



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Processed
Products
Branch**

United States Standards for Grades of Canned Celery

Effective date February 9, 1982

This is the first issue of the United States standards for grades of Canned celery. This issue was published in the **FEDERAL REGISTER** of February 9, 1982 (47 FR 5880) to become effective February 9, 1982.

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 issues 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:

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United States Standards for Grades of Canned Celery

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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).

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.

§52.6571 Product description.

Canned celery is the product represented as defined in the applicable Standards of Identity for Certain Other Canned Vegetables (21 CFR 155.200) issued under the Federal Food, Drug, and Cosmetic Act.

§52.6572 Types of pack.

- (a) **Canned salad celery** (acidified).
- (b) **Canned cooked celery.**

§52.6573 Styles.

- (a) **Diced** means canned celery consisting of stalks that have been cut into approximately cube-shaped units.
- (b) **Sliced** or cut means canned celery consisting of stalks that are cut transversely into units approximately 19 mm (3/4 in) or less in length. Sliced may be one of the following sub-styles:
 - (1) **Straight cut** means canned celery stalks that are cut at approximately right angles to the length of the stalk.
 - (2) **Bias cut** means canned celery stalks that are cut at approximately 45° angle to the length of the stalk.
- (c) **Chopped** means canned celery consisting of stalks that have been randomly chopped into units of varying sizes and shapes.

§52.6574 Definitions of terms.

As used in there U.S. standards, unless otherwise required by the context, the following terms shall be construed, respectively, to mean:

- (a) **Basal portion** means the objectionable, fibrous material from the base of the celery plant or roots from below the base of the celery plant which affect the appearance or eating quality.
- (b) **Blemished** means any unit of celery which is affected internally or externally by discoloration, insect injury, pathological damage or any other cause to the extent that the appearance or eating quality is affected:
 - (1) materially; or

- (2) seriously.
- (c) **Brightness** means the extent that the overall appearance of the sample unit as a mass is affected by dullness from improper processing or any other cause.
- (1) **Canned celery** which has a good characteristic bright appearance typical of the type of pack may be assigned a score of 18 to 20 points.
- (2) **Canned celery** which has a reasonably good characteristic bright appearance typical of the type of pack may be assigned a score of 16 or 17 points and shall not be graded above U.S. Grade B, regardless of the total score for the product.
- (3) **Canned celery** that fails to meet the requirements for reasonably good characteristic bright appearance may be assigned a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product.
- (d) **Character** refers to the uniformity of texture and freedom from coarseness, stringiness, or toughness, with consideration given to the type of pack.
- (1) **Canned salad celery.**
- (i) **Good character** means celery which is uniform in texture, and is practically free from coarse, stringy, or tough units. The celery units are crisp and firm. Canned salad celery which has a good character may be assigned a score of 27 to 30 points.
- (ii) **Reasonably good character** means celery which lacks uniformity in texture, and is reasonably free from coarse, stringy, or tough units. The celery units lack crispness and firmness. Canned salad celery which has a reasonably good character may be assigned a score of 24 to 26 points and shall not be graded above U.S. Grade B, regardless of the total score for the product.
- (iii) **Canned salad celery** that fails to meet the requirements for reasonably good character may be assigned a score of 0 to 23 points and shall not be graded above Substandard, regardless of the total score for the product.

- (2) **Canned cooked celery.**
- (i) **Good character** means celery which is uniform in texture, practically free from coarse, stringy, or tough units, and is pliable and tender but not soft. Canned cooked celery that has a good character may be assigned a score of 27 to 30 points.
 - (ii) **Reasonably good character** means celery which lacks uniformity in texture, is reasonably free from coarse, stringy, or tough units, and is lacking pliability and tenderness, and may be soft but not mushy. Canned cooked celery that falls into this classification may be assigned a score of 24 to 26 points and shall not be graded above U.S. Grade B, regardless of the total score for the product.
 - (iii) **Canned cooked celery** that fails to meet the requirements for reasonably good character may be assigned a score of 0 to 23 points and shall not be graded above Substandard, regardless of the total score for the product.
- (e) **Chip** means any unit in diced style that has a volume that is less than one-half of a normal full size unit.
- (f) **Color.**
- (1) **Good color** means canned celery color which is uniform in the range between green to white units characteristic of the type of pack. Canned celery which has a good color may be assigned a score of 18 to 20 points.
 - (2) **Reasonably good color** means canned celery color which lacks uniformity in the range between green to white units characteristic of the type of pack. Canned celery which has a reasonably good color may be assigned a score of 16 or 17 points and shall not be graded above U.S. Grade B, regardless of the total score for the product.
 - (3) **Canned celery** that fails to meet the requirements for reasonably good color may be assigned a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product.
- (g) **Defects** refer to the freedom from extraneous vegetable material, mechanical damage, celery leaf material, blemished units, and basal portions.

- (1) **Practically free from defects** means celery which conforms with the applicable tolerances as specified in Table I. Canned celery which is practically free from defects may be assigned a score of 27 to 30 points.
- (2) **Reasonably free from defects** means celery which conforms with the applicable tolerances as specified in Table I. Canned celery which is reasonably free from defects may be assigned a score of 24 to 26 points and shall not be graded above U.S. Grade B, regardless of the total score for the product.
- (3) **Canned celery** that fails to meet the requirements for reasonably free from defects may be assigned a score of 0 to 23 points and shall not be graded above Substandard, regardless of the total score for the product.
- (h) **Extraneous vegetable material (EVM)** means any objectionable vegetable material from other than the celery plant which is harmless.
- (i) **Flavor and odor** means the freedom from objectionable flavor and odor of any kind.
- (j) **Large piece** means any unit in diced style that is larger than a normal full size unit to the extent that it materially affects the appearance of the sample.
- (k) **Leaf** means the celery leaf which is normally removed during processing and exceeds 0.64 cm (0.25 in) in the greatest dimension.
- (l) **Mechanical damage** means any unit of celery which is adversely affected by harvesting or processing equipment and includes sizing imperfections.
- (m) **Unit** means any individual slice, dice, cut, chop, heart, or piece of canned celery.
- (n) **Varietal characteristics** mean the appearance, stalk characteristics and any other indicator of the variety of celery.

§52.6575 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 celery be filled with celery as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§52.6576 [Reserved]

§52.6577 Recommended sample unit size.

The requirements for all factors of quality are based on evaluation of: 900 g of drained product or the entire drained contents of a container, whichever is lesser.

§52.6578 Grades.

(a) U.S. Grade A is the quality of canned celery that:

- (1)** Meets the applicable requirements of Table I; and
- (2)** Scores not less than 90 points.

(b) U.S. Grade B is the quality of canned celery that:

- (1)** Meets the applicable requirements of table I; and
- (2)** Scores not less than 80 points.

(c) Substandard is the quality of canned celery that fails to meet the requirements for **U.S. Grade B**.

§52.6579 Factors of quality.

The grade of a lot of canned celery is based on meeting the requirements for the following quality factors:

- (a) Varietal characteristics;**
- (b) Flavor and odor;**
- (c) Brightness;**
- (d) Color;**
- (e) Character; and**
- (f) Defects.**

§52.6580 Requirements for grades.

Table I - Canned Celery

<u>Factors of Quality</u>	<u>Grade A</u>	<u>Grade B</u>
Varietal characteristics	Similar	Similar
Flavor and odor	Normal	Normal
Brightness	Good (18 - 20 points)	Reasonably good (16 - 17 points) <u>1/</u>
Color	Good (18 - 20 points)	Reasonably good (16 - 17 points) <u>1/</u>
Character	Good (27 - 30 points)	Reasonably good (24 - 26 points) <u>1/</u>
Defects: (Drained weight basis) <u>2/</u>	(27 - 30 points)	(24 - 26 points) <u>1/</u>
	Tolerance	Tolerance
1. Blemished a. Materially b. Seriously	5% m/m 2% m/m	10% m/m 4% m/m
2. Basal Portion a. Fibrous material b. w/ roots attached	2% m/m 1% m/m	4% m/m 2% m/m
3. EVM	1 pc/900 g (31.7 oz)	2 pcs/900 g (31.7 oz)
4. Leaf Diced; chopped Sliced	20 pcs/900 g (31.7 oz) 10 pcs/900 g (31.7 oz)	40 pcs/900 g (31.7 oz) 20 pcs/900 g (31.7 oz)
5. Mechanical damage (a) Diced (chips plus large pieces) (b) Bias or straight cut [crushed units but not discolored plus units less than 3 mm (1/8 in)]	40% m/m 10% m/m	50% m/m 15% m/m
6. Other defects not specifically defined	slightly affect appearance or eating quality	materially affect appearance or eating quality

1/ Shall not be graded above U.S. Grade B.

2/ m/m indicates percentage by weight. Example: 10 percent m/m blemished material means 40 g in total 400 g drained celery.

Note: Chips in diced style may be separated by using the sieve method. All units that pass through the meshes of a 5/16 in (8 mm) sieve are counted as chips. The sieve to be used is a five-sixteenths (5/16 in) sieve as listed in Table I of **Standard Specifications for Sieve**, published March 1, 1940, in L.C. 584 National Bureau of Standards, U.S. Department of Commerce.

§52.6581 Sample size.

The sample size to determine the requirements of these standards shall be as specified in the sampling plans and procedures 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 - §52.83).

§52.6582 Lot quality requirements.

A lot of canned celery is considered as meeting the requirements for quality if:

- (a) The requirements specified in §52.6580 are met; and
- (b) The sampling plans and acceptance procedures in 7 CFR 52.38 are met.

Done at Washington, D.C., on: February 3, 1982

/s/
William T. Manley
Deputy Administrator
Marketing Program Operations