



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Processed
Products
Branch**

United States Standards for Grades of Canned Okra and Tomatoes and Canned Tomatoes and Okra

Effective date December 24, 1957

This is the first issue of the United States Standards of Grades of Canned Tomatoes and Okra and canned Okra and Tomatoes. These standards are issued by the Department after careful consideration of all data and views submitted. They were published in the **FEDERAL REGISTER** of November 23, 1957 (22 FR 9379), to become effective on December 24, 1957.

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
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**United States Standards for Grades of Canned Okra and Tomatoes and
Canned Tomatoes and Okra**

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Authority: §§ 52.3421 to 52.3432 issued under sec. 205, 60 Stat. 1090, as amended;
7 U.S.C. 1624.

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.

§52.3421 Product description.

Canned tomatoes and okra and canned okra and tomatoes, hereinafter called canned tomatoes and okra, is the product prepared from clean, sound, properly matured tomatoes of red or reddish varieties which may be canned, and the clean, sound, succulent, immature pods of either the green or white varieties of the okra plant which may be processed. The tomatoes have been prepared by trimming, washing, sorting, peeling, and coring. The okra is prepared by trimming, washing, and sorting, and may be whole or cut into pieces. The tomatoes and okra may be packed with or without a small amount of tomato juice or tomato puree and with or without such other ingredients permissible under the provisions of the Federal Food, Drug, and Cosmetic Act in accordance with good commercial practice. The product is sufficiently processed by heat to assure preservation in hermetically sealed containers.

§52.3422 Proportion of ingredients.

- (a)** Canned tomatoes and okra shall consist of 50 percent or more, by weight, of the tomato ingredient and not less than 12.5 percent nor more than 50 percent, by weight, of whole or cut okra.
- (b)** Canned okra and tomatoes shall consist of 50 percent or more, by weight, of whole or cut okra and not less than 12.5 percent nor more than 50 percent, by weight, of the tomato ingredient.
- (c)** Compliance with the requirement for proportions of ingredients will be determined by averaging the percent, by weight, of each ingredient in all of the containers in the sample: **Provided**, that any deviation from the prescribed proportion of ingredients in any one container is within the limits of good commercial practice.

§52.3423 Grades.

- (a)** **U.S. Grade A or U.S. Fancy** is the quality of canned tomatoes and okra that possess a good flavor; that possess a good color; that are practically free from defects; that possess a good character; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.
- (b)** **U.S. Grade C or U.S. Standard** is the quality of canned tomatoes and okra that possess a fairly good flavor; that possess fairly good color; that are fairly free from defects; that possess a fairly good character; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

- (c) **Substandard** is the quality of canned tomatoes and okra that fail to meet the requirements of U.S. Grade C or U.S. Standard.

§52.3424 Fill of container.

The recommended fill of container for canned tomatoes and okra is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container be filled as full of tomatoes and okra as practicable without impairment of quality and that the product shall fill the container to not less than 90 percent of its total capacity.

§52.3425 Ascertaining the grade.

- (a) **General.** In addition to considering other requirements outlined in the standards the following quality factors are evaluated in ascertaining the grade of the product:

- (1) Factor not rated by score points.

- (i) Proportion of ingredients.

- (2) Factors rated by score points.

The relative importance of each factor which is rated is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors	Points
Color	20
Flavor	20
Defects	30
Character	<u>30</u>
Total Score	100

§52.3426 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 each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, **26 to 30 points** means 26, 27, 28, 29, or 30 points).

§52.3427 Color.

- (a) **"A" classification.** Canned tomatoes and okra that possess a good color may be given a score of 17 to 20 points. **Good color** means that the tomato ingredient possesses a reasonably good red color that is typical of reasonably well ripened tomatoes and that the okra possesses the color of young tender okra, which ingredients have been properly prepared and properly processed and meet the following additional requirements:
- (1) **Tomatoes.** Not less than 50 percent, by weight, of the drained tomato ingredient possesses as much or more red than USDA Tomato Red Color Standard: **Provided**, that the color of not more than 10 percent, by weight, of the remaining portion of the drained tomato ingredient may be yellow and none is green in color.
- (2) **Okra.** The outer surface of the okra pods or pieces of pods possesses a color that is typical of young tender okra.
- (b) **"C" classification.** Canned tomatoes and okra that possess a fairly good color may be given a score of 14 to 16 points. Canned tomatoes and okra 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 tomato ingredient possesses a fairly good red color typical of fairly well ripened tomatoes and that the okra possesses the color of reasonably tender okra, which ingredients have been properly prepared and properly processed.
- (c) **"SStd" classification.** Canned tomatoes and okra that fail to meet the requirements of paragraph (b) 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).

§52.3428 Flavor.

- (a) **"A" classification.** Canned tomatoes and okra that possess a good flavor may be given a score of 17 to 20 points. **Good flavor** means that the product has a characteristic flavor and odor typical of well ripened tomatoes and young tender okra.
- (b) **"C" classification.** Canned tomatoes and okra that possess a fairly good flavor may be given a score of 14 to 16 points. Canned tomatoes and okra 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 flavor** means that the product may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

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

§52.3429 Defects.

- (a) **General.** The factor of defects refers to the degree of freedom from sand, grit, or silt; harmless extraneous material; tomato peel; tomato core material; small pieces of okra; and from damaged or seriously damaged tomato or okra ingredient.

(1) **Sand, grit, or silt** means any particle of earthy material.

(2) **Harmless extraneous material** means any extraneous vegetable substance (including, but not limited to, a leaf, unattached stem, or portions thereof) that is harmless.

(3) **Damaged** means that the appearance and eating quality of the product is materially affected by the presence of scarred, discolored, or blemished tomato ingredient and/or scarred, poorly trimmed okra ingredient, and small pieces of pod less than 3/8 inch in length, or other damage.

(4) **Seriously damaged** means that the appearance and eating quality of the product is seriously affected by the presence of damaged ingredients.

- (b) **"A" classification.** Canned tomatoes and okra that are practically free from defects may be given a score of 25 to 30 points. **Practically free from defects** means that the presence of sand, grit, or silt; harmless extraneous material; tomato peel; core material; and damaged and seriously damaged ingredients, individually or collectively, does not materially affect the appearance and eating quality of the product.

- (c) **"C" classification.** Canned tomatoes and okra that are fairly free from defects may be given a score of 21 to 24 points. Canned tomatoes and okra 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 the presence of sand, grit, or silt; harmless extraneous material; tomato peel; core material; and damaged and seriously damaged ingredients, individually or collectively, does not seriously affect the appearance and eating quality of the product.

- (d) **"SStd" classification.** Canned tomatoes and okra that fail to meet the requirements of paragraph (c) 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).

§52.3430 Character.

- (a) **General.** The factor of character refers to the texture and wholeness of the tomato ingredient and the tenderness and texture of the okra pods or pieces of pods.

(1) **Large piece of tomato ingredient** means a piece of tomato flesh that weighs not less than 1 ounce.

(2) **Small piece of tomato ingredient** means a piece of tomato flesh that weighs less than 1 ounce and that does not pass through a United States Standard 1/2-inch sieve.

- (b) **"A" classification.** Canned tomatoes and okra that possess a good character may be given a score of 26 to 30 points. **Good character** means that the tomato ingredient is composed of whole, almost whole, or large pieces of tomato flesh and that the okra pods or pieces of pods are fleshy and tender and practically intact, that the okra seed is in the early stages of development, and that not more than 2 percent, by count, of the pods or pieces of pods may possess fibrous material which is materially objectionable upon eating.

- (c) **"C" classification.** Canned tomatoes and okra that possess a fairly good character may be given a score of 21 to 25 points. Canned tomatoes and okra that fall into this classification on account of fibrous material shall not be graded above U.S. Grade C or U.S. Standard, regardless of the total score for the product (this is a partial limiting rule). **Fairly good character** means that the tomato ingredient may be predominantly in small pieces and that the okra pods and pieces of pods may have lost to a considerable extent their fleshy texture, that the units may be fairly tender but not excessively mushy, that the seeds may be in the later stages of maturity but are not hard, and that not more than 5 percent, by count, of the pods or pieces of pods may possess fibrous material which is materially objectionable upon eating.

- (d) **"SStd" classification.** Canned tomatoes and okra that fail to meet the requirements of paragraph (c) of this section with respect to fibrous material 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 partial limiting rule).

§52.3431 Ascertaining the grade of a lot.

The grade of a lot of canned tomatoes and okra 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 (7CFR 52.1 to 52.87).

§52.3432 Score sheet for canned tomatoes and okra and canned okra and tomatoes.

Size and kind of container			
Container mark or identification			
Label			
Net Weight (ounces)			
Vacuum readings (inches)			
Proportion of ingredients, - % Tomatoes, - % Okra			
Whole or Cut Okra			
Factors		Score Points	
Color	20	"A"	17-20
		"C"	14-16 <u>1/</u>
		"SStd"	0-13 <u>1/</u>
Flavor	20	"A"	17-20
		"C"	14-16 <u>1/</u>
		"SStd"	0-13 <u>1/</u>
Defects	30	"A"	25-30
		"C"	21-24 <u>1/</u>
		"SStd"	0-20 <u>1/</u>
Character	30	"A"	26-30
		"C"	21-25 <u>2/</u>
		"SStd"	0-20 <u>2/</u>
Total Score		100	
Grade			

1/ Indicates limiting rule.

2/ Indicates partial limiting rule.

The United States Standards for Grades of Canned Tomatoes and Okra and Canned Okra and Tomatoes (which is the first issue) contained in this subpart shall become effective 30 days after publication hereof in the Federal Register.

Dated: November 20, 1957.

Roy W. Lennartson
Deputy Administrator,
Marketing Service.

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