



**United States
Department of
Agriculture**

**Agricultural
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Service**

**Fruit and
Vegetable
Division**

**Processed
Products
Branch**

United States Standards for Grades of Canned Peas

Effective date November 17, 1994

This is the seventh issue of the United States Standards for Grades of Canned Peas published in the **FEDERAL REGISTER** of October 18, 1994 (59 FR 52630) to become effective November 17, 1994. This issue supersedes the sixth issue, as amended, which has been in effect since May 22, 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
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 Canned Peas

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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.

§52.2281 Product description.

Canned peas means the canned product prepared from clean, sound, shelled, succulent peas as such product is defined in the Standards of Identity for Canned Peas (21 CFR 155.170) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§52.2282 Types of canned peas.

- (a) **Early peas** means canned succulent peas of Alaska or other smooth skin varieties.
- (b) **Sweet peas** means canned succulent peas of sweet, wrinkled varieties.

§52.2283 Definitions of terms.

- (a) **Acceptable quality level (AQL)** means the maximum percent of defective units or the maximum number of defects per hundred units of product that, for the purpose of acceptance sampling, can be considered satisfactory as a process average.
- (b) **Appearance.**
 - (1) **Good appearance** means that the peas are practically uniform in color and are reasonably free of insignificant blemishes.
 - (2) **Reasonably good appearance** means that the peas are fairly uniform in color and fairly free of insignificant blemishes.
- (c) **Blemishes.**
 - (1) **Blemished** means a unit that is spotted or otherwise discolored (other than blond), such as vivid-green or brown, to the extent that its appearance or eating quality is materially affected.
 - (2) **Seriously blemished** means a unit that is seriously discolored or spotted, such as a dark discolored pea, to the extent that the appearance or eating quality is seriously affected.
- (d) **Blond** means a unit that is cream-colored or yellow in color and essentially devoid of green.
- (e) **Defect** means any nonconformance of a unit(s) of product from a specified requirement of a single quality characteristic.

- (f) **Extraneous vegetable material (EVM)** means any harmless vegetable material, to include:
- (1) **Flat material** common to the pea plant such as leaves and pods, and flat vegetable material from other plants;
 - (2) **Cylindrical material** common to the pea plant such as stems or pieces of vines, and cylindrical vegetable material from other plants; and
 - (3) **Spherical material** not common to the pea plant such as thistle buds, berries and pieces of berries.
- (g) **Flavor and odor.**
- (1) **Good flavor and odor** means the product has a characteristic flavor and odor and is free from objectionable flavors and odors.
 - (2) **Reasonably good flavor and odor** means that the product may be lacking in characteristic flavor and odor but is free from objectionable flavors and odors.
- (h) **Liquor.**
- (1) **Good liquor** means the color of liquor is typical, may have a slight cloudiness or a tint of green, only a slight to moderate amount of suspended material or sediment may be present, and the liquor is not viscous.
 - (2) **Reasonably good liquor** means the liquor may be cloudy or slightly green, may have a pronounced accumulation of sediment, may be dull but not off color, and may be viscous but not so viscous that the liquor will not separate from the peas.
- (i) **Piece of pea (broken pea)** means:
- (1) A pea from which a cotyledon or a large portion thereof has become separated;
 - (2) Two detached whole cotyledons;
 - (3) Pieces of detached cotyledons aggregating the equivalent of an average size cotyledon; and

- (4) A whole detached skin or portions of detached skin aggregating the equivalent of an average size whole skin.
- (j) **Sample unit** means the amount of product specified to be used for grading. For appearance, flavor and odor, liquor, and varietal characteristics, a sample unit is the entire contents of the container. For grading EVM, a sample unit is each 1700 g (60.0 oz) drained product; for blemished (spotted), seriously blemished, and broken peas (pieces), a sample unit is each 400 peas. For grading maturity, a sample unit is each 50 peas or more in accordance with Table III in §52.2288.
- (k) **Tolerance** means the percentage of defective units allowed for each quality factor.
- (l) **Unit** means each whole pea.

§52.2284 Fill of container.

The standard for fill of container for canned peas is not incorporated in the grade of the finished product since fill is not a factor of quality for the purposes of these grades. Except in the case of vacuum pack, canned peas shall be considered standard in fill if they meet the standard of fill promulgated under the Federal Food, Drug, and Cosmetic Act (21 CFR 155.170). Canned peas that do not meet this requirement are "Below Standard in Fill."

§52.2285 Sizes of peas.

Except for the factor of defects in determining pieces of peas, the sizes of peas are not considered in ascertaining the quality of the product for the purposes of these grades. The size of a pea is determined on the basis of the diameter of the circular opening(s) through which the pea will pass or will not pass without force or pressure. The size designations and diameters applicable to canned peas are shown in Table I of this section.

TABLE I
SIZES OF CANNED PEAS

Size designation	Diameter of circular openings in inches (millimeters)	
	Will not pass through	Will pass through
Size 1		9/32 (7.1)
Size 2	9/32 (7.1)	10/32 (7.9)
Size 3	10/32 (7.9)	11/32 (8.7)
Size 4	11/32 (8.7)	12/32 (9.5)
Size 5	12/32 (9.5)	13/32 (10.3)
Size 6	13/32 (10.3)	14/32 (11.1)
Size 7	14/32 (11.1)	

§52.2286 Grades.

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

- (1)** Meets the following prerequisites in Table II of Section 52.2288 in which the canned peas:
 - (i)** Have similar varietal characteristics;
 - (ii)** Have a good appearance;
 - (iii)** Have not more than one (1) percent, by count, blond peas;
 - (iv)** Have a good liquor; and
 - (v)** Have a good flavor and odor.
- (2)** Is within the limits for defects as specified in Tables III, IV, and V of Section 52.2288, as applicable.

- (b) U.S. Grade B** is the quality of canned peas that:
- (1)** Meets the following prerequisites in Table II of Section 52.2288 in which the canned peas:
 - (i)** Have similar varietal characteristics;
 - (ii)** Have a good appearance;
 - (iii)** Have not more than one and one-half (1.5) percent, by count, blond peas;
 - (iv)** Have a good liquor; and
 - (v)** Have a good flavor and odor.
 - (2)** Is within the limits for defects as specified in Tables III, IV, and V of Section 52.2288, as applicable.
- (c) U.S. Grade C** is the quality of canned peas that:
- (1)** Meets the following prerequisites in Table II of Section 52.2288 in which the canned peas:
 - (i)** Have similar varietal characteristics;
 - (ii)** Have a reasonably good appearance;
 - (iii)** Have not more than two (2) percent, by count, blond peas;
 - (iv)** Have a reasonably good liquor; and
 - (v)** Have reasonably good flavor and odor.
 - (2)** Is within the limits for defects as specified in Tables III, IV, and V of Section 52.2288, as applicable.
- (d) Substandard** is the quality of canned peas that fail to meet the requirements of U.S. Grade C.

§52.2287 Factors of quality.

The grade of canned peas is based on requirements for the following quality factors:

(a) Prerequisite quality factors:

- (1)** Varietal characteristics;
- (2)** Appearance;
- (3)** Blond peas;
- (4)** Liquor; and
- (5)** Flavor and odor.

(b) Classified quality factors:

- (1)** Maturity;
- (2)** Extraneous vegetable material (EVM);
- (3)** Blemished, spotted or discolored peas;
- (4)** Seriously blemished or seriously discolored peas; and
- (5)** Pieces of peas (broken).

§52.2288 Prerequisite requirements and allowances for defects.

**TABLE II
PREREQUISITES REQUIREMENTS**

FACTORS	GRADE A	GRADE B	GRADE C
Varietal characteristics	Similar	Similar	Similar
Appearance	Good	Good	Reasonably good
Blond peas	Not more than 1% by count	Not more than 1.5% by count	Not more than 2% by count
Liquor	Good	Good	Reasonably good
Flavor and odor	Good	Good	Reasonably good

TABLE III
CANNED PEAS

LOT ACCEPTANCE NUMBERS (SINKERS) FOR BRINE FLOATATION

Sample Units x Sample Unit Size				1x50 1/	3x5 0	6x5 0	13x5 0	21x5 0	29x5 0
Units of Product				50	150	300	650	1050	1450
TO L	AQL 2/	Type of Peas	% Salt Sol.						
Grade A				Acceptance Numbers					
12. 0	10.1	Sweet	11.0	8	21	39	78	122	165
2.0	1.3		13.0	2	4	7	13	20	26
20. 0	17.6	Early	11.0	13	34	63	130	205	279
2.0	1.3		13.5	2	4	7	13	20	26
Grade B									
15. 0	13.0	Sweet	13.0	10	26	48	98	154	209
4.0	2.9		15.0	3	8	13	26	39	53
30. 0	27.2	Early	13.5	18	50	94	195	309	422
8.0	6.4		15.0	6	15	26	52	80	108
Grade C									
10. 0	8.2	Sweet	15.0	7	18	33	65	101	137
10. 0	8.2	Early	16.0	7	18	33	65	101	137

1/ For unofficial samples.

2/ AQL calculated from tolerance (TOL) at 650.

TABLE IV
CANNED PEAS

ACCEPTANCE NUMBERS FOR EXTRANEEOUS VEGETABLE MATERIAL (EVM) 1/

Description of Material	EVM Unit Designation	PER 1700 g (60 oz)		
		Grade A	Grade B	Grade C
Flat; or	Each 1.5 cm ² (0.25 in ²); or	1	2	--
Cylindrical; or	Each 13 mm (each 0.50 in); or			
Spherical	Each piece			
Flat, cylindrical, and spherical EVM	Total weight in grams	--	--	9

1/ For the lot average of each 1700 g (60 oz) of drained product. For example, a lot containing 10,200 g (360 oz) of drained product may include no more than: 6 EVM units for Grade A; 12 EVM units for Grade B; or 54 g (1.9 oz) total EVM for Grade C.

TABLE V
CANNED PEAS

LOT ACCEPTANCE NUMBERS FOR DEFECTS, OTHER THAN EVM

Sample Units x Sample Unit Size			1x400 1/	3x400	6x400	13x400	21x400	29x400
Units of Product			400	1200	2400	5200	8400	11600
TOL	AQL 2/	Quality Factors	Acceptance Numbers					
Grade A								
1.0	0.80	Blemished peas	6	15	26	52	80	108
0.50	0.37	Seriously blemished peas	3	8	14	26	40	53
5.0	4.5	Pieces of peas (broken) larger than No. 2 sieve size	25	66	125	259	410	560
7.0	6.4	Pieces of peas (broken) No. 1 and No. 2	34	91	174	363	576	787
Grade B								
3.0	2.6	Blemished peas	16	40	75	154	242	330
0.75	0.58	Seriously blemished peas	5	11	20	39	60	81
10.0	9.3	Pieces of peas (broken), all sieve sizes	47	129	248	520	827	1133
Grade C								
5.0	4.5	Blemished peas	25	66	125	259	410	560
1.0	0.80	Seriously blemished peas	6	15	26	52	80	108
12.5	11.8	Pieces of peas (broken) larger than No. 2 sieve size	58	160	309	652	1040	1426
12.0	11.3	Pieces of peas (broken) No. 1 and No. 2 sieve sizes	53	153	296	625	997	1367

- 1/ For unofficial samples.
2/ AQL calculated from tolerance (TOL) at 5200.

§52.2289 Sample size.

The sample size used to determine whether the requirements of these standards are met 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 through 52.83).

§52.2290 Quality requirements.

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

- (a) The prerequisite requirements specified in §52.2286 are met; and
- (b) None of the allowances for the individual quality factors specified in Tables III, IV, and V, of Section 52.2288 as applicable are exceeded.

§52.2291 Single sample unit.

Each unofficial sample unit submitted for quality evaluation will be treated individually and is considered as meeting the requirements for quality if:

- (a) The prerequisite requirements specified in §52.2286 are met;
- (b) The acceptable quality levels and acceptance numbers in Tables III, IV, and V, of Section 52.2288 as applicable for the sieve size, are not exceeded.

Dated: October 11, 1994

/s/ Lon Hatamiya, _____
Administrator