



United States
Department of
Agriculture

Fresh Peas

Agricultural
Marketing
Service

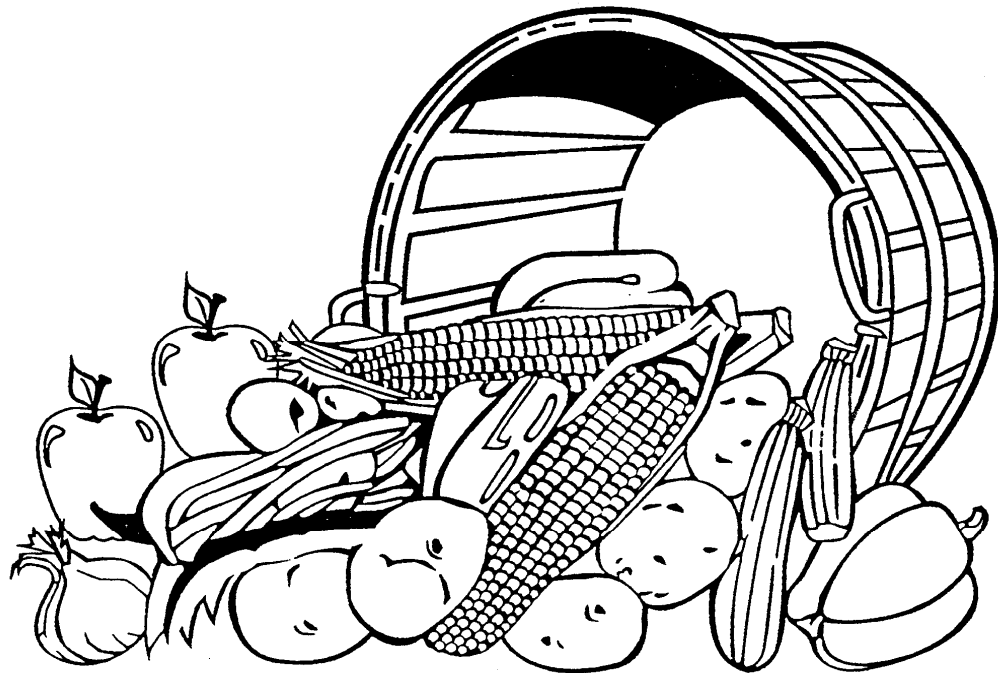
Market Inspection Instructions

Fruit and
Vegetable
Programs

Fresh Products
Branch

March 2004

Previously
January 1988



Market Inspection Instructions for Fresh Peas

These inspection instructions are specifically developed by the Fresh Products Branch to assist officially licensed inspectors in the interpretation and application of the U.S. Standards for Grades of Fresh Peas, Section 51.1375.

These instructions do not establish any substantial rule not legally authorized by the official grade standards. This publication supersedes any previously issued inspection instructions.

Refer to the General Inspection Instructions for additional information pertaining to date, inspection point, carrier, condition of carrier, lading, etc. that is not covered in this handbook. Reference to "General Inspection Instructions" in all Fresh Products Branch publications refers to any one or all of the following - General Shipping Point Inspection Instructions, General Market Inspection Instructions, or Fresh Fruit and Vegetable Certificate Writing Handbooks.

Any portion of these instructions beginning with the section number §51.--- and followed by **bold** print are sections or portions of sections copied directly from U.S. standards. The U.S. Standards for Grades of Fresh Peas are printed in the appendix of this handbook. All U.S. standards are available on the Internet under the USDA homepage.

March 2004

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Reformatted October 2002, previously January 1988.

Factors noted with **(Q)** are considered quality only. Factors noted with **(C)** are considered condition at market. Factors noted with **(Q or C)** may be quality or condition depending on the circumstances. Factors not designated do not pertain to either category.

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GENERAL

There are many varieties of fresh peas, which are classified by such characteristics as tall and dwarf, early and late, small and large pod, and edible pod or sugar snap type peas.

The U.S. Standards for Grades of Fresh Peas apply only to peas that develop pods with peas (seeds) that meet the requirements in the standards for fairly well filled. This means that more than one-half of the pod shall contain peas which are fairly well developed. Peas known as Sit Dow, French, Snow, China, and similar varieties do not have fairly well developed peas in a pod. These varieties cannot be graded using the U.S. Standards for Grades of Fresh Peas and are grown for their edible pods. However, there are varieties like the Sugar Snap Pea, which are also grown for their edible pods and can develop fairly well filled pods. If these varieties meet those requirements they may be graded using the U.S. Standards for Grades of Fresh Peas.

REPRESENTATIVE SAMPLING

The importance of obtaining representative samples cannot be over emphasized. Accurate certification is possible only if the samples examined are truly representative of the entire lot or accessible portion. All portions of a lot or load should receive the same attention in sampling regardless of the difficulty involved in reaching all layers or parts of a lot or load. Anytime the entire lot requested is not accessible for sampling, the inspection and certificate must be restricted to the accessible portion.

Size of Sample

The tolerances in the U.S. Standards for Grades of Fresh Peas are determined on the basis of weight.

All weights shall be recorded in ounces. **At least 50 Ounces (3.125 lbs.) shall be examined from each sample container.** Whenever the container tolerance is exceeded or the lot tolerance is exceeded, the sample size of at least one sample (that has exceeded a tolerance) shall be doubled (100 Ounces / 6.25 lbs). Refer to General Inspection Instructions.

Samples should be taken from various locations within the container being examined. Peas are generally tightly packed into wire bound crates and have a tendency to settle during shipment. Therefore, it is suggested that the contents be dumped out or into another container so that a representative sample may be obtained from any part of the sample container. If it is not practical to empty the contents, samples shall be taken extending from the top to the bottom of at least one sample. In

the remaining samples, peas should be taken from the top to as near the bottom of the container as possible.

Examination of peas (seeds)

In order to determine the quality and condition of the individual peas (seeds), the inspector shall open the pods and examine the peas. If defects are found, the contents of the entire pod shall be scored. The percentage of defects affecting the pea (seed) shall be determined by removing the peas from the pod during the process of inspection. As the inspector examines the pods, he/she should also open a sufficient number of pods to examine the peas (seeds). When defects are found affecting the peas, the weight of the entire pod and peas shall be scored.

Number of Samples

As a general rule a minimum of 1% of the lot must be examined. For lots of less than 300 packages a minimum of 3 samples must be examined. It is the inspector's responsibility to examine additional representative samples when the quality, condition, or size in samples is decidedly different to ensure an accurate description of the lot.

TOLERANCES AND APPLICATION OF TOLERANCES

§51.1378 Tolerances.

In order to allow for variations incident to proper grading and handling, not more than 10 percent, by weight, of the pods of peas in any container may be below the requirements of the grade, but not more than one-half of this tolerance, or 5 percent, shall be allowed for defects causing serious damage, and not more than one-tenth of this tolerance, or 1 percent, shall be allowed for soft decay. When peas are specified as "U.S. No. 1 Green Calyxes" or "U.S. Fancy" no part of any tolerance shall be allowed to reduce for the lot as a whole, or for the individual container the percentage of pods which are required to have calyxes of a fairly good green color.

	<u>U.S. Fancy</u>	<u>U.S. No. 1</u>
Total Defects		
A. Damage	10%	10%
B. Serious Damage (included in A)	5%	5%
C. Decay (included in A and B)	1%	1%

There are no specific tolerances for size in the standards. Refer to the size section on how to report.

Application of Tolerances

§51.1375 Introduction. (a) The tolerances for the standards are on a container basis. However, individual containers in any lot may vary from the specified tolerances as stated below, provided the averages for the entire lot, based on sample inspection, are within the tolerances specified.

(b) For a tolerance of 10 percent, individual containers in any lot may have not more than one and one-half times the tolerance.

(c) For a tolerance of less than 10 percent, individual containers in any lot may have not more than double the tolerance.

NOTESHEET AND CERTIFICATE

Entries on the notesheet and certificate must be kept in a legible and accurate manner. It is mandatory that all information which appears on the certificate be supported by information on the notesheet. It is the responsibility of the inspector to ensure that all information is properly recorded. Notations shall be recorded so that anyone familiar with inspection procedures can interpret them and write a certificate. Also remember that notesheets and certificates are prima facie evidence and must be able to withstand legal scrutiny.

Detailed instructions pertaining to date, inspection point, place of inspection, type of carrier, lading, etc., which are not covered by these instructions may be found in the General Inspection Instructions. Additional information and instructions may be given by your supervisor.

Product

The common name Fresh Peas shall be used to describe this commodity in the product heading. Type may be reported in the “Lot ID” section on market notesheet and certificate.

The standards require that a lot be of similar varietal characteristics. This means that the pods, as well as the peas shall be of the same general type, shape, color, and size. Sometimes peas are classified as large or small pod type. If pod type size is questioned do not attempt to categorize the peas using these names, merely show an accurate description of the length under the “Size” heading.

Number/Type of Containers

The number of containers shall always be reported. In the market and at shipping point locations for stationary lot certification, the inspector shall always verify the container count provided by the applicant for each lot and report it as the “inspector’s count.” If the number of containers available for inspection does not match the application it is the inspector’s responsibility to confirm that the amount presented for inspection constitutes the lot. If an accurate count cannot be determined the inspector may report the count at someone else’s authority. However, the reason for doing so must be reported on the notesheet (e.g., numerous pallets with mixed product.)

Fresh peas are usually packed and shipped in waxed fiberboard cartons and wire-bound crates.

Brands/Markings

The brand, variety, size, count, grade, weight, point of origin and other important information appearing on the container should be reported on the notesheet in the “Brands/Markings” section. Only the brand name and other key markings necessary to properly identify the lot for certification should appear in this section on the certificate.

Origin

The inspector should not make a positive statement on their own authority, but when container markings list the state or country of origin, it should be quoted in the appropriate space on the notesheet and the certificate. If origin is not marked, it is the inspectors responsibility to make an effort to obtain this information from the applicant. This policy is necessary because some firms may use one mark on the same product packed in several states. The inspector can certify only to the marks and has no means of verifying what state or country the peas were grown.

CONDITION OF PACK

There are no requirements in the standards as to pack, however, the following terms should be used on the certificate to describe pack.

Very Tight: means the pack is too tight, often causing bruising. Any bulge in the container should be described in inches and fractions thereof.

Level Full: means the pack is sufficiently filled to prevent movement of the peas in the container by being in firm contact with the top.

Fairly Well Filled: means the pack is not ideal and is between well filled and slack, being tight enough to prevent injury to product under normal handling conditions.

Slack: means the pack cannot be described with any of the preceding terms and should never be used without describing the slackness in inches or fractions thereof.

Pack Ice

Pack Ice is sometimes used in containers. When pack ice is used, the following terms should be used to report the amount of pack ice: “No pack ice,” “Small amount of pack ice,” or “Good amount of pack ice.”

TEMPERATURE OF PRODUCT

Inspectors would not normally determine or report temperatures at shipping point. However, due to the importance of the pulp temperature of fresh fruits and vegetables when in transit or at destination, it is essential that the inspector accurately determine and report the temperature or range in temperatures on each lot. Pulp temperature should be reported regardless of the location of the product, whether in the carrier, warehouse, or stacked on the platform. Remember to pre-cool the thermometer in order to obtain true readings. Report all temperatures to the nearest whole degree.

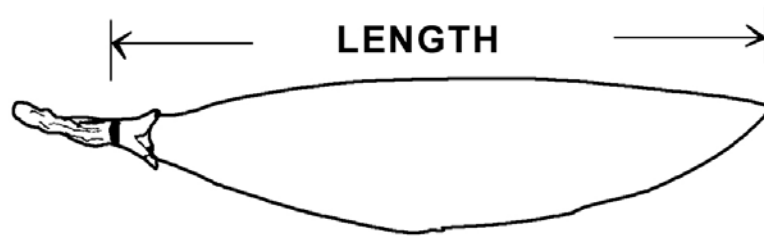
A minimum of three temperatures for each lot must be taken and recorded on the notesheet. More temperatures must be taken if the lot is abnormally cold, heated, or there is a specific request for temperature, and these must be reported in greater detail specifying location in lot or load.

SIZE

There are no size requirements in the standards. However, the grades require that the pods not be “excessively small” which means that the pod is so short that there is space for only two peas, which are at least fairly well developed. Pods that are in this category are quality defects.

Even though size is not a grade requirement, it may be reported at applicant's request. A specific size may also be specified by the applicant and can be shown, along with a statement under "Remarks," that the size was determined and reported at applicant's request.

Size should be reported as to the length of pods from the tip to the point where the pod meets the stem.



The length should be shown in inches and fractions thereof to the nearest one-quarter inch. Unless the size is nearly uniform, a "mostly" statement should follow the range in length.

Example:

Pods are 2-3/4 to 4-1/2, mostly 3-1/4 to 4 inches in length.

DEFECTS (QUALITY AND CONDITION)

Statements pertaining to freshness, maturity, shape, color, the amount and type of defects, and the amount of decay are shown under the appropriate headings.

Factors noted with **(Q)** are considered as **QUALITY** only (**Quality**, sometimes referred to as "**permanent**" defects), means defects which do not change during storage or shipment (shape, scars, etc.).

Factors noted with **(C)** shall be reported as **CONDITION** on market certificates. (**Condition defects** are defects which are subject to change during shipment or storage, including but not limited to bruising, discoloration, shriveling and decay.)

Those factors noted with **(Q or C)** may be considered as **QUALITY or CONDITION**, depending on the circumstances.

Bruising (C)

The whitish areas on the outer surface of the pods in most lots are due to bruising. Many minor surface bruises often occur in ordinary handling and packing. The depth and area affected should be considered in scoring bruising. Avoid scoring pods which are not bruised enough to affect the appearance of the individual pod or the lot.

Bruising sometimes can be confused with Thrips Injury; however, bruising usually occurs as larger areas with a greenish tinge. Always show the location of bruising in the container and load.

Cleanness (Dirt, Leaves, Vines, Or Foreign Matter) (Q)

Usually no mention need be made of cleanness or dirt, but whenever individual pods are caked with mud or the contents in the container are materially affected by mud smeared pods constituting "damage," they should be scored. Leaves, vines, or foreign matter are seldom encountered, except when there is careless harvesting and containers sometimes contain excessive amounts of leaves and plants, etc. These objects should not be scored unless the general appearance of the contents in the container is affected. Then include all leaves, plants, etc. with other defects.

Condition Of Calyxes (C)

**** **The condition of calyxes should be indicated on the notesheet on all pea inspections.**

The U.S. Fancy grade and peas specified as U.S. No. 1 Green Calyxes require the calyxes to be "Fairly good green color," which means that an average of three-fourths or more, by weight, of the pods in any lot, but not less than one-half of the pods in each container, have calyxes which are of a fairly good green color. The percentages shall be determined for each sample when necessary to determine if the requirement for "green calyxes" is met.

The U.S. No. 1 grade has no requirement as to the color of the calyxes. White, yellow, or light brown discoloration shall not be scored as a defect.

Certifying A Percentage Of Green Calyxes Not Permitted

A U.S. No. 1, or a percentage of U.S. No. 1 Quality, may carry the "green calyxes" statement if it meets the requirements.

No percentage of green calyxes is to be shown in the grade statement on either a U.S. No. 1 or a percentage lot.

That is "Approximately 85 percent U.S. No. 1 Quality, Green Calyxes" is correct, but "U.S. No. 1, 60 percent Green Calyxes" is not permitted.

Black Calyxes

**** The U.S. Fancy and U.S. No. 1 grades require “that the pods be free from damage by black calyxes.” White, yellow, or light brown discoloration is not a defect of the U.S. No. 1 grade. Black Calyxes shall be scored as damage when affecting the appearance of the pod. Black calyxes shall not be scored as serious damage. ****

Defects Affecting the Peas (seeds) (Q or C)

§51.1376 U.S. No. 1...The peas shall be at least fairly tender, free from decay, and from damage caused by split skins, disease, insects or mechanical or other means.

The percentage of defects affecting the pea (seed) shall be determined by removing the peas from the pod during the process of inspection. As the inspector examines the pods, he/she should also open a sufficient number of pods to examine the peas (seeds). When defects are found affecting the peas, the weight of the entire pod and peas shall be scored as damage only. Defects affecting peas (seeds), which are not listed below, shall be scored on the basis of damage when two or more peas are materially affected. Keep in mind, only peas (seeds) that are considered to be at least fairly well developed shall be considered when determining damage (except for decay). Refer to the **Maturity and Tenderness** section for scoring guidelines of peas which are not fairly tender.

Split Skins Or Sprouts (C)

Fresh peas are to be free from damage caused by split skins or sprouts. As a guide, score the pod as damage when two or more peas have split skins or sprouts.

Seed Spot (C)

Seed spot is a brownish discoloration on the individual pea (seed) sometimes called “heat injury.” As a guide, score the pod as damage when it affects an appreciable area, (10 percent or more of the total surface of the pea) or not light in color, on two or more peas.

Downy Mildew (Q)

This is a field disease of the plant generally occurring during wet, moderately cool growing seasons. The disease is of market importance because the blemishes produced on the pods often form a white mold-like growth from the inside walls of the pods. The spore stage of the fungus sometimes forms within the walls of the growing pods and causes yellowish blotches or slightly raised blister-like areas, which damage

the appearance of the pods. There is usually no visible surface mold on the outside of the pod. The development of the yellow blotches and blisters occur during the pod development on the vine. Whenever this disease is sufficient to cause damage, it should be handled as a quality factor rather than condition. Slight mildew inside the pod is not considered damage if it is not noticeable on the outside of the pod and the peas themselves are not affected. Moderate amounts of mold-like formations inside the pod should be scored as damage. Pods with heavy amounts and seriously affected by Downy Mildew are classed as serious damage.

Discoloration of Pods (C)

Discoloration affecting the pods may be caused by various factors, and may be yellow, brown or black in color. Score discoloration under the general definitions of damage and serious damage.

As a guide, score as damage when affecting more than 10 percent of the pod, and serious damage when affecting more than 25 percent of the pod.

Dry Or Brown Tips (Q)

Dry or brown tips frequently are encountered in the inspection of the peas in the market. Generally, they are not an important factor. Occasionally, they are sufficiently severe that individual pods should be scored as damage when affecting the appearance of the pod as a quality factor.

Filling Of Pods (Q)

The U.S. No. 1 grade requires that the individual pod be “fairly well filled” which is defined as meaning that more than one-half of the pod contains peas which are at least fairly well developed.

The U.S. Fancy grade requires that the individual pod be “well filled” which is defined as meaning that more than two thirds of the pod contain peas which are at least fairly well developed. A fairly well developed pea can be somewhat flat but forming a slightly oblong to round appearance when viewed from the side.

Freezing (Q or C)

For a full description of freezing injury and frozen stock, see paragraphs under “Freezing Injury” and “Reporting Different Types Freezing Injury” in the General Market Inspection Instructions. It should be remembered that all types of freezing are generally handled under the condition heading due to their progressive nature. Freezing which occurred in the field is characterized by numerous small white spots, causing a speckled appearance, or by white lines or streaks or both. This defect can be scored as

quality if affecting one-fifth or more of the surface of the pod and is apparent that it was present at the time of packing.

Freshness (C)

U.S. No. 1 and U.S. Fancy grades require that the peas be fresh. If the ice is depleted or the refrigeration is not adequate, the pods may become wilted and rubbery. Pods in this condition are scorable as serious damage. Pods which are shriveled shall be scored on the basis of materially or seriously affecting the appearance, edible or shipping quality.

Hail Damage And Scars (Q)

Healed scars caused by hail and other scars, which show depth should be scored more severely than surface scarring. The depth and degree of color shall be considered in determining whether the appearance is materially affected and scorable under the damage definition. Inspectors should avoid becoming too technical when scoring light colored scarring.

Maturity and Tenderness (Q)

The U.S. No. 1 and U.S. Fancy grades require that pea pods shall not be "overmature," and the peas shall be at least fairly tender.

§51.1381 Overmature.

"Overmature" means that the pod has developed beyond the stage at which it is desirable as a fresh product. The pod is usually wrinkled and the green is faded, having a noticeably whitish or yellowish cast.

The standard defines "overmature" in relation to the pod. However, tenderness of the peas is also a factor of maturity. The U.S. grades require the peas (seeds) to be at least fairly tender. The color of the pod is usually, but not always, a reliable indication for the tenderness or toughness of the pea. Pods which are wrinkled and turning gray to white at the seams may indicate that the peas are not fairly tender. A good test is to take a pea (seed) between the thumb and forefinger, and if pressure crushes the cotyledons (the two halves of the pea), the pea is sufficiently tender for U.S. Fancy or U.S. No. 1. If the cotyledons are so firm that pressure causes them to split the skin slip, and fly apart without crushing, the seed is too tough to be considered fairly tender.

Pods with a normal green to dark green color should be reported as showing good green color. Those with a normal light green color, not associated with over maturity, should be reported as fairly good green color and meet the requirements of the

U.S. grades as to maturity. Overmature pods may appear as white, yellow or show practically no green color and are hard.

Scoring Guide:

Overmaturity of pods and/or peas shall be scored as serious damage and reported as "Overmature." When scoring overmature pods or peas (seeds), the inspector shall weigh the entire pod.

Pod Spot (Ascochyta Blight) (Q)

This disease usually appears as small, circular, sharply depressed spots with tan colored centers, ordinarily surrounded by darker colored margins. Pod Spot should be scored when materially or seriously affecting the appearance, edible, or shipping quality of the peas.

As a guide, score as damage if the areas affected exceed those listed below on a pod 3 inches long. Allow correspondingly smaller or larger areas depending on the size of the pod.

1. One spot not over 1/8 inch in diameter.
2. Two spots affecting an aggregate area of not over 3/16 inch in diameter.
3. Three small spots, each not over 1/16 inch in diameter.

Shape of Pods (Also Mosaic) (Q)

U.S. No. 1 and U.S. Fancy require that the pods be "not badly misshapen." "Badly misshapen" means that the pod is badly constricted, crooked, or badly twisted. Twists, though seldom encountered, can be uniformly scored by allowing no greater twist than 45 degrees, which gives the pod a one-quarter turn when viewed from one end to the other. Mosaic is a field disease, which causes pods to become roughened, misshapen, or distorted. These should ordinarily be described as misshapen pods, but if the inspector is sure of cause state: "Roughened, misshapen, or distorted due to Mosaic." Badly misshapen pods are classed as serious damage.

Thrips Damage (Q)

Scars or discoloration caused by thrips should be handled on the basis of the definition of damage. When sufficiently severe to materially affect the appearance, it should be scored as a defect. The light grayish or silvery white color, which is caused by thrips extracting the sap from the surface cells of the pods should be ignored unless severe enough to materially affect the appearance of the individual pod.

As a guide the appearance will not be materially affected until more than 1/5 of the surface of the pod shows a silvery white color.

Decay (C)

All grades require fresh peas to be free from decay. Any amount shall be scored against the 1% tolerance for soft decay.

Do not report the type of decay on the certificate. However, when decay is in excess of the tolerance, report the degree and advancement as: early, moderate, or advanced. Refer to General Inspection Instructions.

In the market, Bacterial Soft Rot, Gray Mold Rot, Rhizopus Rot, and Watery Soft Rot are the most common types of decay. For further information refer to Agriculture Handbook No. 303, Market Diseases of Peas, etc.

Appendix I -- U. S. Grade Standards

United States Standards for Grades of Fresh Peas¹

Effective June 1, 1942

Introduction

51.1375 Introduction.

Grades

51.1376 U.S. No. 1.

51.1377 U.S. Fancy.

Tolerances

51.1378 Tolerances.

Unclassified

51.1379 Unclassified.

Definitions

51.1380 Similar varietal characteristics.

51.1381 Overmature.

51.1382 Excessively small.

51.1383 Badly misshapen.

51.1384 Fairly well filled.

51.1385 Well filled.

51.1386 Damage.

51.1387 Serious damage.

Introduction

§51.1375 Introduction.

(a) The tolerances for the standards are on a container basis. However, individual containers in any lot may vary from the specified tolerances as stated below, provided the averages for the entire lot, based on sample inspection, are within the tolerances specified.

(b) For a tolerance of 10 percent, individual containers in any lot may have not more than one and one-half times the tolerance.

(c) For a tolerance of less than 10 percent, individual containers in any lot may have not more than double the tolerance.

Grades

§51.1376 U.S. No. 1.

"U.S. No. 1" shall consist of pods of peas of similar varietal characteristics which are not overmature or excessively small, not badly misshapen or watersoaked, and which are fairly well filled, fresh, firm, free from decay, and from damage caused by black calyxes, freezing, splitting, hail, dirt, leaves, or other foreign matter, mildew, or other diseases, insects, or mechanical or other means. The peas shall be at least fairly tender, free from decay, and from damage caused by split skins, disease, insects or mechanical or other means.

(a) Peas may be specified as "U.S. No. 1 Green Calyxes" when they meet the requirements of U.S. No. 1 grade and an average of three-fourths or more, by weight, of the pods in any lot, but not less than one-half of the pods in each container, have calyxes which are of a fairly good green color.

§51.1377 U.S. Fancy.

U.S. Fancy shall consist of pods of peas which are well filled and have an average of three-fourths or more by weight, of the pods in any lot, but not less than one-half of the pods in each container with

¹ 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.

calyxes which are of a fairly good green color, and which meet the requirements of U.S. No. 1 grade in all other respects.

Tolerances

§51.1378 Tolerances.

In order to allow for variations incident to proper grading and handling, not more than 10 percent, by weight, of the pods of peas in any container may be below the requirements of the grade, but not more than one-half of this tolerance, or 5 percent, shall be allowed for defects causing serious damage, and not more than one-tenth of this tolerance, or 1 percent, shall be allowed for soft decay. When peas are specified as "U.S. No. 1 Green Calyxes" or "U.S. Fancy" no part of any tolerance shall be allowed to reduce for the lot as a whole, or for the individual container the percentage of pods which are required to have calyxes of a fairly good green color.

Unclassified

§51.1379 Unclassified.

Unclassified shall consist of peas which have not been classified in accordance with the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

Definitions

§51.1380 Similar varietal characteristics.

"Similar varietal characteristics" means that the pods of peas in any container are of the same general type.

§51.1381 Overmature.

"Overmature" means that the pod has developed beyond the stage at which it is desirable as a fresh product. The pod is usually wrinkled and the green is faded, having a noticeably whitish or yellowish cast.

§51.1382 Excessively small.

"Excessively small" means that the pod is so short that there is space for only two peas which are at least fairly well developed.

§51.1383 Badly misshapen.

"Badly misshapen" means that the pod is badly constructed, crooked, or badly twisted.

§51.1384 Fairly well filled.

"Fairly well filled" means that more than one-half of the pod contains peas which are at least fairly well developed.

§51.1385 Well filled.

"Well filled" means that more than two-thirds of the pod contains peas which are at least fairly well developed.

§51.1386 Damage.

"Damage" means any injury or defect which materially affects the appearance, edible or shipping quality.

§51.1387 Serious damage.

"Serious damage" means any injury or defect which seriously affects the appearance, edible or shipping quality. Badly misshapen pods or pods seriously affected with downy mildew injury shall be considered as being seriously damaged.



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Fresh
Products
Branch**

United States Standards for Grades of Southern Peas

Effective July 13, 1956
(Reprinted - January 1997)

United States Standards for Grades of Southern Peas¹

General

51.2670 General.

Grades

51.2671 U. S. No. 1.

51.2672 U.S. Commercial.

Unclassified

51.2673 Unclassified.

Application of Tolerances

51.2674 Application of tolerances.

51.2675 Basis for calculating percentages.

Definitions

51.2676 Similar varietal characteristics.

51.2677 Fairly well formed.

51.2678 Fairly well filled.

51.2679 Overmature.

51.2680 Excessively young.

51.2681 Damage.

51.2682 Serious damage.

General

§51.2670 General.

The standards contained in this subpart apply only to the seed pods of plants of the species *Vigna sinensis*, generally known as "southern peas", "cowpeas" or "field peas". Well recognized general types are blackeyes, crowders, creams, and purple hulls, each of which includes many varieties.

Grades

§51.2671 U.S. No. 1.

"U.S. No. 1" consists of pods of southern peas of similar varietal characteristics which are fairly well formed, fairly well filled, not overmature or excessively young, and which are free from decay and worm holes, and free from damage caused by stems, leaves and trash, stings or other insect injury, scars, discoloration, wilting, dirt or other adhering foreign material, disease, mechanical or other means.

(a) Unless otherwise specified, each pod shall be not less than 5 inches in length.

(b) In order to allow for variations incident to proper grading and handling, the following tolerances shall be permitted:

(1) 5 percent for pods which are shorter than the specified minimum length;

¹Compliance 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.

- (2) 5 percent for pods which are excessively young; and,
- (3) 10 percent for other grade defects, including not more than 5 percent for pods with worm holes or affected by decay, but not more than one-fifth of this amount, or 1 percent, for pods affected by decay. (See §51.2674 and 51.2675.)

§51.2672 U.S. Commercial.

"U.S. Commercial" consists of pods of southern peas which meet the requirements of U.S. No. 1 grade, except that they shall be free from serious damage caused by stems, leaves and trash, and there shall be no requirement for minimum length, and except for the increased tolerances specified in this section.

(a) In order to allow for variations incident to proper grading and handling, the following tolerances shall be permitted:

- (1) 10 percent for pods which are excessively young; and,
- (2) 15 percent for other grade defects, including not more than 5 percent for pods with worm holes or affected by decay, but not more than two-fifths of this amount, or 2 percent, for pods affected by decay. (See §51.2674 and 51.2675.)

Unclassified

§51.2673 Unclassified.

"Unclassified" consists of pods of southern peas which have not been classified in accordance with either of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no grade has been applied to the lot.

Application of Tolerances

§51.2674 Application of tolerances.

(a) The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations: **Provided**, That the averages for the entire lot are within the tolerances specified for the grade:

- (1) For a tolerance of 10 percent or more, individual packages in any lot may contain not more than one and one-half times the tolerance specified; and,
- (2) For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified.

§51.2675 Basis for calculating percentages.

Percentages shall be calculated on the basis of weight or on an equivalent basis.

Definitions

§51.2676 Similar varietal characteristics.

"Similar varietal characteristics" means that the pods in any container shall be of the same general type. For example, varieties of the blackeye type shall not be mixed with varieties of the purple hull type or varieties of the crowder type; also small seeded varieties shall not be mixed with large seeded varieties.

§51.2677 Fairly well formed.

"Fairly well formed" means that the pod is not curved or crooked to the extent that it forms approximately a semicircle or right angle.

§51.2678 Fairly well filled.

"Fairly well filled" means that at least two-thirds of the length of the pod is filled with peas which are at least fairly well developed for the variety, exclusive of the normal spaces between peas and

vacant space for one pea at each end of the pod.

§51.2679 Overmature.

"Overmature" means that the pod has developed beyond the stage at which it is desirable as a fresh product. Pods shall be considered overmature when they show definite drying or shriveling, or when green podded varieties show yellow or a conspicuous yellowish cast affecting one-half or more of the surface, or when purple hull varieties show excessively dark purplish color over the entire surface.

§51.2680 Excessively young.

"Excessively young" means that the pod has not developed any peas of a size suitable for shelling for the variety. Such pods with only slightly developed peas are commonly called "snaps."

§51.2681 Damage.

"Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual pod, or the general appearance of the pods in the container. The pods in a container shall be considered damaged when stems, leaves or trash are present in sufficient quantities to materially affect the general appearance. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- (a) Stings when any pea is discolored, or when the appearance of the pod is materially affected by numerous, discolored stings;
- (b) Scars when the pod is so extensively blemished or distorted in shape as to materially affect its appearance;
- (c) Discoloration such as that caused by rust, blight or insects when so extensive or in such contrast to the color of the pod as to materially affect its appearance;
- (d) Wilting when the pod is badly wilted or very flabby; and,
- (e) Dirt or other adhering foreign material when materially affecting the appearance of the individual pod or the general appearance of the pods in the container.

§51.2682 Serious damage.

"Serious damage" means that stems, leaves and trash are present in sufficient quantities to seriously affect the appearance of the pods in the container.



**United States
Department of
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**Agricultural
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United States Standards for Grades of Pea Pods

Effective January 22, 2007

United States Standards for Grades of Pea Pods¹

General

51.1360 General.

Grades

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51.1362 U.S. No. 1.

Tolerances

51.1363 Tolerances.

Application of Tolerances

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51.1365 Similar varietal characteristics.

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51.1373 Length.

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51.1376 Damage.

51.1377 Serious Damage.

General

§51.1360 General.

These standards are applicable to peas with a generally flat pod and immature peas, which are commonly referred to as pea pods or snow peas.

Grades

§51.1361 U.S. Fancy.

“U.S. Fancy” shall consist of pea pods of similar varietal characteristics which are clean, well formed, fresh, young and tender, good color, free from broken, decay, flabby and mold, and from injury by blistering, bruising, cracks, cuts, dirt, discoloration, disease, freezing, foreign material, insects, pitted, scars, shriveling, yellowing or mechanical or other means.

(a) **Size.** Unless otherwise specified the pods shall not be less than 2-1/2 inches in length.

§51.1362 U.S. No. 1.

“U.S. No. 1” shall consist of pea pods of similar varietal characteristics which are clean, fairly well formed, fresh, young and tender, fairly good color, free from broken and decay, and from damage by blistering, bruising, cracks, cuts, dirt, discoloration, disease, flabby, freezing, foreign

¹ 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.

material, insects, mold, pitted, scars, shriveling, yellowing or mechanical or other means.

(a) **Size.** Unless otherwise specified the pods shall not be less than 2 inches in length.

§51.1363 Tolerances.

In order to allow for variations incident to proper grading and handling in the foregoing grades the following tolerances, by count, shall be permitted in any lot.

(a) **U.S. Fancy.**

(1) **For defects.** Ten percent in any lot which fail to meet the requirements of the grade, including not more than 5 percent shall be allowed for defects causing damage, including therein, not more than 1 percent decay.

(2) **For size.** Five percent in any lot which fail to meet the length requirement.

(b) **U.S. No. 1.**

(1) **For defects.** Ten percent in any lot which fail to meet the requirements of the grade, including not more than 5 percent shall be allowed for defects causing serious damage, including therein, not more than 2 percent decay.

(2) **For size.** Five percent in any lot which fail to meet the length requirement.

§51.1364 Application of Tolerances.

Individual samples in a lot, based on sample inspection, are subject to the following limitations:

(a) For a tolerance of 10 percent, individual samples in a lot may not contain more than one and one-half times the tolerance specified: **Provided,** That the average for the entire lot is within the tolerance specified for the grade.

(b) For a tolerance of less than 10 percent, individual samples in a lot may not contain more than double the tolerance specified: **Provided,** That the average for the entire lot is within the tolerance specified for the grade.

Definitions

§51.1365 Similar varietal characteristics.

“Similar varietal characteristics” means that the pea pods in any lot are of the same general type and color.

§51.1366 Clean.

“Clean” means practically free from dirt, sand, or other adhering foreign material.

§51.1367 Fresh.

“Fresh” means not soft, wilted, or shriveled.

§51.1368 Well formed.

“Well formed” means that the pod is fairly straight and flat, with the stem and blossom ends fairly symmetrical.

§51.1369 Fairly well formed.

“Fairly well formed” means that the pod is relatively straight, relatively flat and not curved or constricted.

§51.1370 Young and tender.

“Young and tender” means not overmature with fully developed peas or faded green pods, with a noticeably whitish or yellowish cast.

§51.1371 Good color.

“Good color” means the pods are at least medium green color.

§51.1372 Fairly good color.

“Fairly good color” means the pods are at least light green color.

§51.1373 Length.

“Length” means the distance from the blossom end to the point where the pod meets the stem.

§51.1374 Aggregate.

“Aggregate” means that the total affected areas are based on a pea pod 2-1/2 inches in length, with corresponding smaller or larger areas on smaller or larger pea pods.

§51.1375 Injury.

“Injury” means any defect or combination of defects that more than slightly affects the appearance, edible, or shipping quality.

- (a) Blistering when exceeds an aggregate area of a circle 1/4 inch in diameter.
- (b) Bruising when exceeds an aggregate area of a circle 3/8 inch in diameter.
- (c) Cracks or cuts when exceeds 1/8 inch in length.
- (d) Discoloration when exceeds an aggregate area of a circle 1/4 inch in diameter.
- (e) Pitting when exceeds an aggregate area of a circle 3/8 inch in diameter.
- (f) Shriveling when exceeds an aggregate area of more than 5% of the surface.
- (g) Yellowing when exceeds an aggregate area of more than 5% of the surface.

§51.1376 Damage.

“Damage” means any defect or combination of defects that materially affects the appearance, edible, or shipping quality.

- (a) Blistering when exceeds an aggregate area of a circle 3/8 inch in diameter.
- (b) Bruising when exceeds an aggregate area of a circle 1/2 inch in diameter.
- (c) Cracks or cuts when exceeds 1/4 inch in length.
- (d) Discoloration when exceeds an aggregate area of a circle 3/8 inch in diameter.
- (e) Flabby when exceeds an aggregate area of more than 10% of the pod.
- (f) Mold when exceeds an aggregate area of more than 5% of the surface.
- (g) Pitting when exceeds an aggregate area of a circle 1/2 inch in diameter.
- (h) Shriveling when exceeds an aggregate area of more than 10% of the surface.
- (i) Yellowing when exceeds an aggregate area of more than 10% of the surface.

§51.1377 Serious damage.

“Serious damage” means any defect or combination of defects which seriously affects the appearance, edible, or shipping quality.

- (a) Blistering when exceeds an aggregate area of a circle 1/2 inch in diameter.
- (b) Bruising when exceeds an aggregate area of a circle 5/8 inch in diameter.
- (c) Cracks or cuts when exceeds 3/8 inch in length.
- (d) Discoloration when exceeds an aggregate area of a circle 1/2 inch in diameter.
- (e) Flabby when exceeds an aggregate area of more than 20% of the pod.
- (f) Mold when exceeds an aggregate area of more than 10% of the surface.
- (g) Pitting when exceeds an aggregate area of a circle 5/8 inch in diameter.
- (h) Shriveling when exceeds an aggregate area of more than 20% of the surface.
- (i) Yellowing when exceeds an aggregate area of more than 20% of the surface.