



United States Department of Agriculture

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United States Standards for Grades of Canned Dried Beans

Effective September 1, 1976
(Reprinted June 8, 2016)

This is a reprint of the United States Standards for Grades of Canned Dried Beans which have been in effect since September 1, 1976 and were updated to modify the format.

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 fresh and processed fruits, vegetables, and specialty crops 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 U.S. grade standards and inspection instructions for all fresh and processed fruits, vegetables, and specialty crops are available on the internet and upon request at the address below. These documents provide detailed interpretations of the grade standards and provide step-by-step procedures for grading the product.

Grade standards are issued by the U.S. Department of Agriculture (USDA) after careful consideration of all data and views submitted during rulemaking. The Department welcomes suggestions for improving the standards in future revisions. Comments may be submitted to, and copies of standards and inspection instructions obtained from:

Director, Specialty Crops Inspection Division
Specialty Crops Program,
USDA, Agricultural Marketing Service
1400 Independence Avenue, SW, STOP 0240
Washington, D.C. 20250

Authority: 7 U.S.C. 1621-1627.

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.

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United States Standards for Grades of Canned Dried Beans

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§52.411 Product Description.

Canned dried beans is the product prepared from dry mature beans or peas used for canning; but not including soybeans, sweet peas, or early peas. Any safe and suitable ingredients permissible under the provisions of the Federal Food, Drug, and Cosmetic Act may be used. The product is prepared by washing, soaking, blanching, cooking, or other processing. It is packed in hermetically sealed containers and sufficiently processed by heat to assure preservation.

§52.412 Types.

- (a) **White beans.**
- (b) **Lima beans.**
- (c) **Redbeans.**
- (d) **Pinto beans.**
- (e) **Pink beans.**
- (f) **Garbanzos or chick-peas.**
- (g) **Black beans.**
- (h) **Yelloweye beans.**
- (i) **Black-eye peas or field peas (Southern peas).**
- (j) **Mixed beans (two or more varietal types of beans in any proportions).**
- (k) **Beans of other colors or types (except soybeans, sweet peas, and early peas).**

§52.413 Styles.

- (a) **In tomato sauce** means packed with tomato pulp or a similar tomato product and any other safe and suitable ingredient(s). The sauce may be highly seasoned.
- (b) **In sweetened sauce** means packed with nutritive carbohydrate sweetening ingredient(s) and any other safe and suitable ingredient(s). The sauce may be highly seasoned.
- (c) **In brine** means packed in brine and any other safe and suitable ingredient(s).

§52.414 Grades.

- (a) **U.S. Grade A** is the quality of canned dried beans that has the following attributes:
- (1) Practically similar varietal characteristics (except mixed type);
 - (2) At least a reasonably good consistency for the styles of in tomato sauce and in sweetened sauce;
 - (3) Practically free from defects;
 - (4) Good character;
 - (5) Good flavor;
 - (6) Scores at least 17 points for color; and
 - (7) Totals not less than 90 points when scored in accordance with the scoring system outlined in this subpart.
- (b) **U.S. Grade B** is the quality of canned dried beans that has at least the following attributes:
- (1) Reasonably similar varietal characteristics (except mixed type);
 - (2) Reasonably good consistency for the styles of in tomato sauce and in in sweetened sauce;
 - (3) Reasonably free from defects;
 - (4) Reasonably good character;
 - (5) Reasonably good flavor;
 - (6) Reasonably good color; and
 - (7) Totals not less than 80 points when scored in accordance with the scoring system outlined in this subpart.
- (c) **Substandard** is the quality of canned dried beans that fails to meet the requirements of U.S. Grade B.

§52.415 Sample unit size.

Compliance with requirements for factors of quality is based on a sample unit consisting of the entire contents of one container, irrespective of container size.

§52.416 Determining the grade.

(a) **General.** The grade of canned dried beans is determined by considering, in addition to the requirements of the respective grade, the following factors:

(1) **Factor not rated by score points:**

- (i) Similar varietal characteristics;
- (ii) Consistency; and
- (iii) Flavor.

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

Factors:	Points
Color	20
Absence of defects	40
Character	40
Total Score	100

(b) **Definitions.**

(1) **Similar varietal characteristics:**

- (i) **Contrasting varieties** means dried beans of the same type or of other types that are of a noticeably different color, size, or shape from the dried beans of the predominating variety (such as red beans with white beans);
- (ii) **Varieties that blend** means dried beans of same type or of other types that are similar in color, size or shape to the dried beans of the predominating variety (such as pea beans with small white beans);

- (iii) **Practically similar varietal characteristics** means that the beans are practically alike in size, shape, color, general characteristics, and that there may be present not more than 0.5 percent, by weight, of contrasting varieties; and not more than 5 percent, by weight, of varieties that blend (not applicable to mixed type); and
- (iv) **Reasonably similar varietal characteristics** means that the bean are reasonably alike in size, shape, color, general characteristics, and that there may be present not more than 1 percent, by weight, of contrasting varieties; and not more than 10 percent, by weight, of varieties that blend (not applicable to mixed type).

(2) **Consistency:**

- (i) **Reasonably good consistency** means that the sauce is reasonably smooth and may be slightly grainy or slightly lumpy. The product may have a thick consistency but is practically free from matting and when emptied on a flat surface may have practically no separation of liquid; or, the product may have a thin consistency with separation of liquid, but it shall not be watery (not applicable to in brine style). Matting means compaction to the extent that the beans cannot be removed from the container without causing damage or excessive mushiness.

(3) **Flavor:**

- (i) **Good flavor** means that the product has a good normal flavor and odor, characteristic of the style of pack, and is free from objectionable flavors and objectionable odors of any kind; and
- (ii) **Reasonably good flavor** means that the product may be lacking in good flavor and odor, but is characteristic of the style of pack, and is free from objectionable flavors and objectionable odors of any kind.

§52.417 Determining the rating of the factors which are scored.

The essential variations within each factor which is scored are so described that the value is determined for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, 18 to 20 points means 18, 19, or 20 points).

§52.418 Color.

- (a) **Good color** means that the beans have a color that is bright and reasonably uniform, typical of the type; and that the sauce or brine has a color typical of the

style of pack. Canned dried beans that have a good color may be given a score of 18 to 20 points.

- (b) **Reasonably good color** means that the beans have a color that is fairly uniform, typical of the type; may be dull but not off-color; and that the sauce or brine has a color typical of the style of the pack. Canned dried beans that have a reasonably good color may be given a score of 16 to 17 points. Canned dried beans that score 16 points for color shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a partial limiting rule).
- (c) **Substandard.** Canned dried beans that fail to meet the requirements of Grade B may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§52.419 Absence of defects.

- (a) **General.** The factor of absence of defects refers to the degree of freedom from extraneous vegetable material, loose skin, broken and mashed beans, and blemished beans; or any other defects that may affect the appearance or eating quality of the product.
- (b) **Definitions:**
 - (1) **Loose skin** means skin or portions of a skin which have become separated wholly from the cotyledons;
 - (2) **Broken** means a cotyledon or portions of a cotyledon which have become separated; or a bean or portions of a bean with the skin or portions of the skin missing;
 - (3) **Mashed** means a bean that is crushed or flattened to the extent that the appearance is seriously affected;
 - (4) **Blemished** means a bean that is affected or damaged by any means to the extent that its appearance or eating quality is adversely affected;
 - (i) Slightly;
 - (ii) Materially;
 - (iii) Seriously; and
 - (5) **Extraneous vegetable material** means vegetable material common to the bean plant or other plants that is harmless upon eating and includes, but is not limited to, peas, lentils, cereal grains, and corn.

- (c) **Practically free from defects** means that the canned dried beans comply with the allowances in Table I. Canned dried beans that are practically free from defects may be given a score of 36 to 40 points.
- (d) **Reasonably free from defects** means that the canned dried beans comply with the allowances in Table II. Canned dried beans that are reasonably free from defects may be given a score of 32 to 35 points shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule).
- (e) **Substandard.** Canned dried beans that fail to meet the allowances for Grade B may be given a score of 0 to 31 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

TABLE I – ALLOWANCES FOR DEFECTS IN CANNED DRIED BEANS
U.S. GRADE A

Defects	Maximum amount of defects permitted	
	Sample unit	Sample average
	Percent of net weight	
Loose skin, broken, and mashed	5	
Total blemished (slightly, materially, and seriously)	3	
Materially blemished	2	
Seriously blemished	1	
Extraneous vegetable material	No limit	1 piece per 80 ounces net weight

TABLE II – ALLOWANCES FOR DEFECTS IN CANNED DRIED BEANS
U.S. GRADE B

Defects	Maximum amount of defects permitted	
	Sample unit	Sample average
	Percent of net weight	
Loose skin, broken, and mashed	10	
Total blemished (slightly, materially, and seriously)	6	
Materially blemished	4	
Seriously blemished	2	
Extraneous vegetable material	No limit	1 piece per 20 ounces net weight

§52.420 Character.

- (a) **General.** The factor of character refers to the degree of freedom from hard beans, mushy beans, beans with tough skins; and the overall texture of the product.
- (b) **Good character** means that the beans have a good, typical texture, that may be slightly soft or slightly firm; and that the skins are tender. Canned dried beans that have that the skins are tender. Canned dried beans that have a good character may be given a score of 36 to 40 points.
- (c) **Reasonably good character** means that the beans have a reasonably good, typical texture, that the beans may be firm or soft and that the presence of hard or mushy beans does not materially affect the eating quality; and that the skins may be slightly tough. Canned dried beans that have a reasonably good character may be given a score of 32 to 35 points and shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule).
- (d) **Substandard.** Canned dried beans that fail to meet the requirements of grade B may be given a score of 0 to 31 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§52.421 Determining the grade of a lot.

The grade of a lot of canned dried beans 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).

§52.422 Score sheet for canned dried beans.

Number, size, and kind of container			
Label			
Container marks or identification			
Net weight (ounces)			
Vacuum (inches)			
Type			
Style			
Factors		Grade	Score Points
Color	20	"A"	18-20
		"B"	16-17 ²
		"SStd"	0-15 ¹
Absence of defects	40	"A"	36-40
		"B"	32-35 ¹
		"SStd"	0-31 ¹
Character	40	"A"	36-40
		"B"	32-35 ¹
		"SStd"	0-31 ¹
Total Score	100		
Consistency ³			
Flavor and Odor			
Similar varietal characteristics ⁴			
U.S. Grade			

¹Indicates limiting rule.

²Indicates partial limiting rule

³ Not Applicable for the Style of In Brine

⁴ Not Applicable for Mixed Type