United States Department of Agriculture
Agricultural Marketing Service
Federal Grain Inspection Service

Directive

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INSPECTION OF CRAMBE SEED

Contents

1. PURPOSE

This directive establishes procedures under the Agricultural Marketing Act of 1946, as amended, for the factor analysis of crambe seed.

2. REPLACEMENT HIGHLIGHTS

This is a new directive.

3. GENERAL INFORMATION

There are no classes, subclasses, or grades for crambe seed. Inspection is on a factor only basis. The factors analyzed are foreign material and test weight per Winchester bushel.

DEFINITION OF CRAMBE SEED

Crambe seed (*Crambe abyssinicia Hochst*) consist of 50.0 percent or more of whole crambe seed before the removal of foreign material.

Whole kernels are kernels with more then three-fourths of the kernel present.

Basis of Determination. A visual appraisal of the sample is sufficient to determine if it meets the definition of crambe. However, if analysis is necessary, make it before removing foreign material on a representative portion of approximately 25 grams.

4. FOREIGN MATERIAL

Foreign material is all material other than crambe seed that you can remove from the original sample by use of an approved device according to procedures prescribed in the Federal Grain Inspection Service (FGIS) instructions.

Basis of Determination. Foreign material is determined on a representative portion of the original sample of sufficient size to provide approximately 1 1/8 to 1 1/4 quarts of mechanically cleaned crambe seed and approximately 30 grams of crambe seed cut from the mechanically cleaned sample.

Foreign material is determined in two steps: mechanically separated foreign material and handpicked foreign material.

STEP 1. Procedure for determining mechanically separated foreign material using the Carter Dockage Tester:

a. Set air control on 5.

b. Set feed control to 2 ½.

c. Insert No. 2 riddle in the riddle carriage.

d. Insert No. 8 triangle hole sieve in the middle sieve carriage.

e. Insert No. 2 round hole sieve in the bottom sieve carriage.

f. Run sample portion through the Carter Dockage Tester.

g. Monitor the crambe seed removed by the aspirator, making sure the hulls in the air collection pan are empty. If the hulls are not empty and contain mature seeds, adjust the air setting down.

Mechanically separated foreign material is: aspirated material in air collection pan; materials over No. 2 riddle (excluding crambe seed); material that passed through the No. 2 sieve (bottom collection pan).

Combine crambe seed that passed over the No. 8 sieve and over the No. 2 sieve to form the mechanically cleaned sample.

STEP 2. Procedure for determining handpicked foreign material:

a. Cut approximately 30 grams from the mechanically cleaned sample.

b. Handpick the 30-gram mechanically cleaned sample and remove all material other than crambe seed.

Calculating Foreign Material.

STEP 1. (Weight of mechanically separated foreign material ÷ Original sample weight) x 100 = Percent of mechanically separated foreign material.

STEP 2. (100 – Percent mechanically separated foreign material) ÷ 100 = Change of base factor.

STEP 3. (Weight of handpicked foreign material ÷ Weight of handpicked portion) x 100 = Percent of handpicked foreign material.

STEP 4. (Percent of handpicked foreign material) x (Change of base factor) = Adjusted percentage of handpicked foreign material.

STEP 5. Percent of mechanically separated foreign material + Adjusted percentage of handpicked foreign material = Percent of foreign material.

Certification. Show the percentage of foreign material on the work record and on the certificate to the nearest tenth percent.

6. TEST WEIGHT

Test weight is the weight per Winchester bushel (2,150.42 cubic inches) as determined using an approved device according to procedures prescribed in FGIS instructions.

Basis of Determination. Determine test weight after the removal of mechanically separated foreign material on a portion of sufficient quantity to overflow the kettle and before the removal of handpicked foreign material.

The procedures for performing test weight determination are described in book II, chapter 1, section 1.11 of the Grain Inspection Handbook.

Certification. Record test weight results on the work record as displayed on the electronic scale or in whole and tenth pounds to the nearest tenth pound. Record the test weight on the certificate in whole and tenth pounds to the nearest tenth pound.

7. CERTIFICATION

Certify analysis of crambe seed on a commodity inspection certificate (FGIS-993). A lot inspection certificate is issued for those lots that are officially sampled. A submitted sample certificate (FGIS-994) is issued for a sample submitted by an applicant or their agent.