

FORM OF ORDER AND TRANSMITTAL BY AGENCY HAVING SINGLE HEAD

State of Washington

Department of Agriculture

(agency name)

Administrative Order No. 1903

(1) I, C. Alan Pettibone, director of Agriculture

do promulgate and adopt at Olympia, Washington (place)

the annexed rules relating to:

Chapter 16-213 WAC MISCELLANEOUS AGRICULTURAL COMMODITY INSPECTION STANDARDS

(2) ALTERNATIVE A. Use only for Adoption of Permanent Rules.

This action is taken pursuant to Notice No. filed with the code reviser on These rules shall take effect:
[] thirty days after they are filed with the code reviser pursuant to RCW 34.04.040(2).
[] at a later date, such date being

(2) ALTERNATIVE B. Use only for Adoption of Emergency Rules.

I, C. Alan Pettibone, find that an emergency exists and that this order is necessary for the preservation of the public health, safety, or general welfare and that observance of the requirements of notice and opportunity to present views on the proposed action would be contrary to public interest. A statement of the facts constituting the emergency is:

The Washington State Department of Agriculture has received requests from the industry to certify rapeseed under numerical grade standards with reference to erucic acid and glucosinolate levels which determine end use. Washington State Standards have been prepared to facilitate international trade in rapeseed. Currently national standards do not exist, and grading criteria do not provide for these factors. The state rules have been proposed for permanent adoption with a hearing scheduled on September 15, 1986 in Ritzville, WA.

These rules are therefore adopted as emergency rules to take effect upon filing with the code reviser.

(3) Pursuant to the requirements of RCW 34.04.026 that "every agency shall incorporate the most specific, but in no case omit all, of the following language alternatives when adopting or amending rules" fill in statement (a), (b), or (c) as appropriate:

[x] (a) This rule is promulgated pursuant to RCW Chapter 22.09 RCW and is intended to administratively implement that statute.
[] (b) This rule is promulgated pursuant to RCW which directs that the

(agency) has authority to implement the provisions of (name of act or RCW citation)

[] (c) This rule is promulgated under the general rule-making authority of the (agency)

as authorized in RCW

(4) The undersigned hereby declares that the agency has complied with the provisions of the Open Public Meetings Act (chapter 42.30 RCW), the Administrative Procedure Act (chapter 34.04 RCW) and the State Register Act (chapter 34.08 RCW) in the adoption of these rules.

(5) This order, after being first recorded in the order register of this agency, is herewith transmitted to the Code Reviser for filing pursuant to chapter 34.04 RCW and chapter 1-12 WAC.

APPROVED AND ADOPTED FILED

August 15 19 86

By [Signature]

Director Title

AUG 15 1986

CODE REVISER'S OFFICE WSR 86-17-030

NEW SECTION

WAC 16-213-240 RAPESEED INSPECTION DEFINITIONS. (1) RAPESEED shall be grain which before the removal of dockage consists of fifty percent or more of whole seeds of rapeseed (*Brassica capestris* and/or *Brassica napus*) and may be divided into four categories by erucic acid content in the oil and glucosinolate content in the meal as follows:

(a) Canola (LEAR-LG)-Low erucic acid content/low glucosinolate content.

(b) LEAR-HG Low erucic acid content/high glucosinolate content.

(c) HEAR-LG High erucic acid content/low glucosinolate content.

(d) HEAR-HG High erucic acid content/high glucosinolate content.

(2) DOCKAGE shall be all matter other than rapeseed, also underdeveloped and shriveled rapeseed and small pieces of rapeseed, which can be readily removed from a test portion of the original sample by use of approved devices and handpicking in accordance with the procedures as set down in these standards.

(3) TOTAL CONSPICUOUS ADMIXTURE (INSEPARABLE FOREIGN MATERIAL) shall be all matter other than rapeseed that is easily distinguished by visual inspection and shall include stones up to 0.05%, *Sclerotinia* up to 0.15%, and ergot up to 0.05%.

(4) INCONSPICUOUS ADMIXTURE shall be foreign seed which is difficult to distinguish from rapeseed and shall include, but not be limited to, Wild Mustard (*Brassica kaber*) and Domestic Brown Mustard (*Brassica juncea*).

(5) PERCENTAGES means percentages ascertained by weight except in the case of moisture.

(6) MOISTURE means a percentage ascertained by the air oven or by any device and method which gives equivalent results.

(7) OIL CONTENT shall be the percentage of oil in the rapeseed as determined by the American Oil Chemists' Society Method Ai 3-75, revised 1980, or any approved method yielding comparable results.

(8) ERUCIC ACID CONTENT shall be the percentage of erucic acid in the rapeseed as determined by gas liquid chromatography utilizing The Association of Official Analytical Chemists (AOAC) method 28.066 or any approved method that yields comparable results.

(9) GLUCOSINOLATE CONTENT shall be the micromoles per gram of the oil free, air dry solid component of the rapeseed of one or a mixture of 3-Butenyl Glucosinolate, 4-Pentenyl Glucosinolate, 2-Hydroxyl-3-Butenyl Glucosinolate, and 2-Hydroxyl-4-Pentenyl Glucosinolate as determined by any approved method.

(10) CHLOROPHYLL CONTENT shall be the parts per million of chlorophyll present in the rapeseed as determined by any approved method.

(11) SAMPLE GRADE RAPESEED shall be rapeseed which has a commercially objectionable foreign odor; or is musty, sour, heating or hot; or fails to meet the grade requirements of Washington numerical grades or is otherwise distinctly low quality.

(12) STONES shall be concreted, earthy or mineral matter or other substances of similar hardness that do not disintegrate readily in water.

(13) SCLEROTINIA shall be bodies in the resting stage of the fungal pathogen *Sclerotinia sclerotiorum*.

(14) EARTHY PELLETS shall be dirt bodies remaining in the mechanically cleaned sample of which up to 2.5% shall be added to the dockage. A percentage greater than 2.5% shall cause the rapeseed to grade Washington sample grade.

(15) ERGOT shall be the bodies of the ergot fungus which attacks cereal grains and replaces the kernels with a dark-colored growth. Ergot in excess of 0.05% will cause the rapeseed to grade Washington sample grade.

(16) STAGHEAD RUST (WHITE RUST) shall be the bodies of the staghead fungus which attacks the flowering portions of the rapeseed and mustard plants producing antler-like structures often covered with white or gray powdery spores. Staghead rust shall be considered conspicuous foreign material.

(17) WEEVILY shall be rapeseed that is infested with live weevils or other live insects injurious to stored rapeseed.

(18) BROKEN SEEDS shall be pieces of rapeseed which are sound (not materially damaged). Broken seeds that may be reclaimed by sieving shall not be assessed as dockage.

(19) DAMAGED SEEDS shall include seeds that are distinctly shrunken or shriveled as from frost, discolored as from mold, completely rimed (having a white or icy-like coating caused by moisture), distinctly ground and/or weather damaged, sprouted, distinctly green, heat damaged, or otherwise damaged. Distinctly green and heat damaged shall be determined by crushing the prescribed number of seeds. All other damages shall be determined by handpicking the prescribed portion size.

(20) DISTINCTLY GREEN SEEDS shall be seeds of rapeseed, which after being crushed, are a vivid green color throughout the seed.

(21) GOOD NATURAL COLOR shall be rapeseed which after crushing exhibits a color characteristic of sound rapeseed. Rapeseed that does not exhibit good natural color shall not be graded higher than Washington Number 2.

(22) HEAT DAMAGED SEEDS shall be rapeseed which has been discolored and damaged by excessive respiration or any other heating or drying process and which exhibits a color, after being crushed, from light tan to charcoal black throughout the seed.

(23) DISTINCTLY LOW QUALITY FACTORS FOR RAPESEED shall include but not be limited to rapeseed which contains animal filth, broken glass, castor beans, crotonaria seeds or an unknown foreign substance.

(24) CANOLA shall be the seed of the species Brassica napus or Brassica campestris, the oil components of which seed contains less than two percent erucic acid and the solid components of which seed contains less than thirty micromoles of any one or any mixture of 3-butenyl glucosinolate, 4-pentenyl glucosinolate, 2-hydroxy - 3-butenyl glucosinolate, and 2-hydroxy - 4-pentenyl glucosinolate per gram of air dry, oil free solid as determined by any approved method.

(25) LOW ERUCIC ACID RAPESEED - HIGH GLUCOSINOLATE (LEAR-HG) rapeseed varieties shall contain less than two percent erucic acid in the oil of the rapeseed and more than thirty micromoles per one gram (um/g) glucosinolates in the rapeseed meal.

(26) HIGH ERUCIC ACID RAPESEED - LOW GLUCOSINOLATE (HEAR-LG) rapeseed shall be rapeseed varieties used for production of industrial type oil which shall contain erucic acid levels above forty percent in the oil of the rapeseed and less than thirty micromoles per one gram (um/g) glucosinolates in the meal of the rapeseed.

(27) HIGH ERUCIC ACID RAPESEED - HIGH GLUCOSINOLATE (HEAR-HG) rapeseed shall be rapeseed varieties used for production of industrial type oil which shall contain erucic acid levels above forty percent in the oil of the rapeseed and more than thirty micromoles per one gram (um/g) glucosinolates in the meal of the rapeseed.

NEW SECTION

WAC 16-213-250 RAPESEED INSPECTION PROCEDURES. (1) The determination of dockage shall be on approximately five hundred grams cut from the representative sample.

(a) The Carter Dockage tester shall be set up as follows:

- (i) Set the air control at number five;
- (ii) Set the feed control at number three;
- (iii) Use the number 000 riddle in the riddle carriage;
- (iv) Use the number four sieve in the top sieve carriage;
- (v) Use no sieve in the middle sieve carriage;
- (vi) Use no sieve in the bottom sieve carriage.

(b) Dockage will then consist of:

- (i) Material removed by the Carter Dockage tester (air and riddle);
- (ii) Material removed by hand sieving the material in the bottom catch pan (material through no. 4 sieve) using a 3/64 X 3/8 or 3/64 X

11/32 sieve (thirty strokes on strand sizer - one hundred grams at a time) and then hand sieving the material that passed through these sieves using a .028 X 15/32, .032 X 15/32, .035 X 15/32, or .040 X 15/32 sieve. Select the hand sieve that removes the maximum amount of weed seeds with the minimum loss of rapeseed. The material that remains on top of these sieves will be returned to the rapeseed;

(iii) CONSPICUOUS ADMIXTURE. That material that can be readily removed by handpicking a portion of the mechanically cleaned rapeseed. Conspicuous admixture up to one percent is added to the dockage percentage.

(c) The percentage of dockage will be recorded on the pan ticket to hundredths. The calculation for total dockage shall be the percentage, by weight, of material removed by the Carter Dockage tester and the material removed by hand sieving plus the adjusted percentage of conspicuous admixture (handpicked foreign material).

The adjustment of the percentage of conspicuous admixture will be made by subtracting the percentage of machine and sieve separated dockage (M&SD) from one hundred percent and then multiplying the result by the conspicuous admixture percentage (CA%).

$$(100 - M\&SD) \times CA\% = \text{Adjusted Conspicuous Admixture} \\ + \frac{\text{Machine and Sieve Separated Dockage}}{\text{Total Dockage (in hundredths)}}$$

The percentage of dockage shall be recorded on the certificate to the nearest tenth of a percent with fraction of a tenth disregarded as shown in the following examples:

0.00 to 0.05 percent is expressed as 0.0%.
 0.06 to 0.14 percent is expressed as 0.1%.
 0.15 to 0.25 percent is expressed as 0.2%.
 0.26 to 0.34 percent is expressed as 0.3%, etc.

(2) The determination of conspicuous admixture (handpicked foreign material) shall be made on a representative portion of approximately fifteen grams cut from the mechanically cleaned work sample. The percentage of conspicuous admixture shall be shown on the pan ticket and the inspection certificate to the nearest tenth. Conspicuous admixture up to one percent is added to the total dockage percentage. Conspicuous admixture over one percent will cause the sample to grade Washington sample grade. If the sample grades Washington sample grade due to the percentage of conspicuous admixture, the percentage of conspicuous admixture will not be included in the total dockage.

(3) The determination for moisture shall be made on a representative portion of exactly two hundred sixty-five grams obtained from the representative sample before the removal of dockage. The percentage of moisture shall be shown on the pan ticket (and the inspection certificate) to the nearest tenth of a percent.

(4) The determination of distinctly low quality and Washington sample grade factors shall be made on the basis of the lot as a whole and/or a representative portion of approximately five hundred grams cut from the representative sample before the removal of dockage. Distinctly low quality factors shall include:

(a) ANIMAL FILTH. Rapeseed containing two or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth shall be graded Washington sample grade.

(b) BROKEN GLASS. Rapeseed containing two or more pieces of glass shall be graded Washington sample grade.

(c) CASTOR BEANS. These multicolored bean-like seeds of the castor oil plant have been found to be highly toxic to animal life. Rapeseed containing three or more castor beans shall be graded Washington sample grade.

(d) CROTOLARIA. The seeds of Crotonaria (Crotonaria sp.) are highly toxic to animal life. These seeds can be various colors and are generally "kidney" or "boxing glove" shaped. Rapeseed containing three or more crotolaria seeds shall be graded Washington sample grade.

(e) UNKNOWN FOREIGN SUBSTANCE. Rapeseed containing four or more pieces or an unknown foreign substance shall be graded Washington sample grade. Pelletized material other than feed pellets shall be considered an unknown foreign substance. Feed pellets in rapeseed are considered dockage.

(5) When rapeseed is found to be Washington sample grade on one or more of these factors, this fact and the reasons therefore shall be shown on the pan ticket and the inspection ticket even though the rapeseed may be Washington sample grade on another factor.

(6) STONES. Rapeseed containing more than 0.05% of stones by weight shall be graded Washington sample grade. The determination of stones shall be made on a representative portion of approximately fifteen grams after the removal of machine and sieve separated dockage.

(7) The determination of inconspicuous admixture shall be made on a representative portion of approximately one gram after the removal of dockage.

(8) The determination of distinctly green seeds, heat damaged seeds, and good natural color shall be on a representative portion of approximately fifteen grams obtained from the dockage free sample that has had the visible damage removed. Strips of seeds totaling five hundred shall be crushed and examined for distinctly green seeds and heat damaged seeds. The seeds of Wild Mustard (*Brassica kaber*) and Domestic Brown Mustard (*Brassica juncea*) shall be removed prior to crushing.

(9) The following certification requirements are applicable to rapeseed under these standards:

SEE ILLUSTRATION
(WAC 16-213-250)

86-17-030

DAMAGE | ADMIXTURES OF FOREIGN MATERIAL INCLUDED IN DOCKAGE

GRADE	HEATED	DISTINCTLY GREEN	TOTAL DAMAGE	STONES	OTHER MINERAL MATTER	ERGOT	SCLERO-TINIA	INSECT EXCRETA	TOTAL CONSPICUOUS ADMIXTURE	DOCKAGE	INCONSPICUOUS ADMIXTURE	SOUNDNESS
WASHINGTON NO. 1	0.1%	2.0%	3.0%	0.05%	0.75%	0.05%	0.05%	0.02%	1.0%	2.5%	5.0%	WELL MATURE GOOD NATURAL COLOR, SWEET ODOR
WASHINGTON NO. 2	0.5%	6.0%	10.0%	0.05%	0.75%	0.05%	0.10%	0.02%	1.0%	2.5%	5.0%	FAIRLY WELL MATURE, REASONABLY GOOD COLOR SWEET ODOR
WASHINGTON NO. 3	2.0%	20.0%	20.0%	0.05%	0.75%	0.05%	0.15%	0.02%	1.0%	2.5%	5.0%	MAY HAVE THE NATURAL ODOR ASSOCIATED WITH LOW QUALITY SEED
WASHINGTON SAMPLE GRADE	EXCESS 2.0%	EXCESS 20.0%	EXCESS 20.0%	EXCESS 0.05%	EXCESS 0.75%	EXCESS 0.05%	EXCESS 0.15%	EXCESS 0.02%	EXCESS 1.0%	DOCKAGE IN EXCESS OF 2.5%	EXCESS 5.0%	DISTINCTLY SOUR, RANCID, MUSTY OR OTHER ODORS INDICATING SERIOUS DETERIORATION OR CONTAMINA- TION