



**United States  
Department of  
Agriculture**

**Agricultural  
Marketing  
Service**

**Fruit and  
Vegetable  
Division**

**Processed  
Products  
Branch**

# **United States Standards for Grades of Canned Blackberries and Other Similar Berries**

**Effective date May 12, 1976**

This is the second issue as amended, of the United States Standards for Grades of Canned Blackberries and other Similar Berries published in the **FEDERAL REGISTER** of April 9, 1976, (41 FR 15016) to become effective May 12, 1976. This issue supersedes the second issue, which has been in effect since December 1, 1956.

Voluntary U.S. grade standards are issued under the authority of the Agricultural Marketing Act of 1946, which provides for the development of official U.S. grades to designate different levels of quality. These grade standards are available for use by producers, suppliers, buyers, and consumers. As in the case of other standards for grades of processed fruits and vegetables, these standards are designed to facilitate orderly marketing by providing a convenient basis for buying and selling, for establishing quality control programs, and for determining loan values.

The standards also serve as a basis for the inspection and grading of commodities by the Federal inspection service, the only activity authorized to approve the designation of U.S. grades as referenced in the standards, as provided under the Agricultural Marketing Act of 1946. This service, available as on-line (in-plant) or lot inspection and grading of all processed fruit and vegetable products, is offered to interested parties, upon application, on a fee-for-service basis. The verification of some specific recommendations, requirements, or tolerances contained in the standards can be accomplished only by the use of on-line inspection procedures. In all instances, a grade can be assigned based on final product factors or characteristics.

In addition to the U.S. grade standards, grading manuals or instructions for inspection of several processed fruits and vegetables are available upon request for a nominal fee. These manuals or instructions contain detailed interpretations of the grade standards and provide step-by-step procedures for grading the product.

Grade standards are issued by the Department after careful consideration of all data and views submitted, and the Department welcomes suggestions which might aid in improving the standards in future revisions. Comments may be submitted to, and copies of standards and grading manuals obtained from:

Chief, Processed Products Branch  
Fruit and Vegetable Division, AMS  
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## United States Standards for Grades of Canned Blackberries and Other Similar Berries

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Authority: Agricultural Marketing Act of 1946, Secs. 203, 205, 60 Stat. 1087, as amended, 1090, as amended (7 U.S.C. 1622, 1624).

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Note: Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

**§52.551 Product description.**

**Canned blackberries** and other similar berries such as **boysenberries, dewberries, loganberries,** and **youngberries** is the product represented as defined in the Standards of Identity (21 CFR 145.120) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

**§52.552 Grades of canned berries.**

- (a) **U.S. Grade A or U.S. Fancy** is the quality of canned berries that possess similar varietal characteristics; that possess a good color; that are practically uniform in size; that are practically free from defects; that possess good character; that possess a normal flavor and odor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart, the total score is not less than 90 points: **Provided**, that the canned berries may possess a reasonably good color and may be reasonably uniform in size if the total score is not less than 90 points.
- (b) **U.S. Grade B or U.S. Choice** is the quality of canned berries that possess similar varietal characteristics; that possess a reasonably good color; that are reasonably uniform in size; that are reasonably free from defects; that possess reasonably good character; that possess a normal flavor and odor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 80 points: **Provided**, that the canned berries may be fairly uniform in size if the total score is not less than 80 points.
- (c) **U.S. Grade C or U.S. Standard** is the quality of canned berries that possess similar varietal characteristics; that possess a fairly good color; that may be fairly uniform in size; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that when scored in accordance with the scoring system outlined in this subpart, the total score is not less than 70 points.
- (d) **Substandard** is the quality of canned berries that fail to meet the requirements of U.S. Grade C or U.S. Standard.

**§52.553 Recommended designations of liquid media and Brix measurements for canned berries.**

**Cut-out** requirements for liquid media in canned berries are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. The recommended **cut-out** Brix measurement, as applicable, for the respective designations are as follows:

Designations	Brix measurements
<b>Extra heavy sirup; or Extra heavily sweetened fruit juice(s) and water; or Extra heavily sweetened fruit juice(s).</b>	24° or more but not more than 35°
<b>Heavy sirup; or Heavily sweetened fruit juice(s) and water; or Lightly sweetened fruit juice (s).</b>	19° or more but less than 24°
<b>Light sirup; or Lightly sweetened fruit juice(s) and water; or Lightly sweetened fruit juice(s).</b>	14° or more but less than 19°
<b>Slightly sweetened water; or Extra light sirup; or Slightly sweetened fruit juice(s) and water; or Slightly sweetened fruit juice(s).</b>	Less than 14°
<b>In water</b>	Not applicable
<b>In fruit juice(s) and water</b>	Not applicable
<b>In fruit juice(s)</b>	Not applicable

**§52.554 Recommended fill of container.**

The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of canned berries be filled with berries as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

**§52.555 Recommended minimum drained weight.**

The minimum drained weight recommendations are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned berries is determined by emptying the contents upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937 inch  $\pm$  3%, square openings) so as to distribute the product evenly, inclining the sieve to an angle of 17 to 20 degrees to facilitate drainage, and allowing to drain for two minutes. The drained weight (or drained berries) is the weight of the sieve and the berries less the weight of the dry sieve. A sieve 8 inches in diameter is used for containers less than 3 pounds, and a sieve 12 inches in diameter is used for containers 3 pounds or more.

**§52.556 Compliance with recommended drained weights.**

Compliance with the recommended drained weights for canned berries is determined by averaging the drained weights from all containers which are representative of a specific lot and such lot is considered as meeting the recommendations if: The average drained weight from all the containers meet the recommended drained weight; one-half or more of the containers meet the recommended drained weight; and the drained weights from the containers which do not meet the recommended drained weight are within the range of variability for good commercial practice.

**Table No. 1  
Recommended Minimum Drained Weight in Ounces of Canned Berries**

	Can dimensions (in inches)		Maximum capacity in water at 68° F. (in ounces)	Blackberries		Other berries	
	Diameter	Height		Extra heavy and heavy sirup	Light sirup and water	Extra heavy and heavy sirup	Light sirup and water
8 ounce .....	2-11/16	3-4/16	8.65	4-1/2	4-3/4	4-1/4	4-1/4
No. 303 .....	3-3/16	4-6/16	16.85	8-1/2	9-1/4	7-3/4	8-1/4
No. 2 .....	3-7/16	4-9/16	20.50	11	12	9-1/2	10
No. 10 .....	6-3/16	7	109.45	62	66	55	60
No. 10 (heavy pack) 1/ ..	6-3/16	7	109.45	.....	74	.....	70

1/ Canned berries in No. 10 containers (in water) may be certified with the additional statement **heavy pack**, provided they meet the minimum drained weight requirement specified.

**§52.557 Ascertaining the grade.**

(a) **General.** In addition to considering other requirements outlined in the standards the following factors are evaluated:

(1) **Factors not rated by score points.**

(i) **Varietal characteristics.**

(ii) **Flavor.**

(2) **Factors rated by score points.** The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors	Points
Color .....	20
Uniformity of size .....	20
Absence of defects .....	30
Character of fruit .....	<u>30</u>
Total Score .....	100

- (b) **Normal flavor and odor** means that the product is free from objectionable odors and objectionable flavors of any kind.

**§52.558     Ascertaining the rating for the factors which are scored.**

The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, **22 to 25 points** means 22, 23, 24, or 25 points).

**§52.559     Color.**

The factor of color refers to the color typical of the varietal group and to the intensity and brightness of such characteristic color.

- (a) **"A" classification.** Canned berries that possess a good color may be given a score of 18 to 20 points. **Good color** means that the canned berries possess a color typical of well-ripened berries for the varietal type that have been properly processed and are practically uniform and bright in color.
- (b) **"B" classification.** If the canned berries possess a reasonably good color, a score of 16 or 17 points may be given. **Reasonably good color** means that the canned berries possess a color typical of reasonably well-ripened berries for the varietal type that have been properly processed, and which color may be somewhat lacking in luster and may range in color from the lighter shades of reasonably well-ripened berries to the darker hues of well-ripened berries.
- (c) **"C" classification.** If the canned berries possess a fairly good color, a score of 14 or 15 points may be allowed. Canned berries that fall into this classification shall not be graded above U.S. Grade C or U.S. Standard, regardless of the total score for the product (this is a limiting rule). **Fairly good color** means that the canned berries possess a color typical of fairly well-ripened berries for the varietal type that have been properly processed, and which color may be variable but is not off-color.

- (d) **"SStd" classification.** Canned berries that fail to meet the requirements of paragraph (c) of this section, may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

**§52.560 Uniformity of size.**

- (a) **General.** The factor of uniformity of size refers to the uniformity of diameters of the canned berries. **Diameter** is the minimum diameter of the fruit of the berry measured at right angles to the stem axis that will pass through a rigid ring of the same diameter without using pressure.
- (b) **"A" classification.** If the canned berries are practically uniform in size, a score of 18 to 20 points may be given. **Practically uniform in size** means that the variation in size of the berries does not materially affect the appearance of the product and that with respect to canned blackberries, not more than 15 percent, by count, of the blackberries are less than 20/32 inch in diameter.
- (c) **"B" classification.** If the canned berries are reasonably uniform in size, a score of 16 or 17 points may be given. **Reasonably uniform in size** means that the variation in size of the berries does not seriously affect the appearance of the product and that with respect to canned blackberries, not more than 15 percent, by count, of the blackberries are less than 18/32 inch in diameter.
- (d) **"C" classification.** If the canned berries are fairly uniform in size, a score of 14 or 15 points may be given. Canned berries that fall into this classification shall not be graded above U.S. Grade C or U.S. Standard, regardless of the total score for the product (this is a limiting rule). **Fairly uniform in size** means that the canned berries may be variable in size and that with respect to canned blackberries more than 15 percent, by count, are less than 18/32 inch in diameter.

**§52.561 Absence of defects.**

- (a) **General.** The factor of absence of defects refers to the degree of freedom from harmless extraneous vegetable material and from damaged berries.
- (1) **Harmless extraneous vegetable material** means any vegetable substance (including, but not limited to, leaves, stems, or portions of stems, whether or not attached, caps or portions of caps, whether or not attached).



- (2) **Damaged** means any surface blemish or internal injury that materially affects the appearance or edibility of the berry (including, but not limited to, insect injury, pathological injury, hard berries, underdeveloped berries, and abnormally developed berries).
- (b) **"A" classification.** Canned berries that are practically free from defects may be given a score of 27 to 30 points. **Practically free from defects** means that harmless extraneous vegetable material may be present that does not more than slightly affect the appearance or edibility of the product; and that not more than 4 percent, by count, of the canned berries may be damaged.
- (c) **"B" classification.** If the canned berries are reasonably free from defects, a score of 24 to 26 points may be given. Canned berries that fall into this classification shall not be graded above U.S. Grade B or U.S. Choice, regardless of the total score for the product (this is a limiting rule). **Reasonably free from defects** means that harmless extraneous vegetable material may be present that does not more than materially affect the appearance or edibility of the product; and that not more than 8 percent, by count, of the canned berries may be damaged.
- (d) **"C" classification.** Canned berries that are fairly free from defects may be given a score of 21 to 23 points. Canned berries that fall into this classification shall not be graded above U.S. Grade C or U.S. Standard regardless of the total score for the product (this is a limiting rule). **Fairly free from defects** means that harmless extraneous vegetable material may be present that does not seriously affect the appearance or edibility of the product; and that not more than 15 percent, by count, of the canned berries may be damaged.
- (e) **"SStd" classification.** Canned berries which fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

**§52.562 Character of fruit.**

- (a) **General.** The factor of character refers to the degree of texture, and appearance as well as to the degree of disintegration of the berries.
- (1) A berry is considered **crushed** if more than 50 percent of the drupelets are crushed, broken or detached, or if the normal shape of the berry is otherwise materially affected or destroyed.

- (b) **"A" classification.** Canned berries that possess a good character may be given a score of 27 to 30 points. **Good character** means that the berries possess a firm, tender texture characteristic of well-ripened berries for the varietal type and are practically intact; that the berries and accompanying liquor are practically free from detached seed cells; and that not more than 5 percent, by weight, of blackberries may be crushed and not more than 10 percent, by weight, of dewberries, boysenberries, loganberries, or other similar types may be crushed.
- (c) **"B" classification.** If the canned berries have a reasonably good character, a score of 24 to 26 points may be given. Canned berries that fall into this classification shall not be graded above U.S. Grade B or U.S. Choice, regardless of the total score for the product (this is a limiting rule). **Reasonably good color** means that the berries may possess a reasonably tender texture characteristic of reasonably well-ripened berries to slightly over-ripe berries for the varietal type and are reasonably free from detached seed cells; and that not more than 10 percent, by weight, of blackberries may be crushed and not more than 15 percent, by weight, of dewberries, boysenberries, loganberries, or other similar types may be crushed.
- (d) **"C" classification.** Canned berries that possess a fairly good character may be given a score of 21 to 23 points. Canned berries that fall into this classification shall not be graded above U.S. Grade C or U.S. Standard, regardless of the total score for the product (this is a limiting rule). **Fairly good character** means that the berries may possess a fairly tender texture characteristic of fairly well-ripened berries to over-ripe berries for the varietal type and are fairly intact; and that not more than 20 percent, by weight, of the berries may be crushed.
- (e) **"SStd" classification.** Canned berries that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

**§52.563     Ascertaining the grade of a lot.**

The grade of a lot of canned berries covered by these standards is determined by the procedures set forth in the **Regulations Governing Inspection and Certification of Processed Fruits and Vegetables, Processed Products Thereof, and Certain Other Processed Food Products (7 CFR 52.1 through 52.83)**.

**§52.564 Score sheet for canned berries.**

Can size .....			
Can mark .....			
Label .....			
Net weight (in ounces) .....			
Vacuum readings (in inches) .....			
Drained weight (in ounces) .....			
Degree of sirup (Brix) .....			
Factors		Score Points	
Color .....	20	"A"	18-20
		"B"	16-17 <u>1/</u>
		"C"	14-15 <u>1/</u>
		"SStd"	0-13 <u>1/</u>
Uniformity of size .....	20	"A"	18-20
		"B"	16-17 <u>1/</u>
		"C"	14-15 <u>1/</u>
Absence of defects .....	30	"A"	27-30
		"B"	24-26 <u>1/</u>
		"C"	21-23 <u>1/</u>
		"SStd"	0-20 <u>1/</u>
Character of fruit .....	<u>30</u>	"A"	27-30
		"B"	24-26 <u>1/</u>
		"C"	21-23 <u>1/</u>
		"SStd"	0-20 <u>1/</u>
Total Score .....	100		
U.S. Grade .....			

1/ Indicates limiting rule

The U.S. Standards for Grades of Canned Blackberries and Other Similar Berries, as herein amended, shall become effective May 12, 1976 and thereupon will supersede the U.S. Standards for Grades of Canned Blackberries and Other Similar Berries which have been in effect since December 1, 1956.

Dated: April 6, 1976

Donald E. Wilkinson  
 Administrator  
 Agricultural Marketing Service