



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Processed
Products
Branch**

United States Standards for Grades of Frozen Melon Balls

Effective date June 25, 1962

This is the first issue of the United States Standards for Grades of Frozen Melon Balls published in the **FEDERAL REGISTER** of May 24, 1962 (27 FR 4872) to become effective June 25, 1962.

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:

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United States Standards for Grades of Frozen Melon Balls

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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.

§52.5361 Product description.

Melon balls are spheres of melon flesh prepared from suitable varieties of sound, fresh Cantaloupe (*Cucumis melo*) melons and/or sound, fresh Honey Dew (*indorus*) melons to which melon balls prepare from sound, fresh melons of a definitely different but suitable variety may be added. The balls are prepared and washed in a manner to assure a clean and wholesome product. They are properly drained before filling into containers; may include a suitable fruit and/or vegetable garnish; may be packed with the addition of nutritive or nonnutritive sweetening ingredient(s) including sirup and any other ingredient permissible under the provisions of the Federal Food, Drug, and Cosmetic Act; and are prepared and frozen in accordance with good commercial practice an maintained at temperatures necessary for the preservation of the product.

§52.5362 Types of frozen melon balls.

- (a) **Cantaloupe.** Cantaloupe type consists entirely of frozen melon balls derived from Cantaloupe melons.
- (b) **Honey Dew.** Honey Dew type consists entirely of frozen melon balls derived from Honey Dew melons.
- (c) **Mixed-Cantaloupe and Honey Dew.** This type consists of not less than 50 percent, by weight, of units derived from Cantaloupe melons and not less than 33-1/3 percent, by weight, of units derived from Honey Dew melons.
- (d) **Mixed-Honey Dew and Cantaloupe.** This type consists of not less than 33-1/3 percent, by weight, of units derived from Cantaloupe melons.
- (e) **Other types.** Other types refer to:
 - (1) Melon balls derived from a single variety of melon or mixture of melon types other than Cantaloupe or Honey Dew; or
 - (2) Melon balls of any single type, or any mixture, of Cantaloupe or Honey Dew to which has been added melon balls of a different suitable variety of melon; or
 - (3) Any mixture of Cantaloupe or Honey Dew melon balls that do not meet the respective requirements of paragraph (c) or (d) of this section.

§52.5363 Grades for frozen melon balls.

(a) U.S. Grade A or U.S. Fancy is the quality of frozen melon balls that:

- (1)** Possess a good flavor and odor;
- (2)** Have good color;
- (3)** Are practically uniform in size and shape;
- (4)** Are practically free from defects;
- (5)** Have good character; and
- (6)** Score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) U.S. Grade B or U.S. Choice is the quality of frozen melon balls that:

- (1)** Possess a reasonably good flavor and odor;
- (2)** Have reasonably good color;
- (3)** Are reasonably uniform in size and shape;
- (4)** Are reasonably free from defects;
- (5)** Have reasonably good character; and
- (6)** Score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) Substandard is the quality of frozen melon balls that fails the requirements of **U.S. Grade B**.

§52.5364 Ascertaining the grade of a sample unit.

(a) General. In addition to other requirements outlined in this standard, the following quality factors are evaluated:

- (1)** Factors not rated by score points.
 - (i)** Flavor and odor.

- (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 each factor is:

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

- (b) **When ascertained.** The grade of frozen melon balls is determined immediately after thawing to the extent that the units are substantially free of ice crystals.

(c) **Categories of Flavor and Odor.**

- (1) **Good flavor and odor** is the pleasant flavor and odor normally expected of well-ripened melon units of the variety or varieties used. Flavor and odor of any garnish use shall be normal.
- (2) **Reasonably good flavor and odor** is the flavor and odor normally expected of reasonably well-ripened units of the variety or varieties used. This flavor and odor may be slightly **flat**, but is free from objectionable flavors or objectionable odors of any kind. Flavor and odor of any garnish used shall be normal.

§52.5365 Ascertaining the rating for the factors which are scored.

The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical ranges within each factor are inclusive. (For example, **18 to 20 points** means 18, 19, or 20 points.)

§52.5366 Color.

- (a) **"A" classification.** Frozen melon balls of any type that possess good color may be given a score of 18 to 20 points. **Good color** means that any included garnish shall have a uniform and bright color that is typical for the garnish and that does not detract from the overall appearance of the melon units; and that the melon balls:

- (1) Have a bright over-all appearance;

- (2) Possess a reasonably uniform color which is typical for well-ripened melons of the variety or varieties used;
 - (3) May have present not more than 10 percent, by count, of units which may have a reasonably bright appearance or may possess color which is typical for reasonably well-ripened melon flesh;
 - (4) Are free from exceptionally pale Cantaloupe units, dark green Honey Dew units, and units that otherwise fail **reasonably good color**.
- (b) **"B" classification.** Frozen melon balls of any type that possess reasonably good color may be given a score of 16 or 17 points. Frozen melon balls that fall into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule). **Reasonably good color** means that any include garnish has a reasonably uniform and reasonably bright color that is typical for the garnish and that does not materially detract from the over-all appearance of the melon units; and that the melon balls:
- (1) Have a reasonable bright over-all appearance;
 - (2) Possess a color which is typical for reasonably well-ripened melon flesh.
 - (3) May have present not more than 10 percent, by count, of units which may lack a reasonably bright appearance or may possess color which is not typical of well-ripened or reasonably well-ripened melon flesh;
 - (4) In the case of **Cantaloupe type**, not more than 10 percent, by count, of units may be exceptionally pale;
 - (5) In the case of **Honey Dew type**, not more than 10 percent, by count, of units may be dark green; and
 - (6) In the case of either **Mixed-Cantaloupe and Honey Dew** or **Mixed-Honey Dew and Cantaloupe** types, not more than a total of 10 percent, by count, of all units may be exceptionally pale Cantaloupe units and/or dark green Honey Dew units.
- (c) **"SStd" classification.** Frozen melon balls that fail to meet the requirements of paragraph (b) of this section 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).

§52.5367 Uniformity of size and shape.

(a) Definitions of terms.

- (1) A spherical unit** in frozen melon balls means a unit which has the appearance of three-fourths or more of a sphere.
- (2) An almost spherical unit** in frozen melon balls means a unit which has the appearance of more than one-half of a sphere but less than three-fourths of a sphere.
- (3) A misshapen unit** in frozen melon balls means a unit which appears to be one-half of a sphere or less or is otherwise materially misshapen.

(b) "A" classification. Frozen melon balls that are practically uniform in size and shape may be given a score of 27 to 30 points. **Practically uniform in size and shape** means that:

- (1)** The percentages, by count, of **almost spherical units** and **misshapen units** do not exceed the allowances for "A" classification in Table I of this subpart; and
- (2)** Notwithstanding the applicable allowances in Table I, the **almost spherical units** or **misshapen units**, either individually or collectively, do not materially affect the appearance of the product.

(c) "B" classification. Frozen melon balls that are reasonably uniform in size and shape may be given a score of 24 to 26 points. Frozen melon balls that fall into this classification shall not be graded above U.S. Grade B (this is a limiting rule). **Reasonably uniform in size and shape** means that:

- (1)** The percentages, by count, of **almost spherical units** and **misshapen units** do not exceed the allowances for "B" classification in Table I of this subpart; and
- (2)** Notwithstanding the applicable allowances in Table I, the **almost spherical units** or **misshapen units**, either individually or collectively, do not seriously affect the appearance of the product.

(d) "SStd" classification. Frozen melon balls that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 23 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 Uniformity of Size and Shape in Frozen Melon Balls

	"A" classification	"B" classification
Spherical units	80% or more (by count).	60% or more (by count).
Almost spherical units and misshapen units.	Total-20% or less (by count) but no more than-	Total-40% or less (by count) but no more than-
Misshapen units	3% (by count) --	20% (by count).

§52.5368 Absence of defects.

- (a) **General.** The factor of absence of defects refers to the degree of freedom from exterior rind, interior rind, melon seeds, membrane material, and from any other defects which detract from the appearance or edibility of the product.
- (b) **Definitions of terms and defects.**
- (1) The **area** of a rind spot is that which is equivalent to the area of a circle of the diameter stated or defined in this section.
- (2) A **minor rind spot** on a Cantaloupe unit is an area of light green interior melon rind which measures 5/16 inch or less in diameter or is an area of dark green interior melon rind which measures 1/8 inch or less in diameter.
- (3) A **minor rind spot** on a Honey Dew unit or on a unit of other melon types is an area of interior melon rind which measures 5/16 inch or less in diameter.
- (4) A **major rind spot** on a Cantaloupe unit is an area of light green interior melon rind exceeding 5/16 inch in diameter or is an area of dark green interior melon rind exceeding 1/8 inch in diameter.
- (5) A **major rind spot** on a Honey Dew unit or on a unit of other melon types is an area of interior melon rind exceeding 5/16 inch in diameter.

- (6) A **serious rind spot** is a spot of rind on a melon ball unit, part or all of which is exterior rind.
 - (7) **Seeds** are melon seeds which may be attached to a melon ball unit or may be loose.
 - (8) **Membrane material** is material other than seeds which makes up the placenta of a melon.
- (c) **"A" classification.** Frozen melon ball that are practically free from defects may be given a score of 27 to 30 points. **Practically free from defects** means there may be present:
- (1) Not more than 20 percent, by count, of units with rind spots: **Provided**, that not more than 5 percent, by count, may be major rind spots and that not more than 2-1/2 percent, by count, may be serious rind spots. (One unit in a container is permitted to possess a minor rind spot, major rind spot, or serious rind spot if such unit exceeds the allowable percentage: **Provided**, that in all sample units comprising the sample such units do not, on the average, exceed the allowable percentage);
 - (2) Not more than an average of one seed per 16 ounces net weight: **Provided**, that no individual container may contain more than one seed per 4 ounces net weight or fraction thereof; and
 - (3) No membrane material or other defects which detract more than slightly from the appearance of the product.
- (d) **"B" classification.** Frozen melon balls that are reasonably free from defects may be given a score of 24 to 26 points. Frozen melon balls that fall into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule). **Reasonably free from defects** means that there may be present:
- (1) Not more than 40 percent, by count, of units with rind spots: **Provided**, that not more than 10 percent, by count, may be major rind spots and that not more than 5 percent, by count, may be serious rind spots (one unit in a container is permitted to possess a minor rind spot, major rind spot, or serious rind spot if such unit exceeds the allowable percentage: **Provided**, that in all sample units comprising the sample such units do not, on the average, exceed the allowable percentage);

- (2) Not more than an average of two seeds per 16 ounces net weight: **Provided**, that no individual container may contain more than one seed per 2 ounces net weight or fraction thereof; and
 - (3) No membrane material or other defects which materially detract from the appearance of the product.
- (e) **"SStd" classification.** Frozen melon balls that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 23 points and shall not be graded above **Substandard**, regardless of the total score of the product (this is a limiting rule).

§52.5369 Character.

- (a) **General.** The factor of character refers to the degree of ripeness, the texture, and tenderness of the melon ball units.
- (b) **"A" classification.** Frozen melon balls that have good character may be given a score of 18 to 20 points. **Good character** means that the melon ball units:
 - (1) Possess a tender texture typical of mature, well-ripened, properly prepared, and properly processed melon units; and
 - (2) Consists of not more than 10 percent, by count, of units which are excessively soft, mushy, excessively frayed, fibrous, tough, or rubbery: **Provided**, that not more than 5 percent, by count, are tough or rubbery (one unit in a container is permitted to be excessively soft, mushy, excessively frayed, fibrous, tough, or rubbery if such unit exceeds the allowable percentage: **Provided**, that in all sample units comprising the sample such units of fruit do not, on the average, exceed the allowable percentages).
- (c) **"B" classification.** Frozen melon balls that have reasonably good character may be given a score 16 or 17 points. Frozen melon balls that fall into this classification shall not be grade above U.S. Grade B, regardless of the total score for the product (this is a limiting rule). **Reasonably good character** means that the melon ball units:
 - (1) Possess a reasonably tender texture typical of reasonably mature, reasonably well-ripened, properly prepared, and

- (2) Consists of not more than 20 percent, by count, of units which are excessively soft, mushy, excessively frayed, fibrous, tough, or rubbery: **Provided**, that not more than 10 percent, by count, are tough or rubbery (one unit in a container is permitted to be excessively soft, mushy, excessively frayed, fibrous, tough, or rubbery if such unit exceeds the allowable percentage: **Provided**, that in all sample units comprising the sample such units of fruit do not, on the average, exceed the allowable percentages).
- (d) **"SStd" classification.** Frozen melon balls that fail to meet the requirements of paragraph (c) of this section 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).

§52.5370 Ascertaining the grade of a lot.

The grade of a lot of frozen melon balls 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).

§52.5371 Score sheet for frozen melon balls.

Number, size and kind of container			
Container mark or identification			
Label			
Net weight (ounces)			
Type			
Diameter of units - inch; count - (per)			
Factors		Score Points	
Color	20	"A"	18-20
		"B"	16-17 <u>1/</u>
		"SStd"	0-15 <u>1/</u>
Uniformity of size and shape	30	"A"	27-30
		"B"	24-26 <u>1/</u>
		"SStd"	0-23 <u>1/</u>
Absence of defects	30	"A"	27-30
		"B"	24-26 <u>1/</u>
		"SStd"	0-23 <u>1/</u>
Character	<u>20</u>	"A"	18-20
		"B"	16-17 <u>1/</u>
		"SStd"	0-15 <u>1/</u>
Total Score	100		
Flavor and odor			
U.S. Grade			

1/ Indicates limiting rule.

The United States Standards for Grades of Frozen Melon Balls (which is the first issue) contained in this subpart shall become effective 30 days after the date of publication hereof in the **Federal Register**.

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G.R. Grange,
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Marketing Services.

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