of the material. If a total nitrogen exceeds the minimum guaranty and is accompanied by a low activity of the insoluble nitrogen, the over-run shall be taken into consideration in determining the classification of the water-insoluble nitrogen.
  2. The water-insoluble nitrogen in mixed fertilizers showing an activity below fifty per cent (50%) by the alkaline method and also below eighty per cent (80%) by the neutral method shall be classed as inferior. This necessitates the use of both methods, also the provisions as to over-run in "1" before classifying as inferior.
- B. Amount of chlorine permissible in fertilizers in which the potash is claimed as sulfate. The "Chlorine" in mixed fertilizers in which the potash is claimed as sulfate shall not exceed one-half of one per cent (0.5%) more than what is called for in the minimum potash content based on the definition of sulfate of potash as formulated by the Department. Calculate as follows: 0.05 times the percentage of potash found, plus 0.5.
- C. Brand Name. The analysis or grade of a fertilizer must be included with its brand name, and so used by the manufacturer on sacks and in printed literature.
- D. Cyanamide and Urea Nitrogen is synthetic non-protein organic nitrogen.
- E. Fertilizer Formula shall express the quantity and grade of the crude stock materials used in making a fertilizer mixture. For example: 800 pounds of 16% superphosphate, 800 pounds of tankage (7.40 nitrogen and 9.15 total phosphoric acid), and 400 pounds of sulfate of potash-magnesia (twenty-six per cent (26%) potash).
- F. Finely Ground in the definition of basic phosphate slag shall refer to actual size of particles as determined by the use of standard sieves, as follows: seventy per cent (70%) or more shall pass a 100-, and ninety per cent (90%) or more shall pass a 50-mesh sieve.
- G. Lime. This term shall not be used in the registration, labelling or guaranteeing of fertilizers or fertilizing materials unless the lime is in a form or forms to neutralize soil acidity.

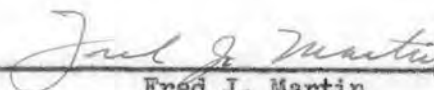
- H. Net Weights appearing on packages of fertilizer, agricultural lime and liming materials shall always mean "net weight."
- I. Order of Terms in mixed fertilizers shall be: nitrogen first, phosphoric acid second, and potash third.
- J. Name of a Fertilizer Material Used as the Brand Name Or Part of the Brand Name of a Mixed Fertilizer. When the name of a fertilizer material is used as a part of the brand name of a mixed fertilizer, as for example, blood, bone or fish, the nitrogen or phosphoric acid shall be derived from or supplied entirely by the material named. When the name of a fertilizer material is used as a brand or as part of a brand and the nitrogen or phosphoric acid is not supplied by the material named, the word "Brand" shall follow the name of the materials. Example: "Fish Brand Fertilizer."
- K. Statement of Guaranties of mixed fertilizers shall be given in whole numbers.

REGULATION 68. TAGGING AND REGISTRATION OF FERTILIZERS

Materials or products other than those accepted by the industry as "fillers," sold in their original or unmixed form for use in the manufacture of commercial fertilizers, fertilizer materials and soil builders shall be registered and tagged in compliance with Chapter 211, Laws of 1939, before being sold, offered for sale or distributed in the State of Washington.

This Order, promulgating rules and regulations and establishing standards of quality and identity, supersedes all inconsistent orders.

Adopted March 1, 1946, at Olympia, Washington.



Fred J. Martin  
Director of Agriculture



Milo M. Palmer, Supervisor  
Division of Feeds, Fertilizers and  
Livestock Remedies

STATE OF WASHINGTON  
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