



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Processed
Products
Branch**

United States Standards for Grades of Dehydrated (Low Moisture) Prunes

Effective date June 13, 1960

This is the first issue of the United States Standards for Grades of Dehydrated, Low-Moisture Prunes published in the **FEDERAL REGISTER** of April 28, 1960 (25 FR 3705) to become effective June 13, 1960.

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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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.

§52.3231 Product description.

Dehydrated, low-moisture prunes, hereinafter referred to as "low-moisture prunes", are prepared from clean and sound fresh prune-plums or clean and sound previously dried prunes; are pitted and otherwise prepared into various sizes and shapes; are prepared to assure a clean, sound, wholesome product; are processed by dehydration whereby practically all of the moisture is removed to produce a very dry texture; and are packaged (including kind of container and proper closure) to assure retention of the low-moisture characteristics of the product.

§52.3232 Moisture of low-moisture prunes.

The moisture content of the finished product shall be not more than the following for the respective styles:

Nugget-type	-	2.5 percent.
Pieces	-	2.5 percent.
Whole Pitted	-	4.0 percent.

§52.3233 Styles of low-moisture prunes.

- (a) **Nugget-type** is especially processed to produce foam-textured units of irregular shapes of such size that practically all of the units will pass through 0.625 inch (5/8-inch) square openings.
- (b) **Pieces** consist of irregularly shaped cut or chopped pieces of such size that practically all of the units will pass through 0.625 inch (5/8-inch) square openings.
- (c) **Whole pitted** dehydrated prunes are substantially whole units except for mechanical marking or damage from pitting.

§52.3234 Grades of low-moisture prunes.

- (a) **U.S. Grade A or U.S. Fancy** low-moisture prunes is the quality of low-moisture prunes that possess a normal flavor and odor, that possess a good color, that are reasonably uniform in size and count for the applicable style, that are practically free from defects, that possess a good texture and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 85 points: **Provided**, That the low-moisture prunes may possess a reasonably good texture, if the total score is not less than 85 points.

- (b) **U.S. Grade B or U.S. Choice** low-moisture prunes is the quality of low-moisture prunes that possess a normal flavor and odor, that possess a reasonably good color, that are fairly uniform in size and count for the applicable style, that are reasonably free from defects, that possess a reasonably good texture; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 70 points.
- (c) **Substandard** low-moisture prunes is the quality of low-moisture prunes that fail to meet the requirements of U.S. Grade B.

§52.3235 Ascertaining the grade.

In addition to considering other requirements outlined in the standards, the following quality factors are evaluated:

- (a) Factors not rated by score points.
 - (1) Flavor and odor.
- (b) Factors rated by score points.
 - (1) 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 such factors are:

Factors	Points
Color	20
Uniformity of size and count	20
Absence of defects	40
Texture	<u>20</u>
Total Score	100

- (2) The factors of flavor and odor, color, certain defects as may be applicable, and texture are ascertained upon the low-moisture prunes and the cooked product as specified in this subpart.

- (c) **Normal flavor and odor** means that the low-moisture prunes and the cooked product possess a characteristic flavor and odor that is free from objectionable flavors (including definite scorched flavor) or objectionable odors of any kind.

§52.3236 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, 17 to 20 points means 17, 18, 19, or 20 points).

§52.3237 Color.

- (a) **"A" classification.** Low-moisture prunes that possess a good color may be given a score of 17 to 20 points. **Good color** means that in the style of **nugget-type** the color may range from characteristic light chocolate brown to a darker brown but the over-all color impression is reasonably uniform; and that in the style of "pieces" or "whole pitted", the units may vary from characteristic blue-black typical of the exterior skin color, and chocolate brown to darker brown typical of the interior color, of low-moisture prunes; and that such characteristic color of any style, after cooking, is a reasonably rich color typical of cooked low-moisture prunes that have been properly prepared and processed.
- (b) **"B" classification.** If the low-moisture prunes possess a reasonably good color, a score of 14 to 16 points may be given. Low-moisture prunes 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 in the style **nugget-type** the color may vary noticeably in shades of brown color; and that in the style of **pieces** or **whole pitted**, the units may possess a variable dull blue-black to very dark brown color; and that in any style, after cooking, the color may be dull but is typical of cooked low-moisture prunes that have been properly prepared and processed and is not off-color for any reason.
- (c) **"Sstd" classification.** Low-moisture prunes 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).

§52.3238 Uniformity of size and count.

- (a) **"A" classification.** Low-moisture prunes that are reasonably uniform in size and count may be given a score of 17 to 20 points. **Reasonably uniform in size and count** has the following meanings for the applicable style:
- (1) **Nugget-type; pieces.** Practically all of the units are of such size and shape as to pass through 0.625 (5/8-inch) square openings and not more than 10 percent, by weight, of the low-moisture prunes may pass through meshes of a U.S. Standard No. 8 sieve (0.0937-inch, \pm 3 percent, square openings).
 - (2) **Whole pitted.** Not more than 3 percent, by weight, of the low-moisture prunes may consist of small pieces that past through meshes of a U.S. Standard No. 4 sieve (0.187-inch, \pm 3 percent, square openings); and the count of full-size units (after removal of small pieces and partial or inseparable units) is not more than 133 per pound; and the uniformity of count is such that in a sample of 100 ounces of full-size units:
 - (i) For prunes that average 83 prunes or less per pound, the count per pound of 10 ounces of the smallest prunes does not vary from the count per pound of 10 ounces of the largest prunes by more than 39 points; or
 - (ii) For prunes that average 84 prunes or more per pound, the count per pound of 10 ounces of the smallest prunes does not vary from the count per pound of 10 ounces of the largest prunes by more than 70 points.
- (b) **"B" classification.** If the low-moisture prunes are fairly uniform in size and count, a score of 14 to 16 points may be given. Dehydrated prunes 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). **Fairly uniform in size and count** has the following meanings for the applicable style:
- (1) **Nugget-type; pieces.** Practically all of the units are of such size and shape as to pass through 0.625 (5/8-inch) square openings and not more than 25 percent, by weight, of the low moisture prunes may pass through meshes of a U.S. Standard No. 8 sieve (0.0937-inch, \pm 3 percent, square openings).

(2) **Whole pitted.** Not more than 5 percent, by count, of the low-moisture prunes may consist of small pieces that pass through meshes of a U.S. Standard No. 4 sieve (0.187-inch, \pm 3 percent, square openings); and the count of full size units (after removal of small pieces and partial or inseparable units) is not more than 140 per pound; and the uniformity of count is such that in a sample of 100 ounces of full-size units:

(i) For prunes that average 83 prunes or less per pound, the count per pound of 10 ounces of the smallest prunes does not vary from the count per pound of 10 ounces of the largest prunes by more than 39 points; or

(ii) For prunes that average 84 prunes or more per pound, the count per pound of 10 ounces of the smallest prunes does not vary from the count per pound of 10 ounces of the largest prunes by more than 70 points.

(c) **"Sstd" classification.** Low moisture prunes 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).

§52.3239 Absence of defects.

(a) **General.** The factor of absence of defects refers to the degree of freedom from damaged and seriously damaged units, from partial units and seriously damaged units, from partial units and inseparable units in whole pitted style, from units affected by pit material in whole pitted style, and from other defects or injury that affect the appearance or eating quality of the units or product.

(b) **Definitions.**

(1) **Damaged units** are units that possess defects which materially affect the appearance of the low-moisture prunes and are of such nature that they may or may not disappear upon cooking. Units that are mechanically damaged by pitting, or other preparation including smaller perforations, are not considered **damaged units**. **Damaged units** include, but are not limited to, units that possess scars, blemishes, insect injury, or other similar abnormality.

- (2) **Seriously damaged units** include units that are excessively darkened due to scorching or burning, that possess serious scars, serious blemishes, serious insect injury, or other serious abnormality, or which in any other way possess defects that seriously affect the appearance of the low-moisture prunes and that the damage is of such nature that it does not disappear upon cooking.
 - (3) **Partial units** in whole pitted style consist of portions of whole pitted low-moisture prunes which are less than three-fourths of an apparent whole pitted prune.
 - (4) **Inseparable units** in whole pitted style consist of five or more partial units and/or whole pitted prunes which are so stuck together that they may not be readily separated in the low-moisture prunes.
 - (5) **Slightly affected by pieces of pit** in whole pitted style means units that are affected by not more than two fragments of pit which individually are 1/4 inch or less in their longest dimension.
 - (6) **Seriously affected by pieces of pit** in whole pitted style means:
 - (i) Units that have more than two fragments of pit which individually are smaller than 1/4 inch or less in their longest dimension; and
 - (ii) Units that have a piece or pieces of pit, any of which are longer than 1/4 inch in their longest dimension.
- (c) **"A" classification.** Low-moisture prunes that are practically free from defects may be given a score of 34 to 40 points. **Practically free from defects** means that the low-moisture prunes in any style are practically free from any defects that affect more than slightly the appearance or eating quality either in the low-moisture prunes or after cooking; and in whole pitted style there may be present not more than the following:
- (1) **Whole pitted.**
 - (i) A total of 5 percent, by weight, of the low-moisture prunes may be damaged: **Provided**, That not more than 2 percent, by weight, of the low-moisture prunes may be seriously damaged;

- (ii) 7-1/2 percent, by weight, of the low-moisture prunes may be partial and inseparable units; and
- (iii) A total of 5 percent, by weight, of the low-moisture prunes may be slightly and seriously affected by pieces of pit: **Provided**, That not more than 3 percent, by weight, may be affected by fragments which individually are 1/8 inch or more but not longer than 1/4 inch in their longest dimension: **and provided further**, That not more than 1 percent, by weight, may be seriously affected by pieces of pit.

(d) **"B" classification.** If the low-moisture prunes are reasonably free from defects, a score of 28 to 33 points may be given. Low-moisture prunes 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 the low-moisture prunes in any style are reasonably free from any defects that affect materially the appearance or eating quality either in the low-moisture prunes or after cooking; and in whole pitted style there may be present not more than the following:

(1) **Whole pitted.**

- (i) A total of 10 percent, by weight, of the low-moisture prunes may be damaged: **Provided**, That not more than 4 percent, by weight, of the low-moisture prunes may be seriously damaged;
- (ii) 15 percent, by weight, of the low-moisture prunes may be partial and inseparable units; and
- (iii) A total of 8 percent, by weight, of the low-moisture prunes may be slightly and seriously affected by pieces of pit: **Provided**, That not more than 5 percent, by weight, may be affected by fragments which individually are 1/8 inch or more but no longer than 1/4 inch in their longest dimension: **and provided further**, That not more than 2 percent, by weight, may be seriously affected by pieces of pit.

(e) **"Sstd" classification.** Low-moisture prunes that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 27 points and shall not be graded above **Substandard**, regardless of the total score for the product (this is a limiting rule).

§52.3240 **Texture.**

- (a) **"A" Classification.** Low-moisture prunes that possess a good texture may be given a score of 17 to 20 points. **Good texture** means with respect to the low-moisture prunes that the units may vary in texture from partially pliable to brittle but are otherwise reasonably uniform in texture; and, after cooking in accordance with the method outlined in this subpart, meet the following requirements for the applicable style:
- (1) **Nugget-type.** The cooked mass has a reasonably uniform texture and finish that is coarse or grainy without practically any hard particles.
 - (2) **Pieces.** The cooked product is practically free from hard, firm, or tough units and there is no more than moderate disintegration except for small pieces that may have been present.
 - (3) **Whole pitted.** The cooked product is practically free from hard or tough units and substantially retains the semblance of whole pitted prunes except for small pieces that may have been present.
- (b) **"B" classification.** If the low moisture prunes possess a reasonably good texture, a score of 14 to 16 points may be given. **Reasonably good texture** means with respect to the low moisture prunes that the units may vary in texture from partially pliable to brittle and may lack uniformity of texture; and, after cooking in accordance with the method outlined in this subpart, meet the following requirements for the applicable style:
- (1) **Nugget-type.** The cooked mass has a fairly uniform texture and finish that may range from fine and grainy to coarse and grainy; and hard particles may be noticeable but not objectionable.
 - (2) **Pieces.** The cooked product is fairly free from hard, firm, or tough units and may disintegrate generally into a coarse, sauce-like consistency.
 - (3) **Whole pitted.** The cooked product is fairly free from hard or tough units and may consist of ragged or broken larger pieces and whole pitted units intermingled with slight amount of mushiness from small pieces which may have been present.
- (c) **"Sstd" classification.** Low-moisture prunes 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).

§52.3241 Explanations of methods and analyses.

- (a) Moisture method.** **Moisture** in low-moisture prunes is determined in accordance with the official method applicable to dried fruits as outlined in the "**Official Methods of Analysis of the Association of Official Analytical Chemists**" or in accordance with methods which produce equivalent results.
- (b) Cooking procedure.**

 - (1) General.** The cooking procedures that follow are not intended to be a recipe for purposes of food preparation but are for the purposes of ascertaining compliance with requirements for applicable quality factors as outlined in this subpart.
 - (2) Method.** Add 50 grams of low-moisture prunes to 400 mL of water in a pan of such size as to cover the prunes, cover pan, bring to a boil, and simmer with only gentle and occasional stirring for the time specified for the respective styles:

 - (i)** Nugget-type; pieces. Simmer for 15 minutes.
 - (ii)** Whole pitted. Simmer for 20 minutes.
- (c) Screening method.** The technique for ascertaining compliance with the requirements for particles that pass through U.S. Standard No. 4 and No. 8 sieves is as follows:

 - (1) Nugget-type; pieces.**

 - (i)** Place a 100-gram representative sample of low-moisture prunes on a U.S. Standard No. 8, 8-inch diameter, full-height sieve to which a bottom pan has been attached;
 - (ii)** Place the assembly on a smooth level surface and with a steady, fairly rapid sieving motion, move the assembly approximately 20 inches in a straight line and return to its original position, repeating the movement 20 times;
 - (iii)** Weigh the fine material sifted through to the bottom pan and, on the basis of the original sample, calculate the percentage which passed through the No. 8 sieve.

(2) Whole pitted.

- (i)** From a 100-gram representative sample of low-moisture whole pitted prunes, remove all definitely whole pitted prunes, large pieces thereof, or inseparable units, and place the remaining smaller pieces on a U.S. Standard No. 4, 8-inch diameter, full-height sieve to which a bottom pan has been attached;
- (ii)** Place the assembly on a smooth level surface and with a steady, fairly rapid sieving motion, move the assembly approximately 20 inches in a straight line and return to its original position, repeating the movement 10 times;
- (iii)** Weigh the fine material sifted through to the bottom pan and, on the basis of the original sample, calculate the percentage which passed through the No. 4 sieve.

§52.3242 Ascertaining the grade of a lot.

The grade of a lot of low-moisture prunes covered by these standards is determined by the procedure 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)

§52.3243 Score sheet for low-moisture prunes.

Size and kind of container		
Container mark or identification		
Label		
Net weight		
Moisture content (percent)		
Style		
Count (whole pitted) per lb		
Factors		Score points
Color	20	"A" 17 - 20 "B" 14 - 16 <u>1/</u> "Sstd" 0 - 13 <u>1/</u>
Uniformity of size	20	"A" 17 - 20 "B" 14 - 16 "Sstd" 0 - 13 <u>1/</u>
Absence of defects	40	"A" 17 - 20 "C" 28 - 33 <u>1/</u> "Sstd" 0 - 27 <u>1/</u>
Texture	<u>20</u>	"A" 17 - 20 "C" 14 - 16 "Sstd" 0 - 13 <u>1/</u>
Total score	100	
Flavor and odor () Normal () Off		
Grade		

1/ Indicates limiting rule.

The United States Standards for Grades of Dehydrated, Low-moisture Prunes (which is the first issue) contained in this subpart shall become effective 45 days after the date of publication hereof in the Federal Register.

Dated: April 25, 1960.

/s/
Roy W. Lennartson,
Deputy Administrator,
Marketing Services.