



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Processed
Products
Branch**

United States Standards for Grades of Processed Raisins

Effective date December 1, 1978

This is the seventh issue, as amended, of the United States Standards for Grades of Processed Raisins published in the **FEDERAL REGISTER** of November 7, 1978 (43 FR 51753) to become effective December 1, 1978. This issue supersedes the seventh issue, which has been in effect since September 1, 1976.

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
U.S. Department of Agriculture
P.O. Box 96456, Rm. 0709, So. Bldg.
Washington, D.C. 20090-6456

United States Standards for Grades of Processed Raisins

Section	Page No.
§52.1841	Product description. 2
§52.1842	Product description of layer or cluster raisins with seeds. 2
§52.1843	Summary of types (varieties) of processed raisins. 2
§52.1844	Definition of terms. 3
§52.1845	Sizes of seedless raisins. 4
§52.1846	Grades of seedless raisins. 5
§52.1847	Colors of golden seedless raisins. 7
§52.1848	Sizes of golden seedless raisins. 7
§52.1849	Grades of golden seedless raisins. 7
§52.1850	Sizes of raisins with seeds - except layer or cluster. 8
§52.1851	Sizes of raisins with seeds - layer or cluster. 9
§52.1852	Grades of raisins with seeds - except layer or cluster. 9
§52.1853	Grades with seeds - layer or cluster. 11
§52.1854	Sizes of Sultana Raisins. 13
§52.1855	Grades of Sultana Raisins. 13
§52.1856	Sizes of Zante Currant Raisins. 15
§52.1857	Grades of Zante Currant Raisins. 15
§52.1858	Grades of mixed types of varieties of raisins. 17

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.

§52.1841 Product description.

Processed Raisins are dried grapes of the Vinifera varieties, such as Thompson Seedless (Sultanina), Muscat of Alexandria, Muscatel Gordo Blanco, Sultana, Black Corinth or White Corinth. The processed raisins are prepared from clean, sound, dried grapes; are properly stemmed and capstemmed except for cluster or uncapstemmed raisins; are properly seeded in seeded styles; are sorted or cleaned, or both; and except for cluster or uncapstemmed raisins, are washed in water to assure a wholesome product.

§52.1842 Product description of layer or cluster raisins with seeds.

Raisins with Seeds that are referred to as **Layer or Cluster raisins** means that the raisins have not been detached from the main bunch.

§52.1843 Summary of types (varieties) of processed raisins.

- (a)** Type I - Seedless Raisins.
 - (1)** Natural.
 - (2)** Dipped, Vine-dried, or similarly processed raisins.
- (b)** Type II - Golden Seedless Raisins.
- (c)** Type III - Raisins with Seeds.
 - (1)** Natural.
 - (i)** Seeded (seeds removed).
 - (ii)** Unseeded-capstemmed (loose).
 - (iii)** Unseeded-uncapstemmed (loose).
 - (iv)** Layer (or Cluster).
 - (2)** Dipped, Vine-dried, or other similarly processed raisins.
 - (i)** Seeded (seeds removed).
 - (ii)** Unseeded-capstemmed (loose).
 - (iii)** Unseeded-uncapstemmed (loose).
- (d)** Type IV - Sultana Raisins.

- (e) Type V - Zante Currant Raisins.
 - (i) Unseeded.
 - (ii) Seeded.
- (f) Type VI - Mixed Types or Varieties of Raisins. A mixture of two or more different types (varieties) of raisins including sub-types outlined in this section but other than:
 - (1) Mixtures containing Layer or Cluster Raisins with seeds;
 - (2) Mixtures containing Unseeded-capstemmed and Unseeded-uncapstemmed Raisins with Seeds; and
 - (3) Mixture of Seeded and Unseeded Raisins with Seeds.

§52.1844 Definition of terms.

- (a) **Capstems** means small woody stems exceeding 1/8-inch in length which attach the raisins to the branches of the bunch.
- (b) **A piece of stem** means a portion of the branch or main stem.
- (c) **Seeds** refers to whole, fully developed seeds which have not been removed during the processing of seeded Raisins with Seeds.
- (d) **Damaged raisins** means raisins affected by sunburn, scars, insect injury, mechanical injury, or other similar means which seriously affect the appearance, edibility, keeping quality, or shipping quality of the raisins. In seeded Raisins with Seeds, mechanical injury resulting from normal seeding operations is not considered damaged.
- (e) **Sugared** means either external or internal sugar crystals are present and the accumulation of such crystallized fruit sugars in the flesh or on the surface of the raisins is readily apparent.
- (f) **Grit, sand, or silt** means any particle of earthy material.
- (g) **Moisture** means the percentage by weight of the processed raisins, exclusive of branch and heavy stem material, that is moisture when determined by the **Dried Fruit Moisture Tester Method** or in accordance with other methods that give equivalent results.

- (h) **Slightly discolored** means a raisin affected by a brown to dark brown discolored area around the capstem end of the raisin that is less than the area of a circle 1/8-inch in diameter.
- (i) **Discolored** means a raisin affected by a brown to dark brown discolored area around the capstem end of the raisin that equals or exceeds the area of a circle 1/8-inch in diameter; **Provided**, that the overall appearance, keeping quality, and edibility of the product are not seriously affected.
- (j) **Well-matured** means raisins that are full-fleshed, may have fine wrinkles and are rounded in appearance.
- (k) **Reasonably well-matured** means raisins that are reasonably full-fleshed and may have shallow wrinkles with thick edged ridges.
- (l) **Fairly well matured** means raisins that are thin-fleshed and angular in appearance.
- (m) **Substandard development** means raisins that are practically lacking in flesh.
- (n) **Undeveloped** refers to extremely light berries that are lacking in sugary tissue indicating incomplete development; are reddish in color; are completely shriveled; have fine wrinkles on smaller units and moderately deep wrinkles on slightly larger units; and are commonly referred to as **worthless**.

§52.1845 Sizes of seedless raisins.

The size designations and measurement requirements for the respective sizes are:

- (a) **Select size raisins** means that no more than 60 percent, by weight, of all the raisins will pass through round perforations 22/64-inch in diameter, but not more than 10 percent, by weight, of all the raisins may pass through round perforations 20/64-inch in diameter.
- (b) **Small or midget size raisins** means that 95 percent, by weight, of all the raisins will pass through round perforations 24/64-inch in diameter, and not less than 70 percent, by weight, of all raisins will pass through round perforations 22/64-inch in diameter.
- (c) **Mixed size raisins** means a mixture which does not meet either the requirements for **select** size; or for **small or midget** size.

§52.1846 Grades of seedless raisins.

- (a) U.S. Grade A** is the quality of Seedless Raisins that have similar varietal characteristics; that have a good typical color; that have a good characteristic flavor; that show development characteristics of raisins prepared from well-matured grapes with not less than 80 percent, by weight, of raisins that are well-matured or reasonably well-matured; that contain not more than 18 percent, by weight, of moisture for all varieties of Seedless Raisins except the Monukka variety, which may contain not more than 19 percent, by weight, of moisture; and that meet the additional requirements outlined in Table I of this subpart.
- (b) U.S. Grade B** is the quality of Seedless Raisins that have similar varietal characteristics; that have a reasonably good typical color; that have a good characteristic flavor; that show development characteristics of raisins prepared from reasonably well-matured grapes with not less than 70 percent, by weight, of raisins that are well-matured or reasonably well-matured; that contain not more than 18 percent, by weight, of moisture for all varieties of Seedless Raisins except the Monukka variety, which may contain not more than 19 percent, by weight, of moisture; and that meet the additional requirements outlined in Table I of this subpart.
- (c) U.S. Grade C** is the quality of Seedless Raisins that have similar varietal characteristics; that have a fairly good typical color; that have a fairly good flavor; that show development characteristics of raisins prepared from fairly well-matured grapes with not less than 55 percent, by weight, of raisins that are well-matured or reasonably well-matured; that contain not more than 18 percent, by weight, of moisture for all varieties of Seedless Raisins except the Monukka variety, which may contain not more than 19 percent, by weight, of moisture; and that meet the additional requirements outlined in Table I of this subpart.
- (d) Substandard** is the quality of Seedless Raisins that fail to meet the requirements of U.S. Grade C.

TABLE I

ALLOWANCES FOR DEFECTS IN TYPE I, SEEDLESS RAISINS AND TYPE II, GOLDEN SEEDLESS RAISINS

Defects	U.S. Grade A	U.S. Grade B	U.S. Grade C
	Maximum count (per 96 ounces)		
Pieces of stem	1	2	4
	Maximum count (per 16 ounces)		
Capstems	15	25	35
	Maximum (percent by weight)		
Sugar	5	10	15
Discolored, damaged, or moldy raisins	4	6	9
Provided these limits are not exceeded:			
Damaged	2	3	5
Moldy	2	3	4
Substandard Development and Undeveloped	Total	Total	Total
Select size	1	1-1/2	2
Mixed size	1	2	3
Small (Midget) size	2	3	5
	Appearance or edibility of product:		
Slightly discolored or damaged by fermentation or any other defect not described above	May not be affected.	May not be more than slightly affected.	May not be materially affected.
Grit, sand or silt	None of any consequence may be present that affects the appearance or edibility of the product.		Not more than a trace may be present that affects the appearance or edibility of the product.

§52.1847 Colors of golden seedless raisins.

The color of Golden Seedless Raisins is not a factor of quality for the purposes of these grades. The color requirements applicable to the respective color designations are as follows:

- (a) **Well colored** means that the raisins are practically uniform in color and may range from yellow or golden to light amber color with a predominating yellow or golden color and that not more than 1/2 of one percent, by weight, of all the raisins may be definitely dark berries.
- (b) **Reasonably well colored** means that the raisins are reasonably uniform in color and may range from yellow or golden or greenish yellow to light amber wherein the predominating color may be greenish yellow or light amber and that not more than three percent, by weight, of all the raisins may be definitely dark berries.
- (c) **Fairly well colored** means that the raisins are fairly uniform in color and may range from yellow or greenish yellow to amber or light greenish amber and that not more than six percent, by weight, of all the raisins may be definitely dark berries.
- (d) **Colored** means that the raisins may be variable in color and may range from yellowish green to dark amber or dark greenish amber; that not more than 20 percent, by weight, of all the raisins may be definitely dark berries.
- (e) **Definitely dark berries** means raisins which are definitely darker than dark amber and characteristic of naturally **raisined** grapes.

§52.1848 Sizes of golden seedless raisins.

The size designation and measurement requirements for the respective sizes of Golden Seedless Raisins are the same as for Seedless Raisins (See Sec. 52.1845).

§52.1849 Grades of golden seedless raisins.

Except for color, the grades of Golden Seedless Raisins are the same as for Seedless Raisins (See Sec. 52.1846 and Table I).

§52.1850 Sizes of raisins with seeds - except layer or cluster.

The sizes of Raisins with Seeds - except for Layer or Cluster Raisins with Seeds, are not incorporated in the grades of the finished product since size, as such, is not a factor of quality for the purposes of these grades. The common size designations and measurement requirements applicable thereto include, but are not limited to, the following:

(a) Seeded.

- (1) Select size raisins** means that not more than 70 percent, by weight, of the raisins will pass through round perforations 34/64-inch in diameter; and not more than five percent, by weight, of all the raisins will pass through round perforations 22/64-inch in diameter.
- (2) Small or midget size raisins** means that all of the raisins will pass through round perforations 34/64-inch in diameter and not less than 90 percent, by weight, of all the raisins will pass through round perforations 22/64-inch in diameter.
- (3) Mixed size raisins** means a mixture which does not meet either the requirements for **select** size or for **small** (or **midget**) size.

(b) Unseeded.

- (1) 4 Crown** means raisins that will not pass through round perforations 42/64-inch in diameter.
- (2) 3 Crown** means raisins that will pass through round perforations 42/64-inch in diameter but will not pass through round perforations 34/64-inch in diameter.
- (3) 2 Crown** means raisins that will pass through round perforations 34/64-inch in diameter but will not pass through round perforations 24/64-inch in diameter.
- (4) 1 Crown** means raisins that will pass through round perforations 24/64-inch in diameter.

§52.1851 Sizes of raisins with seeds - layer or cluster.

The size of Layer or Cluster Raisins with Seeds is incorporated in the grades of the finished product. The size designation and measurement as applicable to layer or cluster raisins with seeds are:

- (a) **3 Crown Size or Larger.** 3 Crown size or larger in Layer or Cluster Raisins with Seeds means that the raisins, exclusive of stems and branches, are such size that they will not pass through round perforations 3/4-inch in diameter.

§52.1852 Grades of raisins with seeds - except layer or cluster.

- (a) **U.S. Grade A** is the quality of Raisins with Seeds that have similar varietal characteristics; that have a good typical color with not more than 10 percent, by weight, that may be dark reddish-brown berries; that have a good characteristic flavor; that show development characteristics of raisins prepared from well-matured grapes; with not less than 80 percent, by weight, of raisins that are well-matured or reasonably well-matured; that contain not more than 18 percent, by weight, of moisture, except that any seeded raisins may contain not more than 19 percent, by weight, of moisture; and meet the additional requirements as outlined in Table II of this subpart.
- (b) **U.S. Grade B** is the quality of Raisins with Seeds that have similar varietal characteristics; that have a reasonably good typical color with not more than 15 percent, by weight, that may be dark reddish-brown berries; that have a good characteristic flavor; that show development characteristics of raisins prepared from reasonably well-matured grapes; with not less than 70 percent, by weight, of raisins that are well-matured or reasonably well-matured; that contain not more than 18 percent, by weight, of moisture, except that any seeded raisins may contain not more than 19 percent, by weight, of moisture; and meet the additional requirements as outlined in Table II of this subpart.
- (c) **U.S. Grade C** is the quality of Raisins with Seeds that have similar varietal characteristics; that have a fairly good typical color with not more than 20 percent, by weight, that may be dark reddish-brown berries; that have a fairly good flavor; that show development characteristics of raisins prepared from fairly well-matured grapes; that contain not more than 18 percent, by weight, of moisture, except that any seeded raisins may contain not more than 19 percent, by weight, of moisture; and meet the additional requirements as outlined in Table II of this subpart.
- (d) **Substandard** is the quality of Raisins with Seeds that fail to meet the requirements of U.S. Grade C.

**TABLE II
ALLOWANCES FOR DEFECTS IN RAISINS WITH SEEDS
EXCEPT LAYER OR CLUSTER**

Defects	U.S. Grade A	U.S. Grade B	U.S. Grade C
	Maximum count (per 32 ounces)		
Pieces of stem	1	2	3
	Maximum count (per 16 ounces)		
Capstems in other than uncapstemmed types	10	15	20
Seeds in seeded types	12	15	20
Loose capstems in uncapstemmed types	20	20	20
	Maximum (percent by weight)		
Sugar	5	10	15
Discolored, damaged, or moldy raisins	5	7	9
Provided these limits are not exceeded:			
Damaged	3	4	5
Moldy	2	3	4
Substandard Development and Undeveloped	2	5	8
	Appearance or edibility of product:		
Slightly discolored or damaged by fermentation or any other defect not described above	May not be affected.	May not be more than slightly affected.	May not be more than materially affected.
Grit, sand or silt	None of any consequence may be present that affects the appearance or edibility of the product.		Not more than a trace may be present that affects the appearance or edibility of the product.

§52.1853 Grades with seeds - layer or cluster.

- (a) U.S. Grade A** is the quality of Layer or Cluster Raisins with Seeds that have similar varietal characteristics; that have a good typical color; that have a good characteristic flavor; that are uniformly cured and show development characteristics of raisins prepared from well-matured grapes; that contain not more than 23 percent, by weight, of moisture; that not less than 30 percent, by weight, of the raisins, exclusive of stems and branches, are 3-Crown size or larger; and that meet the following additional requirements as outlined in Table III of this subpart.
- (b) U.S. Grade B** is the quality of Layer or Cluster Raisins with Seeds that have similar varietal characteristics; that have a reasonably good typical color; that have a good characteristic flavor; that are uniformly cured and show development characteristics of raisins prepared from reasonably well-matured grapes; that contain not more than 23 percent, by weight, of moisture; that not less than 30 percent, by weight, of the raisins exclusive of stems and branches, are 3-Crown size or larger; and that meet the additional requirements outlined in Table III of this subpart.
- (c) Substandard** is the quality of Layer or Cluster Raisins with Seeds that fail to meet the requirements of U.S. Grade B.

TABLE III
ALLOWANCES FOR DEFECTS IN LAYER OR CLUSTER RAISINS WITH SEEDS

Defects	U.S. Grade A	U.S. Grade B
	Maximum (percent by weight)	
Sugared	5	10
Discolored, damaged, or moldy	5	7
Provided these limits are not exceeded:		
Damaged	3	4
Moldy	2	3
Substandard Development and Undeveloped ...	2	5
Shattered (or loose) individual berries and small clusters of 2 or 3 berries	Practically free	Reasonably free
	Appearance or edibility of product:	
Slightly discolored or damaged by fermentation or any other defect not described above	May not be affected	May not be more than slightly affected
Grit, sand or silt	None of any consequence may be present that affects the appearance or edibility of the product.	

§52.1854 Sizes of Sultana Raisins.

Size designations are not applicable to Sultana Raisins.

§52.1855 Grades of Sultana Raisins.

- (a) U.S. Grade A** is the quality of Sultana Raisins that have similar varietal characteristics; that have a good typical color; that have a good characteristic flavor; that show development characteristics of raisins prepared from well-matured grapes; with not less than 80 percent, by weight, of raisins that are well-matured or reasonably well matured; and that contain not more than 18 percent, by weight, of moisture, and that meet the additional requirements outlined in Table IV of this subpart.
- (b) U.S. Grade B** is the quality of Sultana Raisins that have similar varietal characteristics; that have a reasonably good typical color; that have a good characteristic flavor; that show development characteristics of raisins prepared from reasonably well-matured grapes; with not less than 70 percent, by weight, of raisins that are well-matured or reasonably well matured; and that contain not more than 18 percent, by weight, of moisture, and that meet the additional requirements as outlined in Table IV of this subpart.
- (c) U.S. Grade C** is the quality of Sultana Raisins that have similar varietal characteristics; that have a fairly good typical color; that have a fairly good flavor; that show development characteristics of raisins prepared from fairly well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the additional requirements as outlined in Table IV of this subpart.
- (d) Substandard** is the quality of Sultana Raisins that fail to meet the requirements of U.S. Grade C.

**TABLE IV
ALLOWANCES FOR DEFECTS IN SULTANA RAISINS**

Defects	U.S. Grade A	U.S. Grade B	U.S. Grade C
	Maximum count (per 32 ounces)		
Pieces of stem	1	2	3
	Maximum count (per 16 ounces)		
Capstems	25	45	65
	Maximum (percent by weight)		
Sugared	5	10	15
Discolored, damaged, or moldy raisins	4	6	9
Provided these limits are not exceeded:			
Damaged	2	3	5
Moldy	2	3	4
Substandard Development and Undeveloped ...	2	5	8
	Appearance or edibility of product:		
Slightly discolored or damaged by fermentation or any other defect not described above	May not be affected.	May not be more than slightly affected.	May not be more than materially affected.
Grit, sand or silt	None of any consequence may be present that affects the appearance or edibility of the product.		Not more than a trace may be present that affects the appearance or edibility of the product.

§52.1856 Sizes of Zante Currant Raisins.

Size designations are not applicable to Zante Currant Raisins.

§52.1857 Grades of Zante Currant Raisins.

- (a) U.S. Grade A** is the quality of Zante Currant Raisins that have similar varietal characteristics; that have a good typical color; that have a good characteristic flavor; that show development characteristics of raisins prepared from well-matured grapes; that have not less than 75 percent, by weight, of raisins that are well-matured or reasonably well-matured; that contain not more than 20 percent, by weight, of moisture; and meet the additional requirements as outlined in Table V of this subpart.
- (b) U.S. Grade B** is the quality of Zante Currant Raisins that have similar varietal characteristics; that have a reasonably good typical color; that have a good characteristic flavor; that have development characteristics of raisins prepared from reasonably well-matured and/or fairly well matured grapes; that contain not more than 20 percent, by weight, of moisture; and meet the additional requirements as outlined in Table V of this subpart.
- (c) Substandard** is the quality of Zante Currant Raisins that fail to meet the requirements of U.S. Grade B.

TABLE V
ALLOWANCES FOR DEFECTS IN ZANTE CURRANT RAISINS

Defects	U.S. Grade A	U.S. Grade B
	Maximum count	
Pieces of stem	1 per 24 ounces	1 per 16 ounces
Seeds (in Seeded Style)	12 per 16 ounces	15 per 16 ounces
	Maximum (percent by weight)	
Capstems - Zantes with capstems and loose capstems (include one Zante with each loose capstem)	1-1/2	2
Sugared	5	10
Discolored, damaged, or moldy raisins	5	7
Provided these limits are not exceeded:		
Damaged	2	3
Moldy	3	4
Substandard Development and Undeveloped ...	2	5
	Appearance or edibility of product:	
Slightly discolored or damaged by fermentation or any other defect not described above	May not be affected.	May not be more than slightly affected.
Grit, sand or silt	None of any consequence may be present that affects the appearance or edibility of the product.	

§52.1858 Grades of mixed types of varieties of raisins.

The grade of a lot of mixed types of processed raisins shall be the lower (or lowest) grade of any varietal type in the mixture based on the respective requirements for each type, except for moisture, in accordance with this subpart. Mixed types of processed raisins of U.S. Grade A, U.S. Grade B, or U.S. Grade C may contain not more than 18 percent, by weight, of moisture. Mixed types of processed raisins that as a mixture exceed 18 percent, by weight, of moisture are **Substandard**.

Effective date. These standards as amended, shall become effective December 1, 1978.

Dated: November 1, 1978

Sydney J. Butler
Acting Administrator
Food Safety and Quality Service