

a head (vertical distance between upper level of water and outlet of glass tube) of 152 cm (60 in.), delivered through a glass tube 7.6 cm (3 in.) long and 3 mm ($\frac{1}{8}$ in.) inside diameter inserted into a rubber tube of 6 mm ($\frac{1}{4}$ in.) inside diameter. Wash the pulpy portion of the material through the screen and continue washing until the remaining fibrous material, moistened with phenolphthalein solution, does not show any red color after standing 5 minutes. Again wash to remove phenolphthalein. Dry the screen containing the fibrous material for 2 hours at 100 °C, cool, weigh, and deduct weight of screen. Divide the weight of fibrous material by the weight of combined deseeded pods, trimmings, and strings and multiply by 100 to obtain the percentage of fibrous material.

(ix) If the drained weight recorded in paragraph (b)(2)(i) of this section was less than 340 g (12 oz.), open and examine separately for extraneous material, as directed in paragraph (b)(2)(iv) of this section, additional containers until a total of not less than 340 g (12 oz.) of drained material is obtained. To determine the number of pieces of extraneous vegetable material per 340 g (12 oz.) of drained weight, total the number of pieces of extraneous vegetable material found in all containers opened, divide this sum by the sum of the drained weights in these containers and multiply by 340.

(3) Determine compliance as specified in §155.3(b) except that a lot shall be deemed to be in compliance for extraneous plant material based on an average of all containers examined.

(4) If the quality of the canned green beans or canned wax beans falls below the standard of quality prescribed by paragraph (b)(1) of this section, the label shall bear the general statement of substandard quality specified in §130.14(a) of this chapter, in the manner and form therein specified; but in lieu of the words prescribed for the second line inside the rectangle the following words may be used, when the quality of canned green beans or canned wax beans falls below the standard in one only of the following respects:

(i) "Excessive number very short pieces", if the canned green beans or

canned wax beans fail to meet the requirements of paragraph (b)(1)(i) of this section.

(ii) "Excessive number blemished units", if they fail to meet the requirements of paragraph (b)(1)(iv) of this section.

(iii) "Excessive number unstemmed units", if they fail to meet the requirements of paragraph (b)(1)(v) of this section.

(iv) "Excessive foreign material", if they fail to meet the requirements of paragraph (b)(1)(vi) of this section.

[42 FR 14449, Mar. 15, 1977, as amended at 42 FR 30359, 30360, June 14, 1977; 45 FR 43398, June 27, 1980; 47 FR 11831, Mar. 19, 1982; 49 FR 10101, Mar. 19, 1984; 57 FR 34245, Aug. 4, 1992; 58 FR 2882, Jan. 6, 1993; 63 FR 14035, Mar. 24, 1998]

§ 155.130 Canned corn.

(a) *Identity*—(1) *Definition*. Canned sweet corn is the product prepared from clean, sound kernels of sweet corn packed with a suitable liquid packing medium which may include water and the creamy component from corn kernels. The tip caps are removed. The product is of the optional styles specified in paragraph (a)(2) of this section. It may contain one, or any combination of two or more, of the optional ingredients set forth in paragraph (a)(3) of this section. Such food is processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

(2) *Styles*. The optional styles referred to in paragraph (a)(1) of this section consist of succulent sweet corn of the yellow (golden) or white color type, conforming to *Zea mays* L. having the sweet corn characteristic as follows:

(i) Whole kernel or whole grain or cut kernel consisting of whole or substantially whole cut kernels packed with a liquid medium.

(ii) Cream style consisting of whole or partially whole cut kernels packed in a creamy component from the corn kernels and other liquid or other ingredients to form a product of creamy consistency.

(3) *Optional ingredients*. The following safe and suitable optional ingredients may be used:

(i) Salt.

(ii) Monosodium glutamate.

- (iii) Disodium inosinate.
- (iv) Disodium guanylate.
- (v) Hydrolyzed vegetable protein.
- (vi) Autolyzed yeast extract.
- (vii) Nutritive carbohydrate sweeteners.
- (viii) Spice.
- (ix) Flavoring (except artificial).
- (x) Citric acid.
- (xi) Starch or food starch-modified in cream style corn when necessary to ensure smoothness.
- (xii) Seasonings and garnishes.

(a) Mint leaves.

(b) Pieces of green peppers or red peppers, or mixtures of both, either of which may be sweet or hot and may be dried, or other vegetables, not exceeding 15 percent by weight of the finished food.

(c) Lemon juice or concentrated lemon juice.

(d) Butter or margarine in a quantity not less than 3 percent by weight of the finished food. When butter or margarine is added, emulsifiers or stabilizers, or both, may be added. When butter or margarine is added, no spice, or flavoring simulating the color or flavor imparted by butter or margarine is used.

(4) *Labeling.* The name of the food is "corn" or "sweet corn" or "sugar corn" and shall include a declaration of any flavoring that characterizes the product as specified in §101.22 of this chapter and a declaration of any spice, seasoning or garnishing that characterizes the product; for example, "With added spice", "Seasoned with red peppers", "Seasoned with butter". The name of the food shall also include the following:

(i) The optional style of the corn ingredient as specified in paragraph (a)(2) of this section.

(ii) The words "vacuum pack" or "vacuum packed" when the corn ingredient is as specified in paragraph (a)(2)(i) of this section and the weight of the liquid in the container, as determined by the method prescribed in paragraph (b)(2)(i) of this section, is not more than 20 percent of the net weight, and the container is closed under conditions creating a high vacuum in the container.

(iii) The color type used only when the product consists of white corn.

(iv) The color type used only when the product consists of white corn.

(5) *Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

(b) *Quality.* (1) The standard of quality for canned corn is as follows:

(i) When tested by the method prescribed in paragraph (b)(2) of this section, canned whole-kernel corn (paragraph (a)(2)(i) of this section):

(a) Contains not more than seven brown or black discolored kernels or pieces of kernel per 400 g. (14 ounces) of drained weight;

(b) Contains not more than 1 cubic centimeter of pieces of cob for each 400 g. (14 ounces) of drained weight;

(c) Contains not more than 7 square centimeters (1.1 square inch) of husk per 400 g. (14 ounces) of drained weight; and

(d) Contains not more than 180 mm. (7 inches) of silk per 28 g. (1 ounce) of drained weight.

(ii) When tested by the method prescribed in paragraph (b)(3) of this section, canned cream style corn (paragraph (a)(2)(ii) of this section):

(a) Contains not more than 10 brown or black discolored kernels or pieces of kernel per 600 g. (21.4 ounces) of net weight;

(b) Contains not more than 1 cubic centimeter of pieces of cob per 600 g. (21.4 ounces) of net weight;

(c) Contains not more than 7 square centimeters (1.1 square inch) of husk per 600 g. (21.4 ounces) of net weight;

(d) Contains not more than 150 mm. (6 inches) of silk for each 28 g. (1 ounce) of net weight; and

(e) Has a consistency such that the average diameter of the approximately circular area over which the prescribed sample spreads does not exceed 30.5 cm. (12 inches), except that when the washed drained material contains more than 20 percent of alcohol-insoluble solids, the average diameter of the approximately circular area over which the prescribed sample spreads does not exceed 25.4 cm. (10 inches).

(iii)(a) The weight of the alcohol-insoluble solids of whole-kernel corn (paragraph (a)(2)(i) of this section) does not exceed 27 percent of the drained

weight, when tested by the method prescribed in paragraph (b)(2) of this section.

(b) The weight of the alcohol-insoluble solids of the washed drained material of cream style corn (paragraph (a)(2)(ii) of this section) does not exceed 27 percent of the drained weight of such material, when tested by the method prescribed in paragraph (b)(3) of this section.

(2) The method referred to in paragraph (b)(1) of this section for testing whole-kernel corn (paragraph (a)(2)(i) of this section) is as follows:

(i) Determine the gross weight of the container. Open and distribute the contents of the container over the meshes of a U.S. No. 8 circular sieve which has previously been weighed. The diameter of the sieve is 20.3 cm. (8 inches) if the quantity of the contents of the container is less than 1.36 kg. (3 pounds), and 30.5 cm. (12 inches) if such quantity is 1.36 kg. (3 pounds) or more. The bottom of the sieve is woven-wire cloth that complies with the specifications for such sieve set forth in the "Definitions of Terms and Explanatory Notes" prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed. (1980), Table 1, "Nominal Dimensions of Standard Test Sieves (U.S.A. Standard Series)," under the heading "Definitions of Terms and Explanatory Notes," which is incorporated by reference. Copies may be obtained from the Association of Official Analytical Chemists International, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877-2504, or may be examined at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Without shifting the material on the sieve, so incline the sieve at approximately 17-20° angle to facilitate drainage. Two minutes from the time drainage begins, weigh the sieve and the drained material. Record, in g. (ounces), the weight so found, less the weight of the sieve, as the drained weight. Dry and weigh the empty container and subtract this weight from the gross weight to obtain the net weight. Calculate the percent of drained liquid in the net weight.

(ii) Pour the drained material from the sieve into a flat tray and spread it

in a layer of fairly uniform thickness. Count, but do not remove, the brown or black discolored kernels or pieces of kernel and calculate the number per 400 g. (14 ounces) of drained material. Remove pieces of silk more than 12.7 mm. (one-half inch) long, husk, cob, and any pieces of material other than corn. Measure the aggregate length of such pieces of silk and calculate the length of silk per 28 g. (1 ounce) of drained weight. Spread the husk flat, measure its aggregate area, and calculate the area of husk per 400 g. (14 ounces) of drained weight. Place all pieces of cob under a measured amount of water in a cylinder which is so graduated that the volume can be measured to 0.1 cubic centimeter. Take the increase in volume as the aggregate volume of the cob and calculate the volume of cob per 400 g. (14 ounces) of drained weight.

(iii) Comminute representative 100 g. sample of the drained corn from which the silk, husk, cob, and other material which is not corn (i.e., peppers) have been removed. An equal amount of water is used to facilitate this operation. Weigh to nearest 0.01 g. a portion of the comminuted material equivalent to approximately 10 g. of the drained corn into a 600 cubic centimeter beaker. Add 300 cubic centimeters of 80 percent alcohol (by volume), stir, cover beaker, and bring to a boil. Simmer slowly for 30 minutes. Fit a Buchner funnel with a previously prepared filter paper of such sizes that its edges extend 12.7 mm. (one-half inch) or more up the vertical sides of the funnel. The previous preparation of the filter paper consists of drying it in a flat-bottomed dish for 2 hours at 100 °C, covering the dish with a tight fitting cover, cooling it in a desiccator, and promptly weighing to the nearest 0.001 g. After the filter paper is fitted to the funnel, apply suction and transfer the contents of the beaker to the funnel. Do not allow any of the material to run over the edge of the paper. Wash the material on the filter with 80 percent alcohol (by volume) until the washings are clear and colorless. Transfer the filter paper with the material retained thereon to the dish used in preparing the filter paper. Dry the material in a ventilated oven, without covering the

dish, for 2 hours at 100 °C. Place the cover on the dish, cool it in a desiccator, and promptly weigh to the nearest 0.001 g. From this weight subtract the weight of the dish, cover, and paper as previously found. Calculate the remainder to percentage.

(3) The method referred to in paragraph (b)(1) of this section for testing cream-style corn (paragraph (a)(2)(ii) of this section) is as follows:

(i) Allow the container to stand at least 24 hours at a temperature of 68 °F to 85 °F. Determine the gross weight, open, transfer the contents into a pan, and mix thoroughly in such a manner as not to incorporate air bubbles. (If the net contents of a single container is less than 510 g. (18 ounces) determine the gross weight, open, and mix the contents of the least number of containers necessary to obtain 510 g. (18 ounces). Fill level full a hollow, truncated cone so placed on a polished horizontal plate as to prevent leakage. The cone has an inside bottom diameter of 7.62 cm. (3 inches), inside top diameter of 5.08 cm. (2 inches), and height of 12.30 cm. ($4\frac{27}{32}$ inches). As soon as the cone is filled, lift it vertically. Determine the average of the longest and shortest diameters of the approximately circular area on the plate covered by the sample 30 seconds after lifting the cone. Dry and weigh each empty container and subtract the weight so found from the gross weight to obtain the net weight.

(ii) Transfer the material from the plate, cone, and pan onto a U.S. No. 8 sieve as prescribed in paragraph (b)(2)(i) of this section. The diameter of the sieve is 20.3 cm. (8 inches) if the quantity of the contents of the container is less than 1.36 kg. (3 pounds), and 30.5 cm. (12 inches) if such quantity is 1.36 kg. (3 pounds) or more. Set the sieve in a pan. Add enough water to bring the level within 9.53 mm. (three-eighth inch) to 6.35 mm. (one-fourth inch) of the top of the sieve. Gently wash the material on the sieve by combined up-and-down and circular motion for 30 seconds. Repeat washing with a second portion of water. Remove sieve from pan, incline to facilitate drainage, and drain for 2 minutes.

(iii) From the material remaining on the U.S. No. 8 sieve, count, but do not

remove, the brown or black discolored kernels or pieces of kernel and calculate the number per 600 g. (21.4 ounces) of net weight. Remove pieces of silk more than 12.7 mm. (one-half inch) long, husk, cob, and other material which is not corn (i.e., peppers). Measure aggregate length of such pieces of silk and calculate the length per 28 g. (ounce) of net weight. Spread the husk flat and measure its aggregate area and calculate the area per 600 g. (21.4 ounces) of net weight. Place all pieces of cob under a measured amount of water in a cylinder which is so graduated that the volume may be measured to 0.1 cubic centimeter. Take the increase in volume as the aggregate volume of the cob and calculate the volume of cob per 600 g. (21.4 ounces) of net weight. Take a representative 100 g. sample of the material remaining on the U.S. No. 8 sieve (if such material weighs less than 100 g. take all of it) and determine the alcohol-insoluble solids as prescribed in paragraph (b)(2)(iii) of this section for whole kernel corn.

(4) Determine compliance as specified in § 155.3(b).

(5) If the quality of canned corn falls below the standard prescribed in paragraph (b)(1) of this section, the label shall bear the general statement of substandard quality specified in § 130.14(a) of this chapter, in the manner and form therein specified; however, if the quality of the canned corn falls below standard with respect to only one of the factors of quality specified by paragraphs (b)(1)(i) (a) to (d) of this section, or by paragraphs (b)(1)(ii) (a) to (e) of this section, there may be substituted for the second line of such general statement of substandard quality, "Good food—not high grade", a new line as specified after the corresponding subdivision designation of paragraph (b)(1) of this section, which the canned corn fails to meet:

- (i)(a) or (ii)(a) "Excessive discolored kernels".
- (i)(b) or (ii)(b) "Excessive cob".
- (i)(c) or (ii)(c) "Excessive husk".
- (i)(d) or (ii)(d) "Excessive silk".
- (ii)(e) "Excessively liquid".

(c) *Fill of container.* (1) The standard of fill of container for canned corn is:

(i) Except in the case of vacuum pack corn the fill of the corn ingredient and packing medium, as determined by the general method for fill of container prescribed in § 130.12(b) of this chapter, is not less than 90 percent of the total capacity of the container.

(ii) In whole kernel corn, the drained weight of the corn ingredient, determined by the procedure set forth in § 155.3, shall not be less than 61 percent of the water capacity of the container.

(2) Determine compliance as specified in § 155.3(b).

(3) If canned corn falls below the standard of fill of container prescribed in paragraphs (c)(1) and (2) of this section, the label shall bear the general statement of substandard fill specified in § 130.14(b) of this chapter, in the manner and form therein specified.

[42 FR 14449, Mar. 15, 1977, as amended at 45 FR 43398, June 27, 1980; 47 FR 11831, 11832, Mar. 19, 1982; 49 FR 10101, Mar. 19, 1984; 54 FR 24895, June 12, 1989; 58 FR 2882, Jan. 6, 1993; 63 FR 14035, Mar. 24, 1998]

§ 155.131 Canned field corn.

(a) *Identity.* (1) Canned field corn conforms to the definition and standard of identity, and is subject to the requirements for label declaration of ingredients, prescribed for canned corn by § 155.130(a), except that the corn ingredient consists of succulent field corn or a mixture of succulent field corn and succulent sweet corn.

(2) The name of the food conforms to the name specified in § 155.130(a)(5), except that the words "Corn", "Sweet corn", and "Sugar corn" are replaced by the words "Field corn", and the term "Golden field corn" is not used.

(b) [Reserved]

(c) *Fill of container.* Canned cream-style field corn conforms to the standard of fill of container and label statement of substandard fill prescribed for canned cream-style corn by § 155.130(c).

[42 FR 14449, Mar. 15, 1977, as amended at 58 FR 2882, Jan. 6, 1993]

§ 155.170 Canned peas.

(a) *Identity—(1) Definition.* Canned peas is the food prepared from fresh or frozen succulent seeds of the pea plant of the species *Pisum sativum* L. but excluding the subspecies *macrocarpum*. Only sweet wrinkled varieties, smooth-

skin varieties, or hybrids thereof may be used. The product is packed with water or other suitable aqueous liquid medium to which may be added one or more of the other optional ingredients set forth in paragraph (a)(2) of this section. Such food is sealed in a container and, before or after sealing, is so processed by heat as to prevent spoilage.

(2) *Optional ingredients.* In addition to the optional packing media provided for in paragraph (a)(1) of this section, the following safe and suitable optional ingredients may be used:

(i) Salt.

(ii) Monosodium glutamate.

(iii) Disodium inosinate.

(iv) Disodium guanylate.

(v) Hydrolyzed vegetable protein.

(vi) Autolyzed yeast extract.

(vii) One or any combination of two or more of the dry or liquid forms of sugar, invert sugar sirup, dextrose, glucose sirup, and fructose.

(viii) Spice.

(ix) Flavoring (except artificial).

(x) Color additives.

(xi) Calcium salts, the total amount of which added to firm the peas shall not result in more than 350 milligrams/kilogram (0.01 ounce/2.2 pounds) of calcium in the finished food.

(xii) Magnesium hydroxide, magnesium oxide, magnesium carbonate, or any mixture or combination of these in such quantity that the pH of the finished canned peas is not more than 8, as determined by the glass electrode method for the hydrogen ion concentration.

(xiii) Seasonings and garnishes:

(a) Pieces of green or red peppers or mixtures of both, either of which may be dried, or other vegetables not exceeding in total 15 percent of the drained weight of the finished food.

(b) Lemon juice or concentrated lemon juice.

(c) Mint leaves.

(d) Butter or margarine in a quantity not less than 3 percent by weight of the finished food, or other vegetable or animal fats or oils in a quantity not less than 2.4 percent by weight of the finished foods. When butter, margarine, or other vegetable or animal fats or oils are added, emulsifiers or stabilizers or both may be added, but no color, spice, or flavoring simulating the color or