

with or without the use of heat or vacuum, but not to the point of drying. Such concentrate is canned or frozen without the addition of sugar or other sweetening agents and is identified to show or permit the calculation of the weight of the properly prepared fresh fruit used to produce any given quantity of such concentrate. The volatile flavoring material or essence from such fruits may be captured during concentration and separately concentrated for subsequent addition to the concentrated fruit either directly or during manufacture of the preserve or jam, in the original proportions present in the fruit.

(4) The weight of any optional saccharine ingredient means the weight of the solids of such ingredient.

(5) The soluble-solids content of the finished jam or preserve is not less than 65 percent, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed. (1980), section 22.024, under "Soluble Solids by Refractometer in Fresh and Canned Fruits, Jellies, Marmalades, and Preserves—Official Final Action," which is incorporated by reference, except that no correction is made for water-insoluble solids. Copies may be obtained from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(e)(1) The name of each preserve or jam for which a definition and standard of identity is prescribed by this section is as follows:

(i) If the fruit ingredient is a single fruit, the name is "Preserve" or "Jam", preceded or followed by the name or synonym whereby such fruit is designated in paragraph (b) of this section.

(ii) If the fruit ingredient is a combination of two, three, four, or five fruits, the name is "Preserve" or "Jam", preceded or followed by the words "Mixed fruit" or by the names or

synonyms whereby such fruits are designated in paragraph (b) of this section, in the order of predominance, if any, of the weights of such fruits in the combination.

(2) *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, except that:

(i) The name(s) of the fruit or fruits used may be declared without specifying the particular form of the fruit or fruits used.

(ii) When the optional ingredients listed in paragraphs (c) (3), (4), and (5) of this section are declared on the label, the declaration may be followed by the statement "used as needed" on all preserves or jams to which they are customarily, but not always, added to compensate for natural variations in the fruit ingredients used.

[42 FR 14445, Mar. 15, 1977, as amended at 47 FR 11831, 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]

PART 155—CANNED VEGETABLES

Subpart A—General Provisions

Sec.

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AUTHORITY: 21 U.S.C. 321, 341, 343, 348, 371, 379e.

SOURCE: 42 FR 14449, Mar. 15, 1977, unless otherwise noted.

Subpart A—General Provisions

§ 155.3 Definitions.

For the purposes of this part:

§ 155.3

21 CFR Ch. I (4–1–25 Edition)

(a) The procedure for determining drained weight is set forth in the “Official Methods of Analysis of the Association of Official Analytical Chemists,” 13th Ed. (1980), sections 32.001–32.003, which is incorporated by reference. Copies are available from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(b) *Compliance* means the following: Unless otherwise provided in a standard, a lot of canned vegetables shall be deemed in compliance for the following factors, to be determined by the sampling and acceptance procedure as provided in paragraph (c) of this section, namely:

(1) *Quality*. The quality of a lot shall be considered acceptable when the number of defectives does not exceed the acceptance number (c) in the sampling plans.

(2) *Fill of container*. A lot shall be deemed to be in compliance for fill of container (packing medium and vegetable ingredient) when the number of defectives does not exceed the acceptance number (c) in the sampling plans.

(3) *Drained weight*. A lot shall be deemed to be in compliance for drained weight based on the average value of all samples analyzed according to the sampling plans.

(c) *The sampling and acceptance procedure* means the following:

(1) *Definitions*—(i) *Lot*. A collection of primary containers or units of the same size, type, and style manufactured or packed under similar conditions and handled as a single unit of trade.

(ii) *Lot size*. The number of primary containers or units in the lot.

(iii) *Sample size*. The total number of sample units drawn for examination from a lot.

(iv) *Sample unit*. A container, a portion of the contents of a container, or a composite mixture of product from small containers that is sufficient for the examination or testing as a single

unit. For fill of container, the sample unit shall be the entire contents of the container.

(v) *Defective*. Any sample unit shall be regarded as defective when the sample unit does not meet the criteria set forth in the standards.

(vi) *Acceptance number (c)*. The maximum number of defective sample units permitted in the sample in order to consider the lot as meeting the specified requirements.

(vii) *Acceptable quality level (AQL)*. The maximum percent of defective sample units permitted in a lot that will be accepted approximately 95 percent of the time.

(2) *Sampling plans*.

Lot size (primary containers)	Size of container	
	<i>n</i> ¹	<i>c</i> ²
NET WEIGHT EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
4,800 or less	13	2
4,801 to 24,000	21	3
24,001 to 48,000	29	4
48,001 to 84,000	48	6
84,001 to 144,000	84	9
144,001 to 240,000	126	13
Over 240,000	200	19
NET WEIGHT GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
2,400 or less	13	2
2,401 to 15,000	21	3
15,001 to 24,000	29	4
24,001 to 42,000	48	6
42,001 to 72,000	84	9
72,001 to 120,000	126	13
Over 120,000	200	19
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
600 or less	13	2
601 to 2,000	21	3
2,001 to 7,200	29	4
7,201 to 15,000	48	6
15,001 to 24,000	84	9
24,001 to 42,000	126	13
Over 42,000	200	19

¹ *n* = number of primary containers in sample.

² *c* = acceptance number.

(d) *Strength and redness of color* means at least as much red as is obtained by comparison of the prepared product, with the blended color produced by spinning a combination of the following concentric Munsell color discs of equal diameter, or the color equivalent of such discs:

Disc 1—Red (5R 2.6/13) (glossy finish)
 Disc 2—Yellow (2.5 YR 5/12) (glossy finish)
 Disc 3—Black (N1) (glossy finish)
 Disc 4—Grey (N4) (mat finish)

Such comparison is to be made in full diffused daylight or under a diffused light source of approximately 2691 lux (250 footcandles) and having a spectral quality approximating that of daylight under a moderately overcast sky, with a correlated color temperature of 7,500 degrees Kelvin ± 200 degrees. With the light source directly over the disc and product, observation is made at an angle of 45 degrees from a distance of about 24 inches from the product. Electronic color meters may be used as an alternate means of determining the color of tomato concentrates. Such meters shall be calibrated to indicate that the color of the product is as red or more red than that produced by spinning the Munsell color discs in the combination as set out above.

(e) *Tomato soluble solids* means the sucrose value as determined by the method prescribed in the "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed., 1980, sections 32.014 to 32.016 and 52.012, under the headings "Soluble Solids in Tomato Products Official Final Action" and "Refractive Indices (n) of Sucrose Solutions at 20°," which is incorporated by reference. Copies are available from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or are available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. If no salt has been added, the sucrose value obtained from the referenced tables shall be considered the percent of tomato soluble solids. If salt has been added either intentionally or through the application of the acidified break, determine the percent of such added sodium chloride as specified in paragraph (f) of this section. Subtract the percentage so found from the percentage of total soluble solids found (sucrose value from the refractive index tables) and multiply the difference by 1.016. The resultant value is considered the percent of "tomato soluble solids."

(f) *Salt* means sodium chloride, determined as chloride and calculated as

percent sodium chloride, by the method prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed., 1980, sections 32.025 to 32.030, under the heading "Method III (Potentiometric Method)," which is incorporated by reference.

[45 FR 43398, June 27, 1980, as amended at 47 FR 11831, Mar. 19, 1982; 48 FR 3954, Jan. 28, 1983; 54 FR 24895, June 12, 1989; 63 FR 14035, Mar. 24, 1998]

Subpart B—Requirements for Specific Standardized Canned Vegetables

§ 155.120 Canned green beans and canned wax beans.

(a) *Identity*—(1) *Definition*. Canned green beans and canned wax beans are the foods prepared from succulent pods of fresh green bean or wax bean plants conforming to the characteristics of *Phaseolus vulgaris* L. and *Phaseolus coccineus* L. The optional color and varietal types and styles of the bean ingredient are set forth in paragraph (a)(2) of this section. 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)(3) of this section. Such food is so processed by heat, in an appropriate manner before or after being sealed in a container, as to prevent spoilage.

(2) *Optional color and varietal types and styles of pack*. The optional color and varietal types and styles of the bean ingredient referred to in paragraph (a)(1) of this section are:

(i) *Optional color types*. The beans shall be one of the following distinct color types: (a) Green; or (b) Wax.

(ii) *Optional varietal types*—(a) *Round*. Beans having a width not greater than $1\frac{1}{2}$ times the thickness of the bean; or

(b) *Flat*. Beans having a width greater than $1\frac{1}{2}$ times the thickness of the bean.

(iii) *Optional styles of pack*—(a) *Whole*. Whole pods of any length.

(b) *Shoestring or sliced lengthwise or French style*. Pods sliced lengthwise.

(c) *Cuts*. Transversely cut pods not less than 19 mm (0.75 in) long as measured along the longitudinal axis, which

may contain the shorter end pieces that result from cutting such pods.

(d) *Short cuts.* Pieces of pods cut transversely of which 75 percent, by count, or more are less than 19 mm (0.75 in) in length and not more than 1 percent by count are more than 32 mm (1¼ in) in length.

(e) *Diagonal cuts.* Pods cut in lengths as specified in paragraph (a)(2)(iii)(c) of this section, except the pods are cut at an angle approximately 45° to the longitudinal axis.

(f) *Diagonal short cuts.* Pods cut in lengths as specified in paragraph (a)(2)(iii)(d) of this section, except the pods are cut at an angle approximately 45° to the longitudinal axis.

(g) *Mixture.* Any mixture of two or more of the styles specified in paragraph (a)(2)(iii)(a) to (f), inclusive, of this section.

(3) *Optional ingredients.* In addition to the optional packing media listed in paragraph (a)(1) of this section and the optional types and styles of beans ingredient listed in paragraph (a)(2) 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) Nutritive carbohydrate sweeteners.
- (viii) Spice.
- (ix) Flavoring (except artificial).
- (x) 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 by weight of the finished product.
- (xi) Vinegar.
- (xii) Lemon juice or concentrated lemon juice.
- (xiii) Glucono delta-lactone.
- (xiv) Mint leaves.
- (xv) Butter or margarine in a quantity of not less than 3 percent by weight of the finished product. When butter or margarine is added, emulsifiers or stabilizers, or both, may be added. No spice or flavoring simulating the color or flavor imparted by butter or margarine is used.

(4) *Labeling.* (i) The name of the food is “green beans” or “wax beans” as appropriate. Wax beans may be additionally designated “golden” or “yellow”.

(ii) The following shall be included as part of the name or in conjunction with the name of the food:

(a) A declaration of any flavoring that characterizes the product as specified in § 101.22 of this chapter.

(b) A declaration of any spice, seasoning, or garnishing that characterizes the product, e.g., “with added spice”, or, in lieu of the word “spice”, the common name of the spice, e.g., “seasoned with green peppers”.

(c) The words “vacuum pack” or “vacuum packed” when 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 25 percent of the net weight, and the container is closed under conditions creating a high vacuum in the container.

(d) The name of the optional style of bean ingredient as set forth in paragraph (a)(2)(iii) of this section or, if a product consists of a mixture of such styles, the words “mixture of ” the blank to be filled in with the names of the styles present, arranged in the order of decreasing predominance, if any, by weight of such ingredients. If the product consists of whole beans and the pods are packed parallel to the sides of the container, the word “whole” may be preceded or followed by the words “vertical pack”, or if the pods are cut at both ends and are of substantially equal lengths, the words “asparagus style” may be used in lieu of the words “vertical pack”. If the product consists of short cuts or diagonal short cuts, a numerical expression indicating the predominate length of cut in the finished food may be used in lieu of the word “short”, e.g., “½ inch cut”.

(iii) The following may be included in the name of the food:

(a) The word “stringless” where the beans are in fact stringless.

(b) The name of the optional varietal type as specified in paragraph (a)(2)(ii) of this section, or the specific varietal name, e.g., “Blue Lake Green Beans”, or both.

(iv) If a term designating diameter is used, it shall be supported by an exact graphic representation of the cross section of the bean pod or by a statement of the maximum diameter in common or decimal fractions of an inch and, optionally, by the millimeter equivalent stated parenthetically. The diameter of a whole, cut, diagonal cut, or short cut is determined by measuring the thickest portion of the pod at the shorter diameter of the bean perpendicular to the longitudinal axis.

(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) When tested by the method prescribed in paragraph (b)(2) of this section:

(i) In the case of cut beans and diagonal cut beans under paragraphs (a)(2)(iii) (c) and (d) of this section and mixtures of two or more optional forms under paragraph (a)(2)(iii)(g) of this section, not more than 60 units per 340 g (12 oz) drained weight are less than 13 mm (0.50 in) long: *Provided*, That where the number of units per 340 g (12 oz) drained weight exceeds 240, not more than 25 percent by count of the total units are less than 13 mm (0.50 in) long.

(ii) In case there are present pods or pieces of pods 10.7 mm (²⁷/₆₄-inch) or more in diameter, there are not more than 12 strings per 340 gm (12 ounces) of drained weight which will support 227 gm (one-half pound) for 5 seconds or longer.

(iii) The deseeded pods contain not more than 0.15 percent by weight of fibrous material.

(iv) There are not more than 10 percent by weight of blemished units of which amount not more than one-half may be materially damaged by insect or pathological injury. A unit is considered blemished when the aggregate blemished area exceeds the area of a circle 3 mm (¹/₈ in) in diameter. Materially damaged means that the unit is damaged to the extent that the appearance or eating quality of the unit is seriously affected.

(v) There are not more than 8 unstemmed units per 340 g (12 oz) drained weight.

(vi) The combined number of leaves, detached stems, and other extraneous vegetable matter shall not average more than 3 pieces per 340 g (12 oz) drained beans.

(2) Canned beans shall be tested by the following method to determine whether they meet the requirements of paragraph (b)(1) of this section:

(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 with openings of 2.36 mm (0.0937 in), which has been previously weighed. The diameter of the sieve is 20.3 cm (8 in) if the quantity of contents of the container is less than 1.36 kg (3 lb) and 30.5 cm (12 in) if such quantity is 1.36 kg (3 lb) or more. The bottom of the sieve is woven-wire cloth that complies with the specifications of such cloth set forth in "Official Methods of Analysis of the Association of Official Analytical Chemists," 15th ed. (1990), vol. 2, p. xii, Table 1, "Nominal Dimensions of Standard Test Sieves (USA Standard Series)," under the heading "Definitions of Terms and Explanatory Notes," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Without shifting the material on the sieve, incline the sieve 17 to 20° to facilitate drainage. Two minutes after drainage begins, weigh the sieve and the drained material. Record in grams (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 the total number of units. For the purpose of this count, loose seeds,

pieces of seed, loose stems, and extraneous material are not to be included. Divide the number of units by the drained weight recorded in paragraph (b)(2)(i) of this section and multiply by 340 to obtain the number of units per 340 g (12 oz) drained weight.

(iii) Examine the drained material in the tray, weigh and record weight of blemished units, count and record the number of unstemmed units; and, in case the material consists of the optional ingredient specified in paragraph (a)(2)(iii) (c), (d) or (f) of this section, count and record the number of units which are less than 13 mm (0.50 in.) long. If the number of units per 340 g (12 oz.) is 240 or less, divide the number of units which are less than 13 mm (0.50 in.) by the drained weight recorded in paragraph (b)(2)(i) of this section and multiply by 340 to obtain the number of such units per 340 g (12 oz.) drained weight. If the number of units per 340 g (12 oz.) exceeds 240, divide the number of units less than 13 mm (0.50 in.) long by the total number of units and multiply by 100 to determine the percentage by count of the total units which are less than 13 mm (0.50 in.) long.

(a) Divide the weight of blemished units by the drained weight recorded in paragraph (b)(2)(i) of this section and multiply by 100 to obtain the percentage by weight of blemished units in the container.

(b) Divide the number of unstemmed units by the drained weight recorded in paragraph (b)(2)(i) of this section and multiply by 340 to obtain the number of unstemmed units per 340 g (12 oz.) of drained weight.

(iv) Remove from the tray the extraneous vegetable material, count, record count, and return to tray.

(v) Remove from the tray one or more representative samples of 99 to 113 g (3½ to 4 ounces) covering each sample as taken to prevent evaporation.

(vi) From each representative sample selected in paragraph (b)(2)(v) of this section, discard any loose seed and extraneous vegetable material and detach and discard any attached stems. Except with optional style of ingredient specified in paragraph (a)(2)(iii)(b) of this section (pods sliced

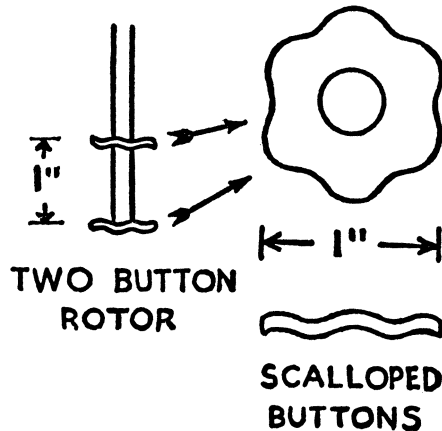
lengthwise), trim off, as far as the end of the space formerly occupied by the seed, any portion of pods from which the seed has become separated. Remove and discard any portions of seed from the trimmings and reserve the trimmings for paragraph (b)(2)(viii) of this section. Weigh and record the weight of the trimmed pods. Deseed the trimmed pods and reserve the deseeded pods for paragraph (b)(2)(viii) of this section. Remove strings from the pods during the deseeding operation. Reserve these strings for testing as prescribed in paragraph (b)(2)(vii) of this section. In the case of pods sliced lengthwise, remove seed and pieces of seed and reserve the deseeded pods for use as prescribed in paragraph (b)(2)(viii) of this section.

(vii) If strings have been removed for testing, as prescribed in paragraph (b)(2)(vi) of this section, test them as follows:

Fasten clamp, weighted to 250 g (8.8 oz.), to one end of the string, grasp the other end with the fingers (a cloth may be used to aid in holding the string), and lift gently. Count the string as tough if it supports the 250 g (8.8 oz.) weight for at least 5 seconds. If the string breaks before 5 seconds, test such parts into which it breaks as are 13 mm (½ in.) or more in length; and if any such part of the string supports the 250 g (8.8 oz.) weight for at least 5 seconds, count the string as tough. Divide the number of tough strings by the weight of the sample recorded in paragraph (b)(2)(v) of this section and multiply by 340 to obtain the number of tough strings per 340 g (12 oz.) drained weight.

(viii) Combine the deseeded pods with the trimmings reserved in paragraph (b)(2)(vi) of this section, and, if strings were tested as prescribed in paragraph (b)(2)(vii) of this section, add such strings broken or unbroken. Weigh and record weight of combined material. Transfer to the metal cup of a malted-milk stirrer and mash with a pestle. Wash material adhering to the pestle back into cup with 200 cc of boiling water. Bring mixture nearly to a boil, add 25 cc of 50 percent (by weight) sodium hydroxide solution and bring to a boil. (If foaming is excessive, 1 cc of capryl alcohol may be added.) Boil for 5 minutes, then stir for 5 minutes with a malted-milk stirrer capable of a no-load speed of at least 7,200 rpm. Use a

rotor with two scalloped buttons shaped as shown in exhibit 1 as follows:



Transfer the material from the cup to a previously weighed 30-mesh monel metal screen having a diameter of about 9–10 cm (3½ to 4 in.) and side walls about 2.5 cm (1 in.) high, and wash fiber on the screen with a stream of water using a pressure not exceeding 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 (¼ in.) inside diameter inserted into a rubber tube of 6 mm (¼ 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 AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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) Commminute 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 flavor imparted by butter or margarine may be used.

(3) *Labeling.* (i) The name of the food is “peas” and may include the designation “green.” The term “early,” “June,” or “early June” shall precede or follow the name in the case of smooth-skin peas or substantially smooth-skin peas, such as Alaska-type peas or hybrids having similar characteristics. Where the peas are of sweet green wrinkled varieties or hybrids having similar characteristics, the name may include the designation “sweet,” “wrinkled,” or any combination thereof. The term “petit pois” may be used in conjunction with the name of the food when an average of 80 percent or more of the peas will pass through a circular opening of a diameter of 7.1 millimeters (0.28 inch). If any color additive has been added, the name of the food shall include the term “artificially colored.”

(ii) The following shall be included as part of the name or in close proximity to the name of the food:

(a) A declaration of any flavoring that characterizes the food, as specified in § 101.22 of this chapter.

(b) A declaration of any spice, seasoning, or garnishing that characterizes the product, e.g., “seasoned with green peppers”, “seasoned with butter”, “seasoned with _____ oil”, the blank to be filled in with the common or usual name of the oil, “with added spice”, or, in lieu of the word spice, the common or usual name of the spice.

(c) The words “vacuum pack” or “vacuum packed” when the weight of the liquid in the container, as determined by the method prescribed in § 155.3(a) is not more than 20 percent of the net weight, and the container is closed under conditions creating a high vacuum in the container.

(4) *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 peas is as follows:

(i) *Blond and yellow peas.* Not more than 2 percent of the drained weight is blond and/or yellow peas, i.e., white or yellow but edible peas.

(ii) *Blemished peas.* Not more than 5 percent of the drained weight is blemished peas, i.e., slightly stained or spotted peas.

(iii) *Seriously blemished peas.* Not more than 1 percent of the drained weight is seriously blemished peas, i.e., peas that are hard, shrivelled, spotted, discolored, or otherwise blemished to an extent that the appearance or eating quality is seriously affected.

(iv) *Pea fragments.* Not more than 10 percent of the drained weight is pea fragments, i.e., portions of peas, separated or individual cotyledons, crushed, partial or broken cotyledons, and loose skins, but excluding entire intact peas with skins detached.

(v) *Extraneous vegetable material.* Not more than 0.5 percent of the drained weight is extraneous vegetable material, i.e., vine or leaf or pod material from the pea plant or other such material.

(vi) *Alcohol-insoluble solids*. The alcohol-insoluble solids of smooth-skin or substantially smooth-skin peas, such as Alaska-type peas or hybrids having similar characteristics, may not be more than 23.5 percent and, of sweet green wrinkled varieties or hybrids having similar characteristics, not more than 21 percent based on the procedure set forth in the "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed. (1980), section 30.012, which is incorporated by reference. Copies are available from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(vii) *Limitation*. The sum of the pea material described in paragraphs (b)(1) (i), (ii), (iii), (iv), and (v) of this section shall not exceed 12 percent.

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

(3) If the quality of canned peas 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; but in lieu of such general statement of substandard quality when the quality of canned peas falls below the standard in only one respect, the label may bear the alternative statement, "Below standard in quality _____", the blank to be filled in with the words specified after the corresponding paragraph under paragraph (b)(1) of this section which such canned peas fail to meet, as follows: (i) "Excessive blond and/or yellow peas"; (ii) "Excessive blemished peas"; (iii) "Excessive seriously blemished peas"; (iv) "Excessive pea fragments"; (v) "Excessive vegetable material"; (vi) "Excessive mealy". Such alternative statement shall immediately and conspicuously precede or follow without intervening written, printed, or graphic matter, the name "peas" and any words and statements required

or authorized to appear with such name by paragraph (a)(3) of this section.

(c) *Fill of container*. (1) Except in the case of vacuum pack peas, the fill of pea 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.

(2) When the peas and liquid are removed from the container and returned thereto, the leveled peas (irrespective of the quantity of the liquid), 15 seconds after they are so returned, completely fill the container. A container with lid attached by double seam shall be considered to be completely filled when it is filled to 5 millimeters (0.2 inch) vertical distance below the top of the double seam; and a glass container shall be considered to be completely filled when it is filled to 13 millimeters (0.5 inch) vertical distance below the top of the container.

(3) Determine compliance for fill of container as specified in § 155.3(b).

(4) If canned peas fall below the standard of fill of container prescribed in paragraph (c)(1) and/or (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.

[45 FR 43398, June 27, 1980, as amended at 47 FR 11832, Mar. 19, 1982; 48 FR 15241, Apr. 8, 1983; 54 FR 24895, June 12, 1989; 58 FR 2882, Jan. 6, 1993; 63 FR 14035, Mar. 24, 1998]

EFFECTIVE DATE NOTE: In § 155.170, those portions of paragraph (a)(2) pertaining to the deletion of magnesium, hydroxide, magnesium oxide, and magnesium carbonate were stayed until further notice at 46 FR 35086, July 1, 1981, effective June 30, 1981.

§ 155.172 Canned dry peas.

(a) *Identity*. Canned dry peas conforms to the definition and standard of identity, and is subject to the requirements for label declaration of ingredients, prescribed for canned peas by § 155.170(a), except that:

(1) The optional pea ingredient is the dry seeds of the pea plant of the species *Pisum sativum* L. but excluding the subspecies *macrocarpum*.

(2) The optional ingredients specified in § 155.170(a)(2)(xii) shall not be used.

(3) The name of the food is “cooked dry peas” or “soaked dry peas”. The optional terms specified by § 155.170(a)(3), “early”, “June”, “sweet”, “green”, “wrinkled”, or any combination thereof, shall not be used on the labels.

(b) *Quality*. (1) The standard of quality for canned dry peas is that specified for canned peas by § 155.170(b) except that:

(i) The alcohol-insoluble solids maximums specified in § 155.170(b)(1)(vi) do not apply.

(ii) The skins of not more than 25 percent by count of the peas in the container are ruptured to a width of 1.6 millimeters (0.06 inch) or more.

(2) If the quality of canned dry peas falls below the standard of quality prescribed by paragraph (b)(1) of this section, the label shall bear the statement of substandard quality in the manner and form specified in § 155.170(b)(3) for canned peas, except that the words “Excessively mealy” shall not be used.

(c) *Fill of container*. (1) The standard of fill of container for canned dry peas is that prescribed for canned peas by § 155.170(c).

(2) If canned dry peas fall below the standard of fill of container prescribed by paragraph (c)(1) 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.

[45 FR 43399, June 27, 1980, as amended at 48 FR 15241, Apr. 8, 1983; 58 FR 2883, Jan. 6, 1993]

§ 155.190 Canned tomatoes.

(a) *Identity*—(1) *Description*. (i) Canned tomatoes is the food prepared from mature tomatoes conforming to the characteristics of the fruit *Lycopersicon esculentum* P. Mill, of red or reddish varieties. The tomatoes may or may not be peeled, but shall have had the stems and calices removed and shall have been cored, except where the internal core is insignificant to texture and appearance.

(ii) Canned tomatoes may contain one or more of the safe and suitable optional ingredients specified in paragraph (a)(2) of this section, be packed without any added liquid or in one of the optional packing media specified in paragraph (a)(3) of this section and be

prepared in one of the styles specified in paragraph (a)(4) 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*. One or more of the following safe and suitable ingredients may be used:

(i) Calcium salts in a quantity reasonably necessary to firm the tomatoes, but the amount of calcium in the finished canned tomatoes is not more than 0.045 percent of the weight, except that when the tomatoes are prepared in one of the styles specified in paragraphs (a)(4) (ii) to (iv) of this section the amount of calcium is not more than 0.08 percent of the weight of the food.

(ii) Organic acids for the purpose of acidification.

(iii) Dry nutritive carbohydrate sweeteners whenever any organic acid provided for in paragraph (a)(2)(ii) of this section is used, in a quantity reasonably necessary to compensate for the tartness resulting from such added acid.

(iv) Salt.

(v) Spices, spice oils.

(vi) Flavoring and seasoning.

(vii) Vegetable ingredients such as onion, peppers, and celery, that may be fresh or preserved by physical means, in a quantity not more than 10 percent by weight of the finished food.

(3) *Packing media*. (i) The liquid draining from the tomatoes during or after peeling or coring.

(ii) The liquid strained from the residue from preparing tomatoes for canning consisting of peels and cores with or without tomatoes or pieces thereof.

(iii) The liquid strained from mature tomatoes (tomato juice).

(iv) Tomato paste, or tomato puree, or tomato pulp complying with the compositional requirements of § 155.191.

(4) *Styles*. (i) Whole.

(ii) Diced.

(iii) Sliced.

(iv) Wedges.

(5) *Name of the food*. (i) The name of the food is “tomatoes”, except that when the tomatoes are not peeled the name is “unpeeled tomatoes”.

(ii) The following shall be included as part of the name or in close proximity to the name of the food:

(a) A declaration of any flavoring that characterizes the product as specified in §101.22 of this chapter.

(b) A declaration of any added spice, seasoning, or vegetable ingredient that characterizes the product, (e.g., “with added _____” or, “with _____” the blank to be filled in with the word(s) “spice(s)”, “seasoning(s)”, or the name(s) of the vegetable(s) used or in lieu of the word(s) “spice(s)” or “seasoning (s)” the common or usual name(s) of the spice(s) or seasoning(s) used) except that no declaration of the presence of onion, peppers, and celery is required for stewed tomatoes.

(c) The word “stewed” if the tomatoes contain characterizing amounts of at least the three optional vegetables listed in paragraph (a)(2)(vii) of this section.

(d) The styles: “Diced”, “sliced”, or “wedges” as appropriate.

(e) The name of the packing medium: “tomato paste”, “tomato puree”, or “tomato pulp” as provided in paragraph (a)(3)(iv) of this section, or “strained residual tomato material from preparation for canning” as provided for in paragraph (a)(3)(ii) of this section, as appropriate. The name of the packing medium shall be preceded by the word “with”.

(iii) The following may be included as part of the name or in close proximity to the name:

(a) The word “whole” if the tomato ingredient is whole or almost whole, and the weight of such ingredient is not less than 80 percent of the drained weight of the finished food as determined in accordance with the method prescribed in paragraph (b)(2) of this section.

(b) The words “solid pack” when none of the optional packing media specified in paragraph (a)(3) of this section are used.

(c) The words “in tomato juice” if the packing medium specified in paragraph (a)(3)(iii) of this section is used.

(6) *Label declaration.* The name of each ingredient used 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 tomatoes is as follows:

(i) The drained weight, as determined by the method prescribed in paragraph (b)(2)(i) of this section, is not less than 50 percent of the weight of water required to fill the container, as determined by the general method for water capacity of containers prescribed in §130.12(a) of this chapter;

(ii) The strength and redness of color as determined by the method prescribed in paragraph (b)(2) of this section, are not less than that of the blended color of any combination of the color discs described in such method in which one-third the area of disc 1, and not more than one-third the area of disc 2, is exposed;

(iii) Peel per kilogram (2.2 pounds) of the finished food covers an area of not more than 15 cm² (2.3 square inches) which is equivalent to 6.8 cm² (1.06 square inches) per pound based on an average of all containers examined provided, however, that the area of peel is not a factor of quality for canned unpeeled tomatoes labeled in accordance with paragraph (a)(5)(i) of this section; and

(iv) Blemishes per kilogram (2.2 pounds) of the finished food cover an area of not more than 3.5 cm² (0.54 square inch) which is equivalent to 1.6 cm² (0.25 square inch) per pound based on an average of all containers examined.

(2) Canned tomatoes shall be tested by the following method to determine whether or not they meet the requirements of paragraphs (b)(1) (i) and (ii) of this section:

(i) Remove lid from container, but in the case of a container with lid attached by double seam, do not remove or alter the height of the double seam. Tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed. The diameter of the sieve used is 20.3 centimeters (8 inches) if the quantity of the contents of the container is less than 1.4 kilograms (3 pounds) or 30.5 centimeters (12 inches) if such quantity is 1.4 kilograms (3 pounds) or more. The meshes of such sieve are made by so weaving wire of 1.4 mm (0.054 inch) diameter as to form square openings 11.3 mm by 11.3 mm (0.446 inch by 0.446 inch). Without shifting the tomatoes, so incline the sieve

as to facilitate drainage of the liquid. Two minutes from the time drainage begins, weigh the sieve and drained tomatoes. The weight so found, less the weight of the sieve, shall be considered to be the drained weight.

(ii) Remove from the sieve the drained tomatoes, cut out and segregate successively those portions of least redness until 50 percent of the drained weight has been so segregated. Comminute the segregated portions to a uniform mixture without removing or breaking the seeds. Fill the mixture into a black container to a depth of at least 25.4 mm (1 inch). Free the mixture from air bubbles, and skim off or press below the surface all visible seeds. Compare the color of the mixture, in full diffused daylight or its equivalent, with the blended color of combinations of the following concentric Munsell color discs of equal diameter, or the color equivalent of such discs:

- (a) Red—Munsell 5 R 2.6/13 (glossy finish).
- (b) Yellow—Munsell 2.5 YR 5/12 (glossy finish).
- (c) Black—Munsell N 1/ (glossy finish).
- (d) Grey—Munsell N 4 (mat finish).

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

(4) If the quality of canned tomatoes 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; if, however, the quality of canned tomatoes falls below standard with respect to only one of the factors of quality specified by paragraphs (b)(1) (i) to (iii) 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, appropriate for the corresponding subparagraph designation of paragraph (b)(1) of this section which the canned tomatoes fail to meet, to read as follows:

- (i) "Poor color" or
 - (ii) "Excessive peel" or
 - (iii) "Excessive blemishes".
- (c) *Fill of container.* (1) The standard of fill of container for canned tomatoes

is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of containers prescribed in § 130.12(b) of this chapter.

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

(3) If canned tomatoes fall below the standard of fill of container prescribed in paragraph (c)(1) 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 43 FR 12858, Mar. 28, 1978; 43 FR 30274, July 14, 1978; 45 FR 43400, June 27, 1980; 58 FR 17103, Apr. 1, 1993; 59 FR 15051, Mar. 31, 1994]

§ 155.191 Tomato concentrates.

(a) *Identity*—(1) *Definition.* Tomato concentrates are the class of foods each of which is prepared by concentrating one or any combination of two or more of the following optional tomato ingredients:

(i) The liquid obtained from mature tomatoes of the red or reddish varieties (*Lycopersicon esculentum* P. Mill).

(ii) The liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(iii) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining the tomatoes, with or without heating, as to exclude skins (peel), seeds, and other coarse or hard substances in accordance with good manufacturing practice. Prior to straining, food-grade hydrochloric acid may be added to the tomato material in an amount to obtain a pH no lower than 2.0. Such acid is then neutralized with food-grade sodium hydroxide so that the treated tomato material is restored to a pH of 4.2±0.2. Water may be added to adjust the final composition. The food contains not less than 8.0 percent tomato soluble solids as defined in § 155.3(e). The food is preserved by heat sterilization (canning), refrigeration, or freezing. When sealed in a container to be held at ambient temperatures, it is so processed by heat, before or after sealing, as to prevent spoilage.

(2) *Optional ingredients.* One or any combination of two or more of the following safe and suitable ingredients may be used in the foods:

(i) Salt (sodium chloride formed during acid neutralization shall be considered added salt).

(ii) Lemon juice, concentrated lemon juice, or organic acids.

(iii) Sodium bicarbonate.

(iv) Water, as provided for in paragraph (a)(1) of this section.

(v) Spices.

(vi) Flavoring.

(3) *Labeling.* (i) The name of the food is:

(a) "Tomato puree" or "tomato pulp" if the food contains not less than 8.0 percent but less than 24.0 percent tomato soluble solids.

(b) "Tomato paste" if the food contains not less than 24.0 percent tomato soluble solids.

(c) The name "tomato concentrate" may be used in lieu of the name "tomato puree," "tomato pulp," or "tomato paste" whenever the concentrate complies with the requirements of such foods; except that the label shall bear the statement "for remanufacturing purposes only" when the concentrate is packaged in No. 10 containers (3.1 kilograms or 109 avoirdupois ounces total water capacity) or containers that are smaller in size.

(d) "Concentrated tomato juice" if the food is prepared from the optional tomato ingredient described in paragraph (a)(1)(i) of this section and is of such concentration that upon diluting the food according to label directions as set forth in paragraph (a)(3)(iii) of this section, the diluted article will contain not less than 5.0 percent by weight tomato soluble solids.

(ii) The following shall be included as part of the name or in close proximity to the name of the food:

(a) The statement "Made from" or "Made in part from," as the case may be, "residual tomato material from canning" if the optional tomato ingredient specified in paragraph (a)(1)(ii) of this section is present.

(b) The statement "Made from" or "Made in part from," as the case may be, "residual tomato material from partial extraction of juice" if the optional tomato ingredient specified in

paragraph (a)(1)(iii) of this section is present.

(c) A declaration of any flavoring that characterizes the product as specified in § 101.22 of this chapter and a declaration of any spice that characterizes the product, e.g., "Seasoned with _____," the blank to be filled in with the words "added spice" or, in lieu of the word "spice," the common name of the spice.

(iii) The label of concentrated tomato juice shall bear adequate directions for dilution to result in a diluted article containing not less than 5.0 percent by weight tomato soluble solids; except that alternative methods may be used to convey adequate dilution directions for containers that are larger than No. 10 containers (3.1 kilograms or 109 avoirdupois ounces total water capacity).

(iv) *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; except that water need not be declared in the ingredient statement when added to adjust the tomato soluble solids content of tomato concentrates within the range of soluble solids levels permitted for these foods.

(v) Determine percent tomato soluble solids as specified in § 155.3(e). Determine compliance as specified in § 155.3(b). A lot shall be deemed to be in compliance for tomato soluble solids as follows:

(a) The sample average meets or exceeds the required minimum.

(b) The number of sample units that are more than 1 percent tomato soluble solids below the minimum required does not exceed the acceptance number in the sampling plans set forth in § 155.3(c)(2).

(b) *Quality.* (1) The standard of quality for tomato concentrate (except for concentrated tomato juice, which when diluted to 5.0 percent tomato soluble solids shall conform to the standard of quality for tomato juice set forth in § 156.145 of this chapter) is as follows:

(i) The strength and redness of color of the food, when diluted with water (if necessary) to 8.1 ± 0.1 percent tomato soluble solids is not less than the composite color produced by spinning the

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Munsell color discs in the following combination:

53 percent of the area of Disc 1;
28 percent of the area of Disc 2; and
19 percent of the area of either Disc 3 or Disc 4; or
9½ percent of the area of Disc 3 and 9½ percent of the area of Disc 4, whichever most nearly matches the appearance of the sample.

(ii) Not more than one whole seed per 600 grams (21 ounces).

(iii) Not more than 36 of the following defects, either singly or in combination, per 100 grams (3.5 ounces) of the product when diluted with water to 8.1±0.1 percent tomato soluble solids:

(a) Pieces of peel 5 millimeters (0.20 inch) or greater in length (without unrolling).

(b) Pieces of seed (seed particles) 1 millimeter (0.039 inch) or greater in length.

(c) Blemishes, such as dark brown or black particles (specks)—not more than four exceed 1.6 millimeters (0.0625 inch) in length of which not more than one exceeds 3.2 millimeters (0.125 inch) and none exceed 6.4 millimeters (0.25 inch).

(2) *Methodology*. Dilute with water, if necessary, to 8.1±0.1 percent tomato soluble solids. (i) Determine strength and redness of color as prescribed in § 155.3(d).

(ii) Whole seeds—Weigh out 600 grams (21 ounces) of the well-mixed, diluted concentrate; place a U.S. No. 12 screen (1.68 millimeters (0.066 inch) openings) over the sink drain; transfer the product sample onto the screen; rinse container thoroughly with water and pour through screen; flush sample through screen by using an adequate spray of water; check screen for whole seeds; apply the appropriate allowance.

(iii) Peel, pieces of seed, and blemishes—Spread the prepared concentrate evenly on a large white tray and remove the individual defects, identify, classify, and measure.

(3) *Sampling and acceptance*. Determine compliance as specified in § 155.3(b).

(4) If the quality of the tomato concentrate falls below the standard prescribed in paragraph (b) (1) and (3) of this section, the label shall bear the general statement of substandard qual-

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ity specified in § 130.14(a) of this chapter, in the manner and form therein specified, but in lieu of such general statement of substandard quality when the quality of the tomato concentrate falls below the standard in one or more respects, the label may bear the alternative statement, “Below Standard in Quality _____,” the blank to be filled in with the words specified after the corresponding paragraph(s) under paragraph (b)(1) of this section which such tomato concentrate fails to meet, as follows:

(i) “Poor color.”

(ii) “Excessive seeds.”

(iii)(a) “Excessive pieces of peel.”

(b) “Excessive pieces of seed.”

(c) “Excessive blemishes.”

(c) *Fill of container*. (1) The standard of fill of container for tomato concentrate, 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, except when the food is frozen.

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

(3) If the tomato concentrate falls below the standard of fill prescribed in paragraph (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 prescribed.

[48 FR 3954, Jan. 28, 1983, as amended at 49 FR 15073, Apr. 17, 1984; 58 FR 2883, Jan. 6, 1993; 58 FR 17104, Apr. 1, 1993]

§ 155.194 Catsup.

(a) *Identity*—(1) *Definition*. Catsup, ketchup, or catchup is the food prepared from one or any combination of two or more of the following optional tomato ingredients:

(i) Tomato concentrate as defined in § 155.191(a)(1), except that lemon juice, concentrated lemon juice, or safe and suitable organic acids may be used in quantities no greater than necessary to adjust the pH, and in compliance with § 155.191(b).

(ii) The liquid derived from mature tomatoes of the red or reddish varieties *Lycopersicum esculentum* P. Mill.

(iii) The liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and

cores with or without such tomatoes or pieces thereof.

(iv) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is strained so as to exclude skins, seeds, and other coarse or hard substances in accordance with current good manufacturing practice. Prior to straining, food-grade hydrochloric acid may be added to the tomato material in an amount to obtain a pH no lower than 2.0. Such acid is then neutralized with food-grade sodium hydroxide so that the treated tomato material is restored to a pH of 4.2 ± 0.2 . The final composition of the food may be adjusted by concentration and/or by the addition of water. The food may contain salt (sodium chloride formed during acid neutralization shall be considered added salt) and is seasoned with ingredients as specified in paragraph (a)(2) of this section. The food is preserved by heat sterilization (canning), refrigeration, or freezing. When sealed in a container to be held at ambient temperatures, it is so processed by heat, before or after sealing, as to prevent spoilage.

(2) *Ingredients.* One or any combination of two or more of the following safe and suitable ingredients in each of the following categories is added to the tomato ingredients specified in paragraph (a)(1) of this section:

(i) Vinegars.

(ii) Nutritive carbohydrate sweeteners. Such sweeteners if defined in part 168 of this chapter shall be as defined therein.

(iii) Spices, flavoring, onions, or garlic.

(3) *Labeling.* (i) The name of the food is "Catsup," "Ketchup," or "Catchup."

(ii) The following shall be included as part of the name or in close proximity to the name of the food:

(a) The statement "Made from" or "Made in part from," as the case may be, "residual tomato material from canning" if the optional tomato ingredient specified in paragraph (a)(1)(iii) of this section or tomato concentrate containing the ingredient specified in § 155.191(a)(1)(ii) is present.

(b) The statement "Made from" or "Made in part from," as the case may be, "residual tomato material from partial extraction of juice" if the op-

tional tomato ingredient specified in paragraph (a)(1)(iv) of this section or tomato concentrate containing the ingredient specified in § 155.191(a)(1)(iii) is present.

(iii) *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; except that the name "tomato concentrate" may be used in lieu of the names "tomato puree," "tomato pulp," or "tomato paste" and when tomato concentrates are used, the labeling requirements of § 155.191(a)(3)(ii)(a) and (a)(3)(ii)(b) do not apply.

(b) *Quality.* (1) The standard of quality for catsup is as follows: The consistency of the finished food is such that its flow is not more than 14 centimeters in 30 seconds at 20 °C when tested in a Bostwick Consistometer in the following manner: Check temperature of mixture and adjust to 20 ± 1 °C. The trough must also be at a temperature close to 20 °C. Adjust end-to-end level of Bostwick Consistometer by means of the spirit level placed in trough of instrument. Side-to-side level may be adjusted by means of the built-in spirit level. Transfer sample to the dry sample chamber of the Bostwick Consistometer. Fill the chamber slightly more than level full, avoiding air bubbles as far as possible. Pass a straight edge across top of chamber starting from the gate end to remove excess product. Release gate of instrument by gradual pressure on lever, holding the instrument down at the same time to prevent its movement as the gate is released. Immediately start the stop watch or interval timer, and after 30 seconds read the maximum distance of flow to the nearest 0.1 centimeter. Clean and dry the instrument and repeat the reading on another portion of sample. Do not wash instrument with hot water if it is to be used immediately for the next determination, as this may result in an increase in temperature of the sample. For highest accuracy, the instrument should be maintained at a temperature of 20 ± 1 °C. If readings vary more than 0.2 centimeter, repeat a third time or until satisfactory agreement is obtained. Report the average of two or

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more readings, excluding any that appear to be abnormal.

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

(3) If the quality of catsup falls below the standard prescribed in paragraphs (b) (1) and (2) 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 such general statement of substandard quality when the quality of the catsup falls below the standard, the label may bear the alternative statement, “Below Standard in Quality—Low Consistency.”

(c) *Fill of container.* (1) The standard of fill of container for catsup, 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 except:

(i) When the food is frozen, or

(ii) When the food is packaged in individual serving-size packages containing 56.7 grams (2 ounces) or less.

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

(3) If the catsup falls below the standard of fill prescribed in paragraphs (c) (1) and (2) of this section, the label

shall bear the general statement of substandard fill as specified in § 130.14(b) of this chapter, in the manner and form therein specified.

[48 FR 3956, Jan. 28, 1983, as amended at 49 FR 15073, Apr. 17, 1984; 58 FR 2883, Jan. 6, 1993]

§ 155.200 Certain other canned vegetables.

(a) The canned vegetables for which definitions and standards of identity are prescribed by this section are those named in column I of the table set forth in paragraph (b) of this section. The vegetable ingredient in each such canned vegetable is obtained by proper preparation from the succulent vegetable prescribed in column II of such table. If two or more forms of such ingredient are designated in column III of such table, the vegetable in each such form is an optional ingredient. To the vegetable ingredient additional ingredients as required or permitted by paragraph (c) of this section are added, and the food is sealed in a container and so processed by heat as to prevent spoilage.

(b) The table referred to in paragraph (a) of this section is as follows:

I—Name or synonym of canned vegetable	II—Source	III—Optional forms of vegetable ingredient
Artichokes	Flower buds of the artichoke plant	Whole; half or halves or halved; whole hearts; halved hearts; quartered hearts.
Asparagus	Edible portions of sprouts of the asparagus plant, as follows: 3 and $\frac{3}{4}$ in or more of upper end 3 and $\frac{3}{4}$ in or more of peeled upper end Not less than 2 and $\frac{3}{4}$ in but less than 3 and $\frac{3}{4}$ in of upper end Less than 2 and $\frac{3}{4}$ in of upper end Sprouts cut in pieces Sprouts from which the tip has been removed, cut in pieces.	Stalks or spears. Peeled stalks or peeled spears. Tips. Points. Cut stalks or cut spears. Bottom cuts or cuts—tips removed.
Bean sprouts	Sprouts of the Mung bean.	
Shelled beans	Seed shelled from green or wax bean pods, with or without snaps (pieces of immature unshelled pods).	
Lima beans or butter beans	Seed shelled from the pods of the lima bean plant.	
Beets	Root of the beet plant	Whole; slices or sliced; quarters or quartered; dice or diced; cut; shoestring or French style or julienne.
Beet greens	Leaves, or leaves and immature root, of the beet plant.	
Broccoli	Heads of the broccoli plant.	
Brussels sprouts	Sprouts of the brussels sprouts plant.	
Cabbage	Cut pieces of the heads of the cabbage plant.	
Carrots	Root of the carrot plant	Do.
Cauliflower	Cut pieces of the head of the cauliflower plant.	
Celery	Stalks of the celery plant	Cut; hearts.
Collards	Leaves of the collard plant.	
Dandelion greens	Leaves of the dandelion plant.	

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I—Name or synonym of canned vegetable	II—Source	III—Optional forms of vegetable ingredient
Kale	Leaves of the kale plant.	Whole; cut. Do. Whole; quarters or quartered; slices or sliced; cut; shoestring or French style or julienne.
Mustard greens	Leaves of the mustard plant.	
Okra	Pods of the okra plant	
Onions	Bulb of the onion plant	
Parsnips	Root of the parsnip plant	
Black-eye peas or black-eyed peas.	Seed shelled from pods of the black-eye pea plant, with or without snaps (pieces of immature unshelled pods).	Whole; halves or halved; pieces; dice or diced; strips; chopped. Do. Whole; halves or halved; pieces; dice or diced; slices or sliced; chopped. Whole; slices or sliced; dice or diced; pieces; shoestring or French style or julienne; French fry cut. Whole; quarters or quartered; slices or sliced; dice or diced; cut.
Field peas	Seed shelled from pods of the field pea plant (other than the black-eye pea plant), with or without snaps (pieces of immature unshelled pods).	
Green sweet peppers	Green pods of the sweet pepper plant	
Red sweet peppers	Red-ripe pods of the sweet pepper plant	
Pimientos or pimentos	Red-ripe pods of the pimiento, pimento, pepper plant.	
Potatoes	Tuber of the potato plant	Whole; quarters or quartered; slices or sliced; dice or diced; cut. Whole leaf; cut leaf or sliced; chopped. Whole; mashed; pieces or cuts or cut (longitudinally cut halves may be named on labels as halves or halved in lieu of pieces or cuts or cut).
Rutabagas	Root of the rutabaga plant	
Salsify	Root of the salsify plant.	
Spinach	Leaves of the spinach plant	
Sweet potatoes	Tuber of the sweet potato plant	
Swiss chard	Leaves of the Swiss chard plant.	Whole; quarters or quartered; slices or sliced; dice or diced; cut.
Truffles	Fruit of the truffle.	
Turnip greens	Leaves of the turnip plant.	
Turnips	Root of the turnip plant	

(c) Water is added to the vegetable ingredient, except that pimientos may be canned with or without added water, and sweet potatoes in mashed form are canned without added water. Asparagus may be canned with added water, asparagus juice, or a mixture of both. For the purposes of this section, asparagus juice is the clear, unfermented liquid expressed from the washed and heated sprouts or parts of sprouts of the asparagus plant, and mixtures of asparagus juice and water are considered to be water when such mixtures are used as a packing medium for canned asparagus. In the case of artichokes, a vinegar or any safe and suitable organic acid, which either is not a food additive as defined in section 201(s) of the Federal Food, Drug, and Cosmetic Act, or if it is a food additive as so defined, is used in conformity with regulations established pursuant to section 409 of the act, is added in such quantity as to reduce the pH of the finished canned vegetable to 4.5 or below. The following optional ingredi-

ents, in the case of the vegetables specified, may be added:

- (1) An edible vegetable oil, in the cases of artichokes and pimientos.
- (2) Snaps, in the cases of shelled beans, black-eyed peas, and field peas.
- (3) In the case of all vegetables (except canned mashed sweet potatoes as regards the seasonings listed in paragraph (c)(3)(iii) of this section) one or more of the following optional seasoning ingredients may be added in a quantity sufficient to season the food.
 - (i) Refined sugar (sucrose).
 - (ii) Refined corn sugar (dextrose).
 - (iii) Corn sirup, glucose sirup.
 - (iv) Dried corn sirup, dried glucose sirup.
 - (v) Spice.
 - (vi) A vinegar.
 - (vii) Green peppers or red peppers which may be dried.
 - (viii) Mint leaves.
 - (ix) Onions, which may be dried.
 - (x) Garlic, which may be dried.
 - (xi) Horseradish.
 - (xii) Lemon juice or concentrated lemon juice.

(xiii) Butter or margarine in a quantity not less than 3 percent by weight of the finished food. When butter or margarine is added, safe and suitable 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) In the case of all vegetables, the following optional ingredients may be added:

(i) Salt.

(ii) Monosodium glutamate.

(iii) Disodium inosinate complying with the provisions of §172.535 of this chapter.

(iv) Disodium guanylate complying with the provisions of §172.530 of this chapter.

(v) Hydrolyzed vegetable protein.

(vi) Autolyzed yeast extract.

(5) In the case of all vegetables flavoring (except artificial) may be added.

(6) In the case of bean sprouts, lima beans, carrots, green sweet peppers, red sweet peppers, and potatoes, any safe and suitable calcium salts may be added as a firming agent.

(7) In the case of canned artichokes packed in glass containers, ascorbic acid may be added in a quantity not to exceed 32 milligrams per 100 grams of the finished food.

(8) In the case of canned asparagus, ascorbic acid, erythorbic acid, or the sodium salts of ascorbic acid or erythorbic acid may be added in an amount necessary to preserve color in the "white" and "green-tipped and white" color types.

(9) In the case of canned asparagus packed in glass containers, stannous chloride may be added in a quantity not to exceed 15 parts per million calculated as tin (Sn), except that in the case of asparagus packed in glass containers with lids lined with an inert material the quantity of stannous chloride added may exceed 15 parts per million but not 20 parts per million calculated as tin (Sn).

(10) In the case of canned black-eyed peas, disodium EDTA may be added in a quantity not to exceed 145 parts per million.

(11) In the case of potatoes, calcium disodium EDTA may be added in a

quantity not to exceed 110 parts per million.

(12) A vinegar or any safe and suitable organic acid for all vegetables (except artichokes, in which the quantity of such optional ingredient is prescribed by the introductory text of paragraph (c) of this section) in a quantity which, together with the amount of any lemon juice or concentrated lemon juice that may be added, is not more than sufficient to permit effective processing by heat without discoloration or other impairment of the article.

(d) The name of each canned vegetable for which a definition and standard of identity is prescribed by this section is the name or any synonym thereof whereby such vegetable is designated in column I of the table in paragraph (b) of this section.

(e) When two or more forms of the vegetable are specified in column III of the table in paragraph (b) of this section, the label shall bear the specified word or words, or in case synonyms are so specified, one of such synonyms, showing the form of the vegetable ingredient present; except that in the case of canned spinach, if the whole leaf is the optional form used, the word "spinach" unmodified may be used in lieu of the words "whole leaf spinach".

(f)(1) If the optional ingredient specified in paragraph (c)(1) of this section is present, the label shall bear the statement "_____ oil added" or "With added _____ oil", the blank being filled in with the common or usual name of the oil.

(2) If asparagus juice is used as a packing medium in canned asparagus, the label shall bear the statement "Packed in asparagus juice".

(3) If the optional ingredient specified in paragraph (c)(2) of this section is present, the label shall bear the statement "With snaps".

(g) The name of the food 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 or seasoning that characterizes the product; for example, "with added spice", "seasoned with red peppers", "seasoned with butter". Wherever the name of the vegetable appears on the label so conspicuously as

to be easily seen under customary conditions of purchase, the words and statements specified in paragraphs (e) and (f) (1) through (3) of this section shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the vegetable may so intervene.

(h) *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.

[42 FR 14449, Mar. 15, 1977, as amended at 42 FR 30358, June 14, 1977; 46 FR 56410, Nov. 17, 1981; 48 FR 10813, Mar. 15, 1983; 49 FR 6711, Feb. 23, 1984; 58 FR 2883, Jan. 6, 1993; 59 FR 15052, Mar. 31, 1994]

§ 155.201 Canned mushrooms.

(a) *Identity*—(1) *Definition.* Canned mushrooms is the food properly prepared from the caps and stems of succulent mushrooms conforming to the characteristics of the species *Agaricus (Psalliota) bisporus* or *A. bitorquis*, in one of the optional styles specified in paragraph (a)(2) of this section, packed with a suitable liquid medium which may include water; and may contain one or more safe and suitable optional ingredients specified in paragraph (a)(3) of this section. The food is sealed in a container and, before or after sealing, is so processed by heat as to prevent spoilage.

(2) *Styles.* The optional styles of the mushroom ingredient referred to in paragraph (a)(1) of this section are:

(i) *Buttons*—consisting of whole mushrooms with attached stems not exceeding 5 millimeters (0.2 inch) in length, measured from the bottom of the veil.

(ii) *Whole*—consisting of whole mushrooms with attached stems cut to a length not exceeding the diameter of the cap, measured from the bottom of the veil.

(iii) *Quarters*—consisting of buttons or whole style cut into four approximately equal parts.

(iv) *Slices or sliced*—consisting of buttons or whole style of which not less than 50 percent are cut parallel to the longitudinal axis of the stem and 2 mil-

limeters to 8 millimeters (0.08 inch to 0.32 inch) in thickness.

(v) *Random sliced*—consisting of buttons or whole style sliced in a random manner.

(vi) *Pieces and stems*—consisting of pieces of caps and stems of irregular shapes and sizes.

(3) *Optional ingredients.* One or any combination of two or more of the following safe and suitable optional ingredients as provided for in paragraph (a)(1) of this section may be used:

(i) Salt.

(ii) Monosodium glutamate.

(iii) Disodium inosinate complying with the provisions of §172.535 of this chapter.

(iv) Disodium guanylate complying with the provisions of §172.530 of this chapter.

(v) Hydrolyzed vegetable protein.

(vi) Autolyzed yeast extract.

(vii) Ascorbic acid (vitamin C) in a quantity not to exceed 132 milligrams for each 100 grams (37.5 milligrams for each ounce) of drained weight of mushrooms.

(viii) Organic acids (except no vinegar is permitted), only where the inside metal of the container is fully enamel-lined and in glass containers with fully enamel-lined caps. Ascorbic acid as provided for in paragraph (a)(3)(vii) of this section.

(ix) Calcium disodium ethylenediaminetetraacetate (CaNa₂ EDTA) in a quantity not to exceed 200 parts per million for use to promote color retention.

(4) *Labeling requirements.* (i) The name of the food is mushrooms. The style as provided for in paragraph (a)(2) of this section shall be included as part of the name or in close proximity to the name of the food.

(ii) *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) [Reserved]

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

(i) The fill of the mushroom 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) The drained weight of the mushroom ingredient is not less than 56 percent of the water capacity of the container.

(iii) Determine drained weight as specified in §155.3(a).

(2) Determine compliance for minimum fill and drained weight as specified in §155.3(b).

(3) If the canned mushrooms fall below the standard of fill prescribed in paragraph (c)(1) (i) and/or (ii) 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 prescribed.

[48 FR 10813, Mar. 15, 1983, as amended at 58 FR 2883, Jan. 6, 1993]

PART 156—VEGETABLE JUICES

Subpart A—General Provisions

Sec.

156.3 Definitions.

Subpart B—Requirements for Specific Standardized Vegetable Juices

156.145 Tomato juice.

AUTHORITY: 21 U.S.C. 321, 341, 343, 348, 371.

Subpart A—General Provisions

§ 156.3 Definitions.

For the purpose of this part:

(a) *Strength and redness of color* means at least as much red as obtained by comparison of the prepared product, with the blended color produced by spinning a combination of the following concentric Munsell color discs of equal diameter, or the color equivalent of such discs:

Disc 1—Red (5R 2.6/13) (glossy finish)

Disc 2—Yellow (2.5 YR 5/12) (glossy finish)

Disc 3—Black (N1) (glossy finish)

Disc 4—Grey (N4) (mat finish)

Such comparison is to be made in full diffused daylight or under a diffused light source of approximately 2691 lux (250 footcandles) and having a spectral quality approximating that of daylight under a moderately overcast sky, with a correlated color temperature of 7,500 degrees Kelvin \pm 200 degrees. With the

light source directly over the disc and product, observation is made at an angle of 45 degrees from a distance of about 24 inches from the product. Electronic color meters may be used as an alternate means of determining the color of tomato juice. Such meters shall be calibrated to indicate that the color of the product is as red or more red than that produced by spinning the Munsell color discs in the combination as set out above.

(b) *Tomato soluble solids* means the sucrose value as determined by the method prescribed in “Official Methods of Analysis of the Association of Official Analytical Chemists,” 13th Ed., 1980, sections 32.014 to 32.016 and 52.012, under the headings “Soluble Solids in Tomato Products Official Final Action” and “Refractive Indices (n) of Sucrose Solutions at 20°,” which is incorporated by reference. Copies are available from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. If no salt has been

added, the sucrose value obtained from the referenced tables shall be considered the percent of tomato soluble solids. If salt has been added, either intentionally or through the application of the acidified break, determine the percent of such added sodium chloride as specified in paragraph (c) of this section. Subtract the percentage so found from the percentage of tomato soluble solids found (sucrose value from the refractive index tables) and multiply the difference by 1.016. The resultant value is considered the percent of “tomato soluble solids.”

(c) *Salt* means sodium chloride, determined as chloride and calculated as percent sodium chloride, by the method prescribed in “Official Methods of Analysis of the Association of Official Analytical Chemists,” 13th Ed., 1980, sections 32.025 to 32.030, under the heading “Method III (Potentiometric Method),” which is incorporated by reference.