

Under date of April 16, 1935 --

For the sake of uniformity in various markets to which New Jersey commodities are consigned, the State Board of Agriculture has promulgated as state grades the United States grades wherever such grades meet with the requirements of shippers in New Jersey. Where United States grades are not available or do not meet the requirements of New Jersey shippers, the board has promulgated special New Jersey grades.

The use of these grades is voluntary.

As of February 18, 1955, the attached United States grades are used in New Jersey.

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR APPLES FOR PROCESSING
(Effective Sept. 2, 1946) 71

GRADES

U. S. No. 1 shall consist of apples of one variety which are not overripe and which are free from decay, worm holes, freezing injury and internal breakdown. The apples shall also be free from any defect which cannot be removed during the usual commercial preparation for use without causing a loss of over 5 percent, by weight, of the apple in excess of that which would occur if the apple were perfect. (See Size.)

U.S. No. 2 shall consist of apples of one variety which are not overripe and which are free from freezing injury and internal breakdown. The apples shall also be free from any defect which cannot be removed during the usual commercial preparation for use without causing a loss of over 25 percent, by weight, of the apple in excess of that which would occur if the apple were perfect. (See Size.)

Culls shall consist of apples which do not meet the requirements of either of the foregoing grades.

SIZE

The minimum size and range of size may be fixed by agreement between buyer and seller. The measurement for minimum size shall be the largest diameter taken at right angles to a line from stem to blossom end and the measurement for maximum size shall be the smallest diameter taken at right angles to a line from stem to blossom end.

TOLERANCES

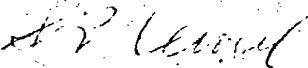
In the application of these standards it is contemplated that in most instances sellers will not sort their apples into separate lots of the various grades and sizes before delivery to the buyer, and that the

71 These standards supersede the U.S. Standards for Cannery Apples which were effective July 23, 1930.

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buyer will pay on the basis of the percentage of each grade and size in the lot as determined by inspection. In such cases, there is no need for tolerances. If the contract between buyer and seller provides for the delivery of lots containing only one grade and size, such as "U.S. No. 1-2-1/4 inches up," "U. S. No. 1-2-1/4 to 2-1/2 inches," or "U.S. No. 2-2-1/4 inches up," then unless otherwise specified, a 10 percent tolerance shall be allowed for apples which fail to meet the requirements of the grade upon which the contract is based, and an additional tolerance of 5 percent shall be allowed for apples below any specified minimum size and an additional tolerance of 10 percent shall be permitted for apples above any specified maximum size.

Issued August 9, 1946
Reissued April 14, 1948



Acting Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR ASPARAGUS (FRESH) 1/
(Effective February 15, 1941)

INTRODUCTION

The tolerances for the standards are on a container basis. However, individual packages 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.

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.

For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified.

GRADES

U. S. No. 1 shall consist of stalks of asparagus which are fresh, well trimmed, and fairly straight; which are free from decay and from damage caused by spreading or broken tips, dirt, disease, insects, or mechanical or other means.

Unless otherwise specified each stalk shall have a diameter of not less than one-half inch, and not less than two-thirds of the stalk length shall be of a green color. Any lot may be otherwise classified as to diameter and amount of green color. (See Diameter Classification, Amount of Green Color and Stalk Length)

Tolerance for Defects. In order to allow for variations, other than diameter, length, and trimming, incident to proper grading and handling, not more than 10 percent, by count, of the stalks 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-fifth of this amount, or 1 percent, shall be allowed for decay. In addition, not

1/ This is a reissue of U. S. Standards for Asparagus (Fresh) (Effective February 15, 1941) formerly issued by the War Food Administration. Food Distribution Administration. No change is made in the text of the standards.

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more than 10 percent, by count, of the stalks in any container may be not well trimmed.

Tolerance for Diameter and Length. In order to allow for variations in diameter and length incident to proper sizing, not more than a total of 10 percent, by count, of the stalks in any container may be below the prescribed minimum diameter for the grade or any other specified minimum diameter or any specified minimum length.

U. S. No. 2 shall consist of stalks of asparagus which are fresh, fairly well trimmed, and not badly misshapen; which are free from decay and from serious damage caused by spreading or broken tips, dirt, disease, insects, or mechanical or other means.

Unless otherwise specified each stalk shall have a diameter of not less than five-sixteenths inch, and not less than one-half of the stalk length shall be of a green color. Any lot may be otherwise classified as to diameter and amount of green color. (See Diameter Classification, Amount of Green Color and Stalk Length)

Tolerance for Defects. In order to allow for variations, other than diameter, length, and trimming, incident to proper grading and handling, not more than 10 percent, by count, of the stalks in any container may be below the requirements of the grade, but not more than one-tenth of this tolerance, or 1 percent, shall be allowed for decay. In addition, not more than 10 percent, by count, of the stalks in any container may be not fairly well trimmed.

Tolerance for Diameter and Length. In order to allow for variations in diameter and length incident to proper sizing, not more than a total of 10 percent, by count, of the stalks in any container may be below the prescribed minimum diameter for the grade or any other specified minimum diameter or any specified minimum length.

Unclassified shall consist of stalks of asparagus which have not been classified in accordance with any 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 definite grade has been applied to the lot.

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DIAMETER CLASSIFICATION

The following terms are provided for describing the diameters of any lot:

Very Small	-	-	Less than 5/16 inch
Small	-	-	5/16 inch to less than 8/16 inch
Medium	-	-	8/16 inch to less than 11/16 inch
Large	-	-	11/16 inch to less than 14/16 inch
Very Large	-	-	14/16 inch and up

AMOUNT OF GREEN COLOR

When the asparagus has less or more green color than is specified in the grade it may be described as 1/4 green, 3/4 green, etc., in accordance with the facts.

STALK LENGTH

There is no minimum stalk length specified in the grades but the minimum stalk length should be stated in terms of whole or whole and half inches in connection with the grade designation as U. S. No. 1 - 8-1/2 inch minimum, U. S. No. 1 Large - 7 inch minimum, U. S. No. 1 Large - 10-1/2 inch minimum, etc., in accordance with the facts.

The reason no definite minimum length is specified is due to the wide variation in minimum stalk length as packed in the various producing districts. This variation in stalk length ranges from 5 to 7 in some districts to 8-1/2 to 10-1/2 inches in others.

DEFINITIONS OF TERMS

As used in these standards:

"Fresh" means that the stalk is not limp or flabby.

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"Well trimmed" means that at least two-thirds of the butt of the stalk is smoothly trimmed in a plane approximately parallel to the bottom of the container and that the butt is not stringy or frayed.

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

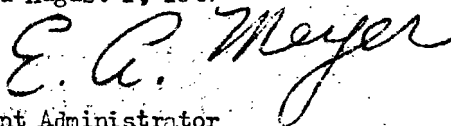
"Diameter" means the greatest thickness of the stalk measured at a point approximately 1 inch from the butt.

"Fairly well trimmed" means that at least one-third of the butt of the stalk is smoothly trimmed in a plane approximately parallel to the bottom of the container and that the butt is not badly stringy or frayed.

"Badly misshapen" means that the stalk is so badly flattened, crooked or otherwise so badly deformed that its appearance is seriously affected.

"Serious damage" means any injury or defect which seriously affects the appearance, edible or shipping quality.

Issued February 3, 1941
Reissued August 1, 1947



Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

U. S. STANDARDS FOR SNAP BEANS
(Effective August 1, 1936)

INTRODUCTION

The tolerances for the standards are on a container basis. However, individual packages 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.

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.

For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified.

GRADES

U. S. Fancy shall consist of beans of similar varietal characteristics which are of reasonable and fairly uniform size, well formed, bright, clean, fresh, young and tender, firm, and free from damage caused by leaves, leaf stems, other foreign matter, hail, disease, insects or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of 10 percent, by weight, of the beans in any container may be below the requirements of this grade, but not more than 5 percent shall be allowed for defects causing serious damage, and not more than 1 percent shall be allowed for beans affected by soft rot.

U. S. No. 1 shall consist of beans of similar varietal characteristics which are of reasonable size, fairly well formed, fairly bright, fresh, fairly young and tender, firm, and free from damage caused by dirt, leaves, leaf stems, other foreign matter, hail, disease, insects or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of 10 percent, by weight, of the beans in any container may be below the requirements of this grade, but not more than 5 percent shall be allowed for defects causing serious damage, and not more than 1 percent shall be allowed for beans affected by soft rot.

U. S. Combination shall consist of a combination of U. S. No. 1 and U. S. No. 2 snap beans, provided that at least 75 percent, by weight, meet the requirements of U. S. No. 1 grade.

In order to allow for variations incident to proper grading and handling, not more than a total of 10 percent, by weight, of the beans in any container may be below the requirements of U. S. No. 2 grade, but not more than 1 percent shall be allowed for beans affected by soft rot. No part of this tolerance shall be allowed to reduce for the lot as a whole, the percentage of U. S. No. 1 beans required in the combination but individual containers may have not more than 10 percent less than the percentage of U. S. No. 1 beans required.

U. S. No. 2 shall consist of beans of similar varietal characteristics which are fairly fresh, firm and not overmature and free from serious damage caused by dirt, leaves, leaf stems, other foreign matter, hail, disease, insects or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of 10 percent, by weight, of the beans in any container may be below the requirements of this grade but not more than 1 percent shall be allowed for beans affected by soft rot.

Unclassified shall consist of beans which are not graded in conformity with the foregoing grades.

DEFINITIONS OF TERMS

As used in these standards:

"Similar varietal characteristics" means that the beans are of the same color and general type. For example, wax and green beans, or beans of the Refugee and Valentine types must not be mixed.

"Reasonable size" means that the pods are not spindly or excessively short for the variety and have not been prematurely picked.

"Well formed" means that the pods have the normal typical shape for the variety.

"Firm" means that the pods are not wilted or flabby.

"Damage" means any injury or defect which materially affects the appearance or the edible or shipping quality. Pods having spots due to Blight or Anthracnose, and similar spots caused by other diseases shall be considered as damaged.

"Fairly well formed" means that the pods are not badly crooked, curled, twisted or otherwise badly misshapen for the variety. Excessively tapered pods caused by unfavorable pollinating or growing conditions shall not be considered as fairly well formed.

"Overmature" means that the walls of the pods are distinctly woody or fibrous.

"Serious damage" means any injury or defect which seriously affects the appearance or the edible or shipping quality.

Issued July 20, 1936.

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR SNAP BEANS FOR CANNING OR FREEZING 1/
(Effective March 1, 1940)

INTRODUCTION

The accompanying grades for snap beans are intended to facilitate transactions between growers and canners who may wish to use a purchasing system based upon the quality of beans delivered to the canning plant. These grades are an outgrowth of the widely accepted principle that price should be directly proportional to quality. The grower delivering high quality beans deserves a premium price, because such beans enable the canner to pack a better quality finished product.

Under a system of payments with proper price differentials based upon quality as determined by standard grades, growers are compensated for additional expenditures necessitated by better growing and harvesting practices.

Attention is called to the fact that no tolerances are provided in the standards for beans which fail to meet the requirements for any specified grade. It is usually too expensive and impractical for growers to sort snap beans in the field and separate them into various grades. Snap beans are generally delivered to the cannery as "field run." The most practical method of measuring the quality of "field run" beans is by sampling, sorting and determining the percentages of U. S. No. 1, U. S. No. 2, and Cull beans in any lot. There is no need for tolerances under this system. There may be occasions when a lot of beans is sold on the basis of one grade, such as U. S. No. 1 but it is not to be expected that all beans in any lot will meet the requirements of U. S. No. 1 grade. Therefore, it is suggested that when beans are sold on the basis of one grade the parties to the contract should agree on a tolerance for beans which fail to meet the grade requirements.

1/ This is a reissue of U. S. Standards for Snap Beans For Canning or Freezing (effective March 1, 1940) formerly issued by the Agricultural Marketing Service. No change is made in the text of the standards.

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Snap beans for canning or freezing are usually contracted before they have been planted.

In using the grades system of buying and selling, two fundamental principles should be given consideration in the contract. First, provision should be made for inspection of each lot of beans delivered to the plant. Second, the contract should specify the prices to be paid for beans of various qualities expressed in terms of U. S. grades.

The application of these grades requires the service of private or official inspectors to determine the proportions of each grade in the various lots of beans. Such inspectors must be capable, efficient, and above all, they must be absolutely impartial. The inspector's report should show the percentage of U. S. No. 1, U. S. No. 2 and Cull beans.

Numbers in parentheses following grade terms indicate where such terms are defined under Definitions of Terms.

GRADES

(Note: No tolerances are provided in these standards. See suggestions for contracting under "Introduction.")

U. S. No. 1 shall consist of snap beans of similar varietal characteristics (1) which are fresh (2), firm (3), tender (4), fairly well formed (5), free from foreign material, vines (6), decay, anthracnose, and from injury (7) caused by rust, scars, insects, disease, mechanical or other means.

For ROUND VARIETIES, unless otherwise specified, the maximum diameter (8) of beans allowed in this grade shall be not greater than 24/64 of an inch (commonly known as 4-sieve size and smaller). Beans 24/64 of an inch in diameter (8) and smaller shall in all cases be classed as U. S. No. 1 provided they meet the other requirements for this grade. (See "Size Classification")

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For FLAT OR SEMI-ROUND VARIETIES the maximum diameter (8) of beans allowed in this grade may be fixed by agreement between buyer and seller. (See "Size Classification")

U. S. No. 2 shall consist of snap beans of similar color, which are not extremely different in shape of cross section (9) and which are fairly fresh (10), firm (3), not tough or overmature (11), not seriously misshapen (12), free from vines (6), foreign material, decay, anthracnose, and from damage (13), caused by rust, scars, insects, disease, mechanical or other means.

There shall be no size requirements for U. S. No. 2 grade.

Culls and Cull material shall consist of beans which do not meet the requirements of either of the foregoing grades, and shall include foreign material and vines (6).

DEFINITIONS OF TERMS

As used in these standards:

1. "Similar varietal characteristics" means that the beans are of the same general type and color.
2. "Fresh" means that the pod is not materially wilted.
3. "Firm" means that the walls of the bean are reasonably solid, not puffy or spongy.
4. "Tender" means that the pod is succulent and practically free from fibre or strings.
5. "Fairly well formed" means that the bean is not more than moderately curved, crooked, twisted or tapered. (See illustration)
6. "Vines" means any part of the bean plant excepting pods and the short stems or petioles on which the pods are borne. In making grade determinations, all vines attached to the beans shall be removed and placed with the culls.

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7. "Injury" means any defect which affects the canning or freezing quality.

8. "Diameter" means thickness as determined by the width of the smallest slot through which the bean may be passed, without forcing, in any one or combination of positions.

9. "Extremely different in shape of cross section" means that distinctly round type and distinctly flat type beans are mixed in the same container. Beans which are a mixture of round and semi-round types or are a mixture of flat and semi-round types are not considered extremely different and shall be allowed in U. S. No. 2 grade.

10. "Fairly fresh" means that the pod is not materially wrinkled.

11. "Tough or overmature" means that the pod is tough, leathery or fibrous from any cause.

12. "Seriously misshapen" means that the bean is badly curved, crooked, twisted or tapered. (See illustrations)

13. "Damage" means any defect which materially affects the canning or freezing quality.

SIZE CLASSIFICATION

Subject to agreement between buyer and seller, other size specifications may be used in connection with U. S. No. 1 grade in order to permit larger size beans in this grade and/or to allow for subdivision of the grade on the basis of size; provided, however, that round beans which are 24/64 inch in diameter (8) and smaller, shall in no case be excluded from U. S. No. 1 grade on account of size.

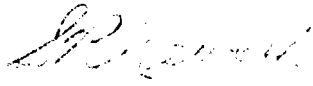
When special size specifications are used, it is recommended that they be based upon one or more of the following generally recognized size classifications:

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<u>Sieve Size</u>	<u>Diameter</u>
No. 1. sieve size beans	$\frac{14.5}{64}$ of an inch and smaller
No. 2. sieve size beans Over $\frac{14.5}{64}$	to $\frac{18.5}{64}$ of an inch, inclusive
No. 3. sieve size beans Over $\frac{18.5}{64}$	to $\frac{21}{64}$ of an inch, inclusive
No. 4. sieve size beans Over $\frac{21}{64}$	to $\frac{24}{64}$ of an inch, inclusive
No. 5. sieve size beans Over $\frac{24}{64}$	to $\frac{27}{64}$ of an inch, inclusive
No. 6. sieve size beans Over $\frac{27}{64}$	of an inch

Issued February 26, 1940

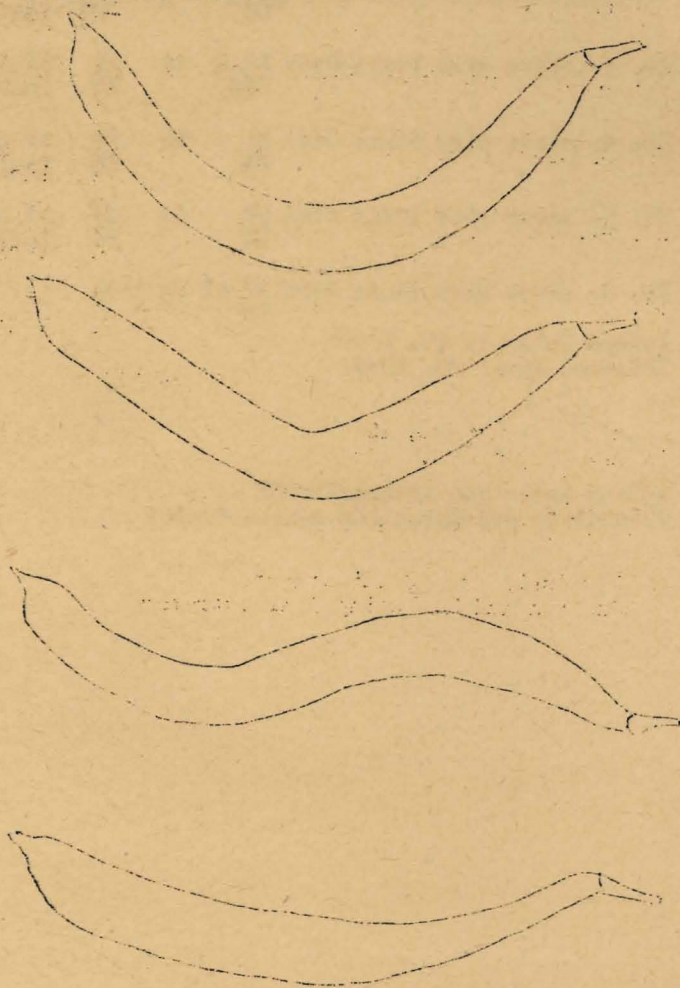
Reissued April 20, 1948


Acting Assistant Administrator
Production and Marketing Administrator

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FAIRLY WELL FORMED SNAP BEANS

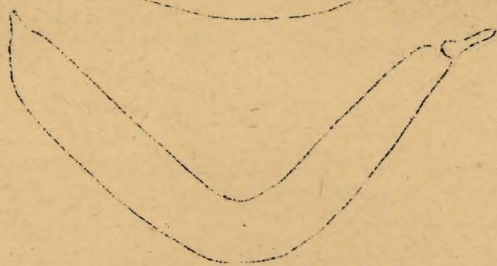
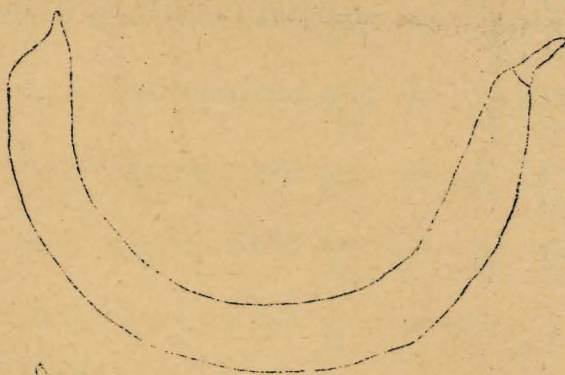
Poorest shapes permitted in U. S. No. 1 Grade



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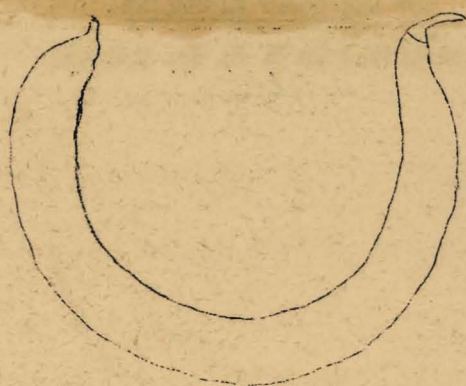
NOT SERIOUSLY MISSHAPEN

Poorest shapes permitted in U. S. No. 2 Grade



SERIOUSLY MISSHAPEN

Culls



UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR FRESH SHELLED LIMA BEANS
FOR PROCESSING 1/

(Effective June 6, 1953)

INTRODUCTION

The accompanying grades for fresh shelled lima beans are intended to facilitate transactions between growers and processors, who may wish to contract on the basis of the quality of lima beans delivered. These grades are an outgrowth of the widely accepted principle that price should be directly proportional to quality. The conscientious grower who adopts up-to-date cultural practices and delivers high quality lima beans deserves a premium price because such lima beans enable the processor to pack a better quality finished product.

In the application of the standards the grower is not required to do any sorting of the lima beans. After vining, the inspector takes a representative sample from each lot of shelled beans and first determines the percentage, by weight, of foreign material. Using the remainder or some portion of the sample as 100 percent, he next sorts the beans into U. S. No. 1's, U. S. No. 2's and Culls, then calculates and reports the percentage, by weight, of each. Final settlement would be made by applying the percentage of each grade to the net weight of the lot, which is the total weight less any deduction specified in the contract for foreign material, and then applying the contract prices established for the percentage of U. S. No. 1 and U. S. No. 2 lima beans in the lot.

GRADES 2/

U. S. No. 1 consists of shelled lima beans of similar varietal characteristics
1/ These standards (18 F.R. 2635) supersede U. S. Standards for Fresh Shelled Lima Beans for Processing which were effective Dec. 27, 1945.

2/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

Agriculture - Washington, D. C.

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which are fairly tender (1), have a green color (2) and which are free from decay and from injury (3) caused by discoloration, shriveling, sunscald, heating, freezing, disease, insects, or other means (3).

U. S. No. 2 consists of shelled lima beans which are free from decay, and from damage (4) caused by discoloration, shriveling, sunscald, heating, freezing, disease, insects, or other means (4).

Culls are lima beans which fail to meet the requirements of either of the foregoing grades.

FOREIGN MATERIAL

Thistle buds, weed seeds, pods or other foreign material are not incorporated in the standards since their presence is not a factor of quality for the purpose of these grades. However, the amount of such foreign material permitted in a lot may be fixed by agreement between grower and processor.

DEFINITIONS

As used in these standards:

(1) "Fairly tender" means that the lima beans are not hard, tough, or rubbery.

(2) "Green color" means that the cotyledons of each bean shall have a green color characteristic of a tender or fairly tender bean for the variety.

(3) "Injury" means any defect which more than slightly affects the canning or freezing quality. Split or broken beans incident to proper harvesting and vining operations shall not be considered as injury.

(4) "Damage" means any defect which materially affects the canning or freezing

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quality. Split or broken beans incident to proper harvesting and vining operations shall not be considered as damage.

Issued May 21, 1953

George A. Hise
Deputy Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR BUNCHED BEETS 1/
(Effective November 4, 1950)

GRADES 2/

U. S. No. 1 consists of beets of similar varietal characteristics which are firm (1), fairly smooth (2), fairly well shaped (3), fairly clean (4), free from soft rot (5), and from damage (6) caused by growth cracks, disease, rodents, insects or mechanical or other means.

Bunches shall have tops which are fresh, and free from damage by any cause (7). The tops shall be either full size (8) or cut back to not less than 6 inches.

Unless otherwise specified, the minimum diameter (9) of the beets shall be 1-1/2 inches and the maximum diameter shall be 3 inches.

In order to allow for variations incident to proper grading and handling, not more than 5 percent, by count, of the beets in any lot may be smaller than the specified minimum diameter and not more than 10 percent may be larger than the specified maximum diameter. In addition, when the tops are cut back, not more than 15 percent of the bunches may have tops less than 6 inches. In addition, not more than a total of 10 percent of the beet roots may fail to meet the remaining requirements of this grade, but not to exceed 5 percent shall be allowed for defects causing serious damage (10), including not more than 1 percent for beet roots affected by soft rot. (See Application of Tolerances.)

Unclassified consists of bunched beets which have not been classified in accordance with the foregoing grade. 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.

1/ These standards supersede the U. S. Standards for Bunched Beets which were effective August 9, 1927.

2/ Numbers in parentheses following grade terms indicate where such terms are defined under Definitions.

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APPLICATION OF TOLERANCES

The contents of individual containers in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified:

When a tolerance is 10 percent or more, individual containers in any lot shall have not more than one and one-half times the tolerance specified, except that at least one defective and one off-size specimen may be permitted in a container.

When a tolerance is less than 10 percent, individual containers in any lot shall have not more than double the tolerance specified except that at least one defective and one off-size specimen may be permitted in a container.

SIZE TERMS

The following terms are provided for describing the diameters of beets in any lot: Small means less than 2 inches; Medium means 2 to 3 inches inclusive; Large means over 3 inches.

BUNCHING

Bunches shall be fairly uniform in size.

DEFINITIONS

As used in these standards:

(1) "Firm" means that the beet is not soft, flabby, or shriveled.

(2) "Fairly smooth" means that the appearance of the beet is not more than slightly injured by roughness or by the presence of secondary rootlets. Very slight roughness over the crown or very slight pitting caused by the shedding of dead leaves shall not be considered as injury to the appearance.

(3) "Fairly well shaped" means that the beet is not misshapen to such an extent as to materially injure its appearance.

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(4) "Fairly clean" means that individual beets are reasonably free from dirt, stain and other foreign matter and that the general appearance of the beets in the lot is not more than slightly affected by these causes.

(5) "Soft rot" means any soft, mushy or leaky condition of the tissue.

(6) "Damage" means any injury or defect which materially affects the appearance, or the edible or shipping quality of the individual beet, bunch or lot; or which cannot be removed without a loss of more than 5 percent of the total weight of the beet. Growth cracks which are not healed, and healed growth cracks which are not shallow and not smooth or which materially affect the appearance of the beet shall be considered as damage.

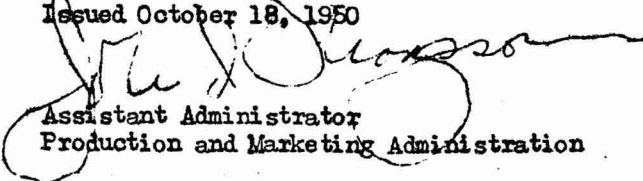
(7) "Tops which are fresh and free from damage by any cause" means that the tops are not badly wilted and that not more than 10 percent, by count, of the bunches in any lot may have any injury which materially affects the appearance of the tops. The appearance of individual bunches shall be considered materially affected when the tops are trimmed to the extent that only a few leaves or leafstems remain. The appearance of bunches with tops having a few slightly discolored leaves shall not be considered materially affected if the tops as a whole show a predominately normal color.

(8) "Full size" means that the tops have not been cut back, but dried or damaged leaves or leafstems may have been removed.

(9) "Diameter" means the greatest dimension taken at right angles to a straight line from the center of the crown to the base of the root.

(10) "Serious damage" means any injury or defect which seriously affects the appearance, or the edible or shipping quality of the individual beet, bunch, or lot; or which cannot be removed without a loss of more than 20 percent of the total weight of the beet.

Issued October 18, 1950


Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR TOPPED BEETS*
(Effective May 1, 1934)

INTRODUCTION

The tolerances for the standards are placed on a container basis. However, for a tolerance of 10 percent, individual packages in any lot may contain not more than one and one-half times the tolerance specified, and for one of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified, provided that at least one specimen which does not meet the requirements shall be allowed in any one package and that the average for the entire lot, based on sample inspection, shall average within the tolerances specified.

GRADES

U. S. No. 1 shall consist of beets of similar varietal characteristics which are firm, fairly smooth, fairly well shaped, well trimmed and free from soft rot, and from damage caused by freezing, growth cracks, cuts, dirt, disease, insects, rodents or mechanical or other means. Unless otherwise specified, the minimum diameter of the beets shall be not less than 2 inches. (See Size)

In order to allow for variations other than size incident to proper grading and handling, not more than 10 percent, by weight, of the beets in any container may be below the requirements of this grade but not more than one-tenth of this amount, or 1 percent, shall be allowed for soft rot.

Unclassified shall consist of beets which are not graded in conformity with the foregoing grade.

SIZE

The following terms are provided for describing the size of the beets in any lot: Small means less than 2 inches in diameter; medium means 2 to 3-1/2 inches inclusive; large means over 3-1/2 inches.

*This is a reissue of U. S. Standards for Topped Beets (effective May 1, 1934) formerly issued by the Bureau of Agricultural Economics. No change is made in the text of the standards.

In order to allow for variations incident to proper sizing not more than 5 percent, by weight, of the beets in any container may be below any specified minimum size and in addition not more than 10 percent may be above any specified maximum size.

DEFINITIONS OF TERMS

As used in these grades:

"Firm" means that the beet is not soft, flabby, or shirveled.

"Fairly smooth" means that the appearance of the beet is not materially injured by roughness such as is caused by abnormal growing conditions or roughness of the crowns caused by the shedding of a considerable number of dead leaves. Slight roughness over the crown or slight pitting caused by the shedding of dead leaves shall not be considered as injury to the appearance.

"Fairly well shaped" means that the beet is not misshapen to such extent as to materially injure its appearance.

"Well trimmed" means that the tops are trimmed to not more than one-half inch in length and that unattractive secondary rootlets have been removed.

"Soft rot" means any soft, mushy or leaky condition of the tissue.

"Damage" means any injury or defect which materially injures the appearance of the individual beet or the general appearance of the beets in the container, or which cannot be removed without a loss of more than 5 percent of the total weight of the beet.

"Diameter" means the greatest dimension of the beet taken at right angles to the longitudinal axis.

Issued April 23, 1934
Reissued March 15, 1945

William C. Crow
Acting Assistant Administrator
Production and Marketing
Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

U. S. STANDARDS FOR DEWBERRIES AND BLACKBERRIES (1928)

GRADES

U. S. No. 1 shall consist of dewberries or blackberries of one variety which are firm, well colored, well developed and not overripe, which are free from caps (calyxes), mold and decay, and from damage caused by dirt or other foreign matter, shriveling, moisture, disease, insects, mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10 percent, by volume, of the berries in any lot may be below the requirements of this grade, but not to exceed one-half of this tolerance or 5 percent, shall be allowed for defects causing serious damage and not more than one-fifth of this amount or 1 percent, may be affected by mold or decay.

U. S. No. 2 shall consist of dewberries or blackberries of one variety which are not graded in conformity with the foregoing grade and which do not contain more than 10 percent, by volume, of berries that have been seriously damaged from any cause, but not more than one-fifth of this amount, or 2 percent, may be affected by mold or decay.

UNCLASSIFIED shall consist of dewberries or blackberries which are not graded in conformity with the foregoing grades.

DEFINITIONS OF TERMS

As used in these grades:

"Well colored" means that the whole surface of the berry shall be a blue or black color.

"Well developed" means that the berries shall not be misshapen owing to anthracnose injury, frost injury, lack of pollination, insect injury, or other causes.

"Overripe" means dead ripe or soft, necessitating immediate consumption.

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

"Seriously damaged" means berries which are badly deformed, crushed, leaky, moldy, decayed or otherwise seriously injured. Berries which have less than one-half of the surface covered with a blue or black color shall be considered as seriously damaged.

Feb. 13, 1928.

UNITED STATES DEPARTMENT OF AGRICULTURE
WAR FOOD ADMINISTRATION
Office of Distribution*

U. S. STANDARDS FOR GROWERS' STOCK STRAWBERRIES
FOR MANUFACTURE

(Effective June 1, 1935)

INTRODUCTION

These standards are intended for use only as a basis for determining the quality of strawberries as they are delivered by the growers to the manufacturing plant. The requirements of the standards are not applicable nor is it intended that they shall apply to strawberries which have been washed and graded for barreling or packaging for market.

Buying and selling on the basis of uniform standards encourages better production and better handling methods. The practice of paying a flat price for all strawberries which are accepted discriminates against the best growers. The grower should be paid a suitable premium for strawberries which will make a high quality manufactured product. Likewise the grower should be penalized for the delivery of low quality berries.

It should be understood at the outset that in the application of these standards the only sorting required of the grower is the removal of cull berries. The standards provide a basis for sampling lots as they are delivered by the growers.

There are two methods suggested for applying the standards as a measure of quality of growers' deliveries. The manufacturer may contract with growers to pay a certain price per pound according to the actual percentage of U. S. No. 1 berries delivered, or at a certain price per pound for strawberries of each grade with the respective tolerances. In the first method the contract would disregard all tolerances and also U. S. No. 2, U. S. No. 3, and U. S. No. 4 grades.

*This is a reissue of U. S. Standards for Growers' Stock Strawberries for Manufacture which were effective June 1, 1935, formerly issued by the Bureau of Agricultural Economics. No change is made in the text of the Standards.

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To illustrate the first method of applying the standards, suppose the contract specifies that the manufacturer agrees to pay at the rate of 6 cents per pound according to the actual percentage of U. S. No. 1 berries delivered. The inspector takes a representative sample from a 300 pound lot of strawberries and finds that 93 percent of the berries, by weight, meet U. S. No. 1 requirements. Therefore, the lot would be settled for at the rate of 6 cents per pound for 93 percent of 300 pounds (279 pounds) or \$16.74 for the 300 pound lot. Similarly a 300 pound lot having 85 percent of U. S. No. 1 berries would be settled for at the rate of 6 cents per pound for 85 percent of 300 pounds (255 pounds) or \$15.30 for the 300 pound lot.

To illustrate the second method, suppose the contract specified that the manufacturer agrees to pay 6 cents per pound for U. S. No. 1 berries, 5 cents per pound for U. S. No. 2 berries, 4-1/2 cents per pound for U. S. No. 3 berries, and 4 cents per pound for U. S. No. 4 berries. The inspector takes a representative sample from a 300 pound lot of strawberries and finds that 96 percent of the berries, by weight, meet U. S. No. 1 requirements. Since a tolerance of 5 percent is allowed for this grade such a lot would grade U. S. No. 1 and would be paid for at the rate of 6 cents per pound. Therefore, the 300 pound lot would bring \$18.00.

If the inspector found the lot to contain 11 percent defective berries it would grade U. S. No. 3 and would be paid for at the rate of 4-1/2 cents per pound. In this case the 300 pound lot would bring \$13.50.

The foregoing prices are used for illustrative purposes only.

The application of these standards requires the services of private or official inspectors to determine and report the grade of each lot of strawberries delivered to the factory. Such inspectors must be capable, efficient and above all they must be absolutely neutral.

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GRADES

U. S. No. 1 shall consist of strawberries of one variety which are well colored, free from mold and decay and from soft, badly crushed or split, dried or undeveloped berries and from damage caused by dirt or other foreign matter, hail, sunscald, birds, disease, insects, mechanical or other means. Unless otherwise specified, the minimum size shall be not less than $5/8$ inch in diameter and the caps shall be entirely removed.

In order to allow for variations incident to proper handling, not more than 5 percent, by weight, of the strawberries in any lot may be below the requirements of this grade.

U. S. No. 2 shall consist of strawberries which meet all the requirements of U. S. No. 1 grade except that a tolerance of 10 percent, by weight, of the strawberries in any lot shall be permitted for grade defects.

U. S. No. 3 shall consist of strawberries which meet all the requirements of U. S. No. 1 grade except that a tolerance of 15 percent, by weight, of the strawberries in any lot shall be permitted for grade defects.

U. S. No. 4 shall consist of strawberries which meet all the requirements of U. S. No. 1 grade except that a tolerance of 20 percent, by weight, of the strawberries in any lot shall be permitted for grade defects.

Unclassified shall consist of strawberries which do not meet the requirements of any of the foregoing grades.

DEFINITIONS OF TERMS

As used in these standards:

"Well colored" means that at least four-fifths of the surface of the berry is covered with red or pink color.

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"Soft" means that more than one-third of the volume of the whole berry is mushy or will be removed in the ordinary process of washing.

"Dried" means appreciably lacking in juice. Dried berries are excessively seedy and often shriveled.

"Undeveloped" means lack of development due to frost or insect injury, lack of pollination or other means which causes the berry to be badly misshapen.

"Damage" means any injury or defect which materially affects the appearance or edible quality of the berry for manufacturing purposes.

"Damage by dirt" means that the berry shows dirt which will not wash off in the ordinary process of washing.

"Diameter" means the greatest dimension measured at right angles to a straight line running from the stem to the apex.

Issued May 25, 1935
Reissued October 28, 1944

C. W. Kirtland

Deputy Director
Office of Distribution

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR BROCCOLI FOR PROCESSING 1/
(Effective April 29, 1951)

INTRODUCTION

The accompanying grades for broccoli are intended to facilitate transactions between growers and processors who may wish to use a purchasing system based upon the quality of broccoli delivered. These grades are an outgrowth of the widely accepted principle that price should be directly proportional to quality. The grower who delivers high quality deserves a premium price, because such broccoli enables the processor to pack a better quality finished product.

In the application of these standards, it is assumed that sellers will not sort their broccoli into separate lots of U. S. No. 1 and U. S. No. 2 grades before delivery to the buyer, and that the buyer will pay a certain price for the percentage of each grade in the lot as determined by inspection. Upon delivery, the inspector will simply sort representative samples taken from each lot and determine the percentage of each grade. Final settlement would then be made by applying the percentage of each grade to the total weight of the lot, and then applying the contract prices established for each grade. Under such a procedure, there is no need for tolerances.

1/ This is the first issue of these standards.

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GRADES 2/

U. S. No. 1 consists of stalks (1) of broccoli which are fresh (2), tender (3), and have good characteristic color (4), and compact heads (5); which are free from decay and cull material (6), and are free from damage (7) caused by discoloration (7a), freezing (7b), hollow stem or pithiness (7c), scars (7d), dirt or other foreign material (7e), disease (7f), insects (7g), and mechanical or other means. (See Trimming Requirements.)

Unless otherwise specified, the length shall be not more than 6 inches nor less than 4 inches, and the diameter (8) of the stem shall be not less than 3/8 inch. (See Cull Material.)

U. S. No. 2 consists of stalks (1) of broccoli which are fresh (2), tender (3), and have good characteristic color (4), and fairly compact heads (9); which are free from decay and cull material (6), and are free from damage (7) caused by scars (7d), dirt or other foreign material (7e), disease (7f), insects (7g); and are free from serious damage (10) caused by discoloration (10a), freezing (10b), hollow stem or pithiness (10c), and mechanical or other means. (See Trimming Requirements.)

2/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

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Unless otherwise specified, the length shall be not more than 6 inches nor less than 3 inches, and the diameter (8) of the stem shall be not less than 1/4 inch. (See Cull Material)

Culls are stalks of broccoli which fail to meet the requirements of either of the foregoing grades.

Cull material. (See definition No. 6)

TRIMMING REQUIREMENTS

Unless otherwise specified, all coarse, damaged, and discolored leaves and leaves extending more than 1-1/2 inches above the top of the head shall be removed. In making grade determination, all coarse, damaged and discolored leaves, and leaves extending more than 1-1/2 inches above the top of the head shall be removed and scored as cull material.

DEFINITIONS

As used in these standards:

(1) "Stalk" means a portion of the broccoli plant including the stem, bud cluster and leaves.

(2) "Fresh" means that the broccoli is not badly wilted or excessively flabby.

(3) "Tender" means that the broccoli is succulent, and reasonably free from fibrous material and is not tough, or stringy.

(4) "Good characteristic color" means that the stem and external portion of the head has

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a light green or darker shade of green color, except that purplish color shall also be allowed on the external portion of the head.

(5) "Compact head" means that the individual head is closely formed, not open or spread to the extent that it has a loose appearance, and that the individual florets are fairly tightly formed and not more than moderately elongated.

(6) "Cull material" means all foreign material, any portion of the stem in excess of the maximum length specified, all stalks under the minimum length specified for the U. S. No. 2 grade, and all coarse, damaged and discolored leaves, and leaves extending more than 1-1/2 inches above the top of the head.

(7) "Damage" means any defect which more than slightly affects the appearance, or the processing or edible quality of the head, or any portion of the stem within 5 inches from the top of the head. 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) Discoloration, when more than very slight, or which will not change to light green or darker shade of green color in the ordinary process of blanching.

(b) Freezing, when causing more than slight discoloration of the individual unit.

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(c) Hollow stem or pithiness, when discolored, or when more than slightly affecting the appearance of the individual unit.

(d) Scars, when discolored, or when more than slight or superficial.

(e) Dirt or other foreign material, when more than slight, or which cannot be removed in the ordinary washing process.

(f) Disease, when showing discoloration, or when more than slightly affecting the appearance, or the processing or edible quality.

(g) Insects, when worms or worm frass are present, or when there is more than slight infestation by other insects.

(8) "Diameter" means the greatest thickness of the stem measured at a point 6 inches from the top of the head, except that stems which are less than 6 inches in length shall be measured at the base of the stem.

(9) "Fairly compact head" means that the individual head is fairly closely formed and not excessively spread and that the florets are not on the verge of opening and will not open in the ordinary process of blanching.

(10) "Serious damage" means any defect which materially affects the appearance, or the processing or edible quality of the head, or any portion of the stem within 5 inches from the top of the head. Any one of the following defects, or any combination of

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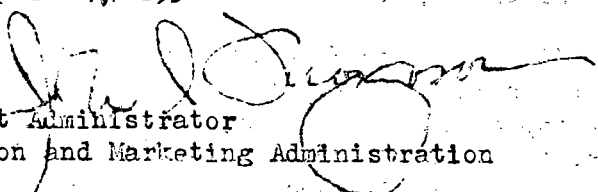
defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage:

(a) Discoloration, when the appearance of the individual unit is materially affected.

(b) Freezing, when causing discoloration which materially affects the appearance of the individual unit.

(c) Hollow stem or pithiness, when discolored, or when materially affecting the appearance of the individual unit. Units which show a ragged appearance or deep holes shall be considered as serious damage.

Issued April 16, 1951


Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR CABBAGE 1/
(Effective September 1, 1945)

GRADES

U. S. No. 1 shall consist of heads of cabbage of one variety or similar varietal characteristics (1) which are of reasonable solidity (2), and are not withered, puffy (3), or burst and which are free from soft rot, seedstems (4) and from damage (5) caused by discoloration, freezing, disease, insects or mechanical or other means. Stems shall be cut so that they do not extend more than one-half inch beyond the point of attachment of the outermost leaves.

Unless otherwise specified, each head shall be well trimmed (6). However, cabbage which has fairly good green color and is specified as "U. S. No. 1 Green," and red cabbage which is specified as "U. S. No. 1 New Red" need be only fairly well trimmed (7).

In order to allow for variations, other than excess number of wrapper leaves (8), incident to proper grading and handling, not more than a total of 10 percent, by weight, of the heads in any lot may fail to meet the requirements of this grade, but not more than one-fifth of this amount, or 2 percent, shall be allowed for soft decay. In addition, not more than 10 percent, by weight, may not meet the requirements as to number of wrapper leaves (8).
(See Application of Tolerances.)

U. S. Commercial shall consist of heads of cabbage which meet the requirements for U. S. No. 1 grade except for the increased tolerance for defects specified below, and except that the heads shall be reasonably firm (9).

Unless otherwise specified, each head shall be well trimmed (6). However, cabbage which has fairly good green color and is specified as "U. S. Commercial" 1/ This is a reissue of U. S. Standards for Cabbage (effective September 1, 1945) formerly issued by the Office of Marketing Services. No change is made in the text of the standards.

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Green," and red cabbage which is specified as "U.S. Commercial New Red" need be only fairly well trimmed (7).

In order to allow for variations, other than excess number of wrapper leaves (8), incident to proper grading and handling, not more than a total of 25 percent, by weight, of the heads in any lot may fail to meet the requirements of this grade, but not more than two-fifths of this amount, or a total of 10 percent, shall be allowed for defects causing serious damage (10), but not more than 2 percent shall be allowed for soft decay. In addition, not more than 10 percent, by weight, may not meet the requirements as to number of wrapper leavers (8). (See Application of Tolerances.)

Unclassified shall consist of cabbage which has 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.

SIZE

The minimum size or minimum and maximum sizes may be specified in connection with the grades as "U. S. No. 1, 1 pound min.," or "U. S. No. 1, 2 to 4 pounds," or any lot may be classified as Small, Medium, Large, Small to Medium, or Medium to Large in accordance with the facts.

<u>SMALL</u>	<u>MEDIUM</u>	<u>LARGE</u>
Pointed under 1-1/2 lbs.	1-1/2 to 3 lbs.	Over 3 lbs.
Danish)		
and) " 2	1 lbs. 2 to 5 lbs.	Over 5 lbs.
Domestic)		

In order to allow for variations incident to proper sizing, not more than a total of 15 percent, by weight, of the heads in any lot may vary from the size specifications, but not more than 10 percent may be either above or below the size specified. This tolerance is in addition to the tolerance for grade defects. (See Application of Tolerances.)

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APPLICATION OF TOLERANCES

The contents of individual containers in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified:

When a tolerance is 10 percent or more, individual containers in any lot shall have not more than one and one-half times the tolerance specified, except that at least one defective and one off-sized cabbage may be permitted in a container.

When a tolerance is less than 10 percent, individual containers in any lot shall have not more than double the tolerance specified, except that at least one defective and one off-sized cabbage may be permitted in a container.

DEFINITIONS OF TERMS

As used in these Standards:

1. "Similar varietal characteristics" means that the cabbage in each container shall have the same general characteristics.
2. "Reasonable solidity" means fairly firm for pointed type cabbage and southern Domestic type cabbage. Northern Domestic type cabbage and Danish or Hollander type cabbage shall be firm. "Reasonable solidity" as applied to Savoy cabbage means not soft or puffy; Savoy type cabbage is characteristically loosely formed and rather light in weight.
3. "Puffy" means that the heads are very light in weight in comparison to size, or have excessive air spaces in the central portion. They normally feel firm at time of harvesting but often soften quickly. They are known as "Ballonn Heads" in certain sections.
4. "Seedstems" means those heads which have seed stalks showing or in which the formation of seed stalks has plainly begun.

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5. "Damage" means any injury or defect which materially affects the appearance, or the edible or shipping quality. Worm injury on the outer head leaves or wrapper leaves which materially affects the appearance of the head, or worm holes which extend deeply into the compact portion of the head shall be considered as damaged.

6. "Well trimmed" means that the head shall have not more than four wrapper leaves.

7. "Fairly well trimmed" means that the head shall have not more than seven wrapper leaves.

8. "Wrapper leaves" means leaves which do not enfold the head fairly tightly more than two-thirds the distance from the base to the top.

9. "Reasonably firm" means that the head is not soft and is of reasonable weight for its size but may have considerable open spaces between the leaves in the lower portion of the head.

10. "Serious damage" means any injury or defect which seriously affects the appearance, or the edible or shipping quality. Cabbage which is affected by soft rot or which is seriously puffy, badly burst, or seriously injured by seedstems, discoloration, freezing, disease, insects, mechanical or other means shall be considered as seriously damaged. Worm injury on the outer head leaves or wrapper leaves which seriously affects the appearance of the heads, or worm holes which seriously affect the compact portion of the head shall be regarded as serious damage.

Issued August 18, 1945
Reissued April 17, 1948

Acting Assistant Administrator
Production and Marketing Administration

**UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**

**UNITED STATES STANDARDS
for
BUNCHED CARROTS**

**WASHINGTON, D.C.
September 18, 1954**

UNITED STATES STANDARDS FOR BUNCHED CARROTS¹

(19 F.R. 5202)

Effective September 18, 1954

GRADES	
Sec.	
51.2455	U. S. No. 1.
51.2456	U. S. Commercial.
UNCLASSIFIED	
51.2457	Unclassified.
APPLICATION OF TOLERANCES	
51.2458	Application of tolerances.
LENGTH OF TOPS	
51.2459	Length of tops.
STANDARD BUNCHES	
51.2460	Standard bunches.
DEFINITIONS	
51.2461	Similar varietal characteristics.
51.2462	Firm.
51.2463	Fairly clean.
51.2464	Fairly well colored.
51.2465	Fairly smooth.
51.2466	Well formed.
51.2467	Damage.
51.2468	Fresh.
51.2469	Full tops.
51.2470	Diameter.
51.2471	Serious damage.

AUTHORITY: §§ 51.2455 to 51.2471 issued under sec. 205, 60 Stat. 1090, 7 U. S. C. 1624.

GRADES

§ 51.2455 U. S. No. 1. "U. S. No. 1" consists of carrots of similar varietal characteristics the roots of which are firm, fairly clean, fairly well colored, fairly smooth, well formed, and which are free from soft rot, and free from damage caused by freezing, growth cracks, sunburn, pithiness, woodiness, internal discoloration, oil spray, dry rot, other disease, insects or mechanical or other means. Bunches shall have tops which are fresh and free from decay and free from damage caused by freezing, seed-stems, yellowing or other discoloration, disease, insects or mechanical or other means. Unless otherwise specified, the bunches shall have full tops and the length of tops shall be not more than 20 inches. (See § 51.2459.)

¹Packing of the product in conformity with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(a) *Size.* Unless otherwise specified, the diameter of each carrot shall be not less than three-fourths inch.

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

(1) *For defects of roots.* 10 percent, by count, for carrot roots in any lot which fail to meet the requirements of the grade, other than for size: *Provided*, That not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage, including therein not more than one percent for carrot roots affected by soft rot;

(2) *For defects of tops.* 10 percent, by count, for bunches in any lot which fail to meet the requirements of the grade, including therein not more than 5 percent for decay;

(3) *For off-length tops.* 25 percent, by count, for bunches in any lot which have tops longer than the specified length; and,

(4) *For off-size roots.* 5 percent, by count, for carrot roots in any lot which are smaller than the specified minimum diameter, and 10 percent, by count, for carrot roots which are larger than any specified maximum diameter.

§ 51.2456 U. S. Commercial. "U. S. Commercial" consists of carrots which meet the requirements of U. S. No. 1 except for the increased tolerance for defects of the roots specified below:

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

(1) *For defects of roots.* 20 percent, by count, for carrot roots in any lot which fail to meet the requirements of the grade, other than for size: *Provided*, That not more than one-half of this amount, or 10 percent, shall be allowed for defects causing serious damage, including therein not more than 1 percent for carrot roots affected by soft rot;

(2) *For defects of tops.* 10 percent, by count, for bunches in any lot which fail to meet the requirements of the grade, including therein not more than 5 percent for decay;

(3) *For off-length tops.* 25 percent, by count, for bunches in any lot which have tops longer than the specified length; and,

(4) *For off-size roots.* 5 percent, by count, for carrot roots in any lot which are smaller than the specified minimum diameter, and 10 percent, by count, for carrot roots which are larger than any specified maximum diameter.

UNCLASSIFIED

§ 51.2457 *Unclassified.* "Unclassified" consists of carrots 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

§ 51.2458 *Application of tolerances.* (a) The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations, provided 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 shall have not more than one and one-half times the tolerance specified, except that at least one defective and one off-size specimen may be permitted in a package; and,

(2) For a tolerance of less than 10 percent, individual packages in any lot shall have not more than double the tolerance specified, except that at least one defective and one off-size specimen may be permitted in a package.

LENGTH OF TOPS

§ 51.2459 *Length of tops.* In addition to the statement of grade, the length of tops may be specified in accordance with the following length classifications:

Short	Medium	Long	Extra long
Under 12 inches.	12 to 16 inches, inclusive.	Over 16 to 20 inches, inclusive.	Over 20 inches.

STANDARD BUNCHES

§ 51.2460 *Standard bunches.* (a) When specified as "standard bunches" the carrots shall meet the following requirements:

(1) Each bunch of carrots including tops, shall weigh not less than 1 pound and contain at least 4 carrots;

(2) When the diameter of the smallest carrot in the bunch is less than 1¼ inches, not over one-fourth inch variation in the size of carrots in the bunch shall be permitted;

(3) When the diameter of the smallest carrot in the bunch is 1¼ to 1½ inches, inclusive, not over three-eighths inch variation in the size of carrots in the bunch shall be permitted; and,

(4) When the diameter of the smallest carrot in the bunch is larger than 1½ inches, not over one-half inch variation in the size of carrots in the bunch shall be permitted.

(b) In order to allow for variations incident to proper bunching not more than 10 percent, by count, of the bunches may fail to meet the requirements for "standard bunches."

DEFINITIONS

§ 51.2461 *Similar varietal characteristics.* "Similar varietal characteristics" means that the carrots in any lot are of the same general type. For example, carrots with a short, but blunt growth, like the Oxheart variety, shall not be mixed with long or half-long carrots, like the Emperor or Danvers varieties.

§ 51.2462 *Firm.* "Firm" means that the carrot is not soft, flabby or shriveled.

§ 51.2463 *Fairly clean.* "Fairly clean" means that the individual carrot is reasonably free from dirt, stain or other foreign matter and that the general appearance of the carrots in the lot is not more than slightly affected.

§ 51.2464 *Fairly well colored.* "Fairly well colored" means that the carrot has an orange, orange red, or orange scarlet color, but not a pale orange or distinct yellow color.

§ 51.2465 *Fairly smooth.* "Fairly smooth" means that the carrot is not rough, ridged, or covered with secondary rootlets to the extent that the appearance is materially affected.

§ 51.2466 *Well formed.* "Well formed" means that the carrot is not forked, or misshapen to the extent that the appearance is more than slightly affected.

§ 51.2467 *Damage.* "Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual carrot root, or the general appearance of the carrot roots in the container, or causes a loss of more than 3 percent, by weight, in the ordinary preparation for use, or which materially affects the appearance or shipping quality of the tops. 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) Growth cracks which are not shallow or not smooth, or which materially affect the appearance of the carrot;

(b) Sunburn which causes a loss of more than 3 percent, by weight, in the ordinary preparation for use, except that superficial light green color at the stem end which does not materially affect the appearance of the root shall be permitted; and,

(c) Yellowing or other discoloration or injury to the tops when the appearance of the bunch is materially affected. The appearance of the individual bunch shall be considered materially affected when the tops are trimmed to the extent that only a relatively few leaves remain. The appearance of bunches with tops having slight discoloration such as yellowing, browning or other abnormal color affecting a few leaflets shall not be considered materially affected if the tops as a whole show a predominantly normal green color.

§ 51.2468 *Fresh*. "Fresh" means that the tops are not badly wilted.

§ 51.2469 *Full tops*. "Full tops" means that the leafstems have not been cut back, but dried or damaged leaves or leafstems may have been removed.

§ 51.2470 *Diameter*. "Diameter" means the greatest dimension of the root measured at right angles to the longitudinal axis.

§ 51.2471 *Serious damage*. "Serious damage" means any defect which seriously affects the appearance, or the edible or shipping quality of the individual carrot or the general appearance of the carrots in the container, or causes a loss of more than 20 percent, by weight, in the ordinary preparation for use.

The United States Standards for Bunched Carrots contained in this subpart shall become effective 30 days after publication hereof in the *FEDERAL REGISTER*, and will thereupon supersede the United States Standards for Bunched Carrots which have been in effect since July 15, 1945.

Dated August 12, 1954.

[SEAL] ROY W. LENNARTSON,
Deputy Administrator,
Marketing Services.

[F. R. Doc. 54-6407; Filed, Aug. 17, 1954;
8:53 a. m.]

**UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**

**UNITED STATES STANDARDS
for
CARROTS WITH SHORT TRIMMED TOPS**

**WASHINGTON, D.C.
September 18, 1954**

**UNITED STATES STANDARDS FOR
CARROTS WITH SHORT TRIMMED TOPS¹
(19 F.R. 5203)
Effective September 18, 1954**

GRADES	
Sec.	
51.2485	U. S. No. 1.
51.2486	U. S. Commercial.
UNCLASSIFIED	
51.2487	Unclassified.
APPLICATION OF TOLERANCES	
51.2488	Application of tolerances.
STANDARD SIZING	
51.2489	Standard sizing.
DEFINITIONS	
Sec.	
51.2490	Similar varietal characteristics.
51.2491	Firm.
51.2492	Fairly clean.
51.2493	Fairly well colored.
51.2494	Fairly smooth.
51.2495	Well formed.
51.2496	Damage.
51.2497	Diameter.
51.2498	Serious damage.

AUTHORITY: §§ 51.2485 to 51.2498 issued under sec. 205, 60 Stat. 1090, 7 U. S. C. 1624.

GRADES
§ 51.2485 *U. S. No. 1*. "U. S. No. 1" consists of carrots of similar varietal characteristics the roots of which are firm, fairly clean, fairly well colored, fairly smooth, well formed, and which are free from soft rot and free from damage caused by freezing, growth cracks, sunburn, pithiness, woodiness, internal discoloration, oil spray, dry rot, other disease, insects or mechanical or other means. The carrots shall have leafstems which are free from decay and free from damage caused by freezing, seedstems, yellowing or other discoloration, disease, insects or mechanical or other means. The leafstems shall be cut back to not more than 4 inches in length.

(a) *Size*. Unless otherwise specified, the diameter of each carrot shall be not less than three-fourths inch.

¹ Packing of the product in conformity with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

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

(1) *For defects of roots*. 10 percent, by count, for carrot roots in any lot which fail to meet the requirements of the grade, other than for size: *Provided*, That not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage, including therein not more than 1 percent for carrot roots affected by soft rot;

(2) *For defects of leafstems*. 10 percent, by count, for carrots in any lot which have leafstems which fail to meet the requirements of the grade, including therein not more than 5 percent for leafstems affected by decay;

(3) *For off-size roots*. 5 percent, by count, for carrot roots in any lot which are smaller than the specified minimum diameter, and 10 percent, by count, for carrot roots which are larger than any specified maximum diameter; and,

(4) *For off-length leafstems*. 10 percent, by count, for carrots in any lot which have leafstems longer than the specified maximum length.

§ 51.2486 *U. S. Commercial*. "U. S. Commercial" consists of carrots which meet the requirements of U. S. No. 1 except for the increased tolerance for defects of the roots specified below:

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

(1) *For defects of roots*. 20 percent, by count, for carrot roots in any lot which fail to meet the requirements of the grade, other than for size: *Provided*, That not more than one-half of this amount, or 10 percent, shall be allowed for defects causing serious damage, including therein not more than 1 percent for carrot roots affected by soft rot;

(2) *For defects of leafstems*. 10 percent, by count, for carrots in any lot which have leafstems which fail to meet the requirements of the grade, including therein not more than 5 percent for leafstems affected by decay;

(3) *For off-size roots.* 5 percent, by count, for carrot roots in any lot which are smaller than the specified minimum diameter and 10 percent, by count, for carrot roots which are larger than any specified maximum diameter; and,

(4) *For off-length leafstems.* 10 percent, by count, for carrots in any lot which have leafstems longer than the specified maximum length.

UNCLASSIFIED

§ 51.2487 *Unclassified.* "Unclassified" consists of carrots 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

§ 51.2488 *Application of tolerances.* (a) The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified for the grade:

(1) For packages which contain more than 5 pounds and a tolerance of 10 percent or more is provided, individual packages in any lot shall have not more than one and one-half times the tolerance specified. For packages which contain more than 5 pounds and a tolerance of less than 10 percent is provided, individual packages in any lot shall have not more than double the tolerance specified except that at least one defective specimen shall be permitted in a package; and,

(2) For packages which contain 5 pounds or less, individual packages in any lot are not restricted as to the percentage of defects: *Provided*, That not more than one carrot which is frozen or affected by soft rot may be permitted in any package.

STANDARD SIZING

§ 51.2489 *Standard sizing.* (a) Carrots in packages of 2 pounds or less may be certified as "Standard Sizing", provided the variation in diameter of the carrots in any individual package is not more than three-eighths inch and the variation in length is not more than 2½ inches.

(b) Not more than 20 percent of the packages in any lot may contain carrots which fail to meet the requirements for "Standard Sizing".

DEFINITIONS

§ 51.2490 *Similar varietal characteristics.* "Similar varietal characteristics" means that the carrots in any lot are of the same general type. For example, carrots with a short, but blunt growth, like the Oxheart variety, shall not be mixed with long or half-long carrots, like the Emperor or Danvers varieties.

§ 51.2491 *Firm.* "Firm" means that the carrot is not soft, flabby or shriveled.

§ 51.2492 *Fairly clean.* "Fairly clean" means that the individual carrot is reasonably free from dirt, stain or other foreign matter and that the general appearance of the carrots in the lot is not more than slightly affected.

§ 51.2493 *Fairly well colored.* "Fairly well colored" means that the carrot has an orange, orange red, or orange scarlet color, but not a pale orange or distinct yellow color.

§ 51.2494 *Fairly smooth.* "Fairly smooth" means that the carrot is not rough, ridged, or covered with secondary rootlets to the extent that the appearance is materially affected.

§ 51.2495 *Well formed.* "Well formed" means that the carrot is not forked, or misshapen to the extent that the appearance is more than slightly affected.

§ 51.2496 *Damage.* "Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the individual carrot root or the general appearance of the carrot roots in the container, or causes a loss of more than 3 percent, by weight, in the ordinary preparation for use, or which materially affects the appearance or shipping quality of the leafstems. 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) Growth cracks which are not shallow or not smooth, or which materially affect the appearance of the carrot;

(b) Sunburn which causes a loss of more than 3 percent, by weight, in the ordinary preparation for use, except that superficial light green color at the stem end which does not materially affect the appearance of the root shall be permitted; and,

(c) Yellowing or other discoloration or injury to the leafstems when the appearance of the leafstems is materially affected.

§ 51.2497 *Diameter*. "Diameter" means the greatest dimension of the root measured at right angles to the longitudinal axis.

§ 51.2498 *Serious damage*. "Serious damage" means any defect which seriously affects the appearance, or the edible or shipping quality of the individual carrot or the general appearance of the carrots in the container, or causes a loss of more than 20 percent, by weight, in the ordinary preparation for use.

The United States Standards for Carrots with Short Trimmed Tops contained in this subpart shall become effective 30 days after publication hereof in the FEDERAL REGISTER, and will thereupon supersede the United States Standards for Carrots with Short Trimmed Tops which have been in effect since July 15, 1945.

Dated: AUGUST 12, 1954.

[SEAL] ROY W. LENNARTSON,
Deputy Administrator,
Marketing Services.

[F. R. Doc. 54-6408; Filed, Aug. 17, 1954;
8:53 a. m.]

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR CAULIFLOWER 1/

(Effective December 14, 1952)

GRADES 2/

U. S. No. 1 consists of compact (1) heads of cauliflower which are not discolored (2), or over-mature (3), and which are free from soft or wet decay and are free from damage (4) caused by wilting, fuzziness (4a), riciness (4b), enlarged bracts (4c), bruises, hollow stems, dirt or other foreign matter, disease (4d), insects, or mechanical or other means. Unless otherwise specified, the heads shall be not less than 4 inches in diameter (5). Jacket leaves shall be fresh, green, and free from damage (4) caused by disease and free from serious damage (6) by any other cause. Unless otherwise specified, jacket leaves shall be well trimmed (7).

In order to allow for variations, other than for size, incident to proper grading and handling, not more than a total of 10 percent, by count, of the cauliflower in any lot may fail to meet the requirements of this grade but not more than one-tenth of this amount, or 1 percent, may be affected by soft rot or wet decay affecting the curd. In addition not more than 5 percent, by count, of the heads in any lot may be smaller than the specified minimum size.

Unclassified consists of cauliflower which has not been classified in accordance with the foregoing grade. 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.

APPLICATION OF TOLERANCES

The contents of individual packages in the lot, based on sample inspection, are

- 1/ These standards (17 F.R. 11137) supersede U. S. Standards for Cauliflower which were effective May 27, 1948.
- 2/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

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subject to the following limitations: Provided, That the averages for the entire lot are within the tolerances specified for the grade.

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, except that when the package contains 15 specimens or less, individual packages may contain not more than double the tolerance specified.

For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified, except that at least one defective and two off-sized specimens may be permitted in any package.

DEFINITIONS

As used in these standards:

(1) "Compact" means that the flower clusters are closely united and the head feels solid.

(2) "Discolored" means that the head is of some abnormal color.

(3) "Over-mature" means a stage of growth which is beyond that of a compact, properly developed head. An over-mature head usually is loose or open and ordinarily is turning yellow.

(4) "Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the curd, or any disease which materially affects the appearance, or the shipping quality of the jacket leaves. 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) Fuzziness which gives the head a distinctly fuzzy appearance on more than one-half of the head;

(b) Riciness, when the appearance of the head is materially injured by a very abnormal rough or granular surface on the curd;

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(c) Enlarged bracts, when the appearance of the head is materially injured by leaves (bracts) growing up through and extending above the curd; and,

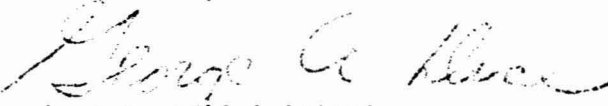
(d) Mold which causes the flesh of the curd to disintegrate or which exceeds $\frac{3}{8}$ inch in diameter in the aggregate, or any single spot of mold which exceeds $\frac{1}{8}$ inch in diameter.

(5) "Diameter" means the average diameter of the head exclusive of the jacket leaves.

(6) "Serious damage" means any injury to the jacket leaves which seriously affects their appearance.

(7) "Well trimmed" means that the jacket leaves shall be limited to the number and length necessary to protect the head. No jacket leaves are required on heads which are individually wrapped, or packed with cushions, partitions or other means which protect the head from bruising.

Issued December 9, 1952



Acting Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

UNITED STATES STANDARDS
for
GREEN CORN

WASHINGTON, D.C.
MAY 18, 1954

UNITED STATES STANDARDS FOR GREEN CORN

(19 F.R. 2221)

Effective May 18, 1954

Sec. GRADES

- 51.835 U. S. Fancy.
 51.836 U. S. No. 1.
 51.837 U. S. No. 2.

UNCLASSIFIED

- 51.838 Unclassified.

TOLERANCES

- 51.839 Tolerances.

COUNT

- 51.840 Requirements as to count.

APPLICATION OF TOLERANCES

- 51.841 Application of tolerances.

DEFINITIONS

- 51.842 Similar varietal characteristics.
 51.843 Well trimmed.
 51.844 Well developed.
 51.845 Insect injury.
 51.846 Injury.
 51.847 Fairly well filled.
 51.848 Plump and milky.
 51.849 Well covered.
 51.850 Fresh.
 51.851 Damage.
 51.852 Fairly well covered.
 51.853 Properly clipped.
 51.854 Fairly well trimmed.
 51.855 Fairly well developed.
 51.856 Serious damage.
 51.857 Poorly filled.

AUTHORITY: §§ 51.835 to 51.857 issued under sec. 205, 60 Stat. 1090, Pub. Law 156, 83d Cong.; 7 U. S. C. 1624.

GRADES

§ 51.835 *U. S. Fancy.* U. S. Fancy consists of ears of green corn of similar varietal characteristics which are well trimmed, well developed, and which are free from smut, decay, worms, or insect injury, and free from injury caused by rust, discoloration, birds, other disease or mechanical or other means. Cobs shall be fairly well filled with plump and milky kernels and well covered with fresh husks. The length of each cob shall be not less than 6 inches and the ears shall not be clipped. (See § 51.839.)

¹ Packing of the product in conformity with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 51.836 *U. S. No. 1.* U. S. No. 1 consists of ears of green corn of similar varietal characteristics which are well trimmed, well developed, and which are free from smut and decay and free from injury caused by rust and free from damage caused by discoloration, birds, worms, other insects, other disease or mechanical or other means. Cobs shall be fairly well filled with plump and milky kernels and fairly well covered with fresh husks. Each ear may be clipped but each clipped ear shall be properly clipped. Unless otherwise specified, the length of each cob, clipped or unclipped, shall be not less than 5 inches. (See § 51.839.)

§ 51.837 *U. S. No. 2.* U. S. No. 2 consists of ears of green corn of similar varietal characteristics which are fairly well trimmed, fairly well developed and which are free from smut and decay and free from serious damage caused by birds, worms, other insects, other disease or mechanical or other means. Cobs shall not be poorly filled and kernels shall be plump and milky and fairly well covered with fresh husks. Each ear may be clipped but each clipped ear shall be properly clipped. Unless otherwise specified, the length of each cob, clipped or unclipped, shall be not less than 4 inches. (See § 51.839.)

UNCLASSIFIED

§ 51.838 *Unclassified.* Unclassified consists of ears of green corn which have not been classified in accordance with any 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.

TOLERANCES

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

(1) *For defects.* 10 percent, by count, in any lot for ears of corn which fail to meet the requirements of the grade, including therein not more than 2 percent for decay; and,

(2) *For off-size.* 5 percent, by count, in any lot for ears of corn which fail to meet the requirements as to length of cob.

COUNT

§ 51.840 *Requirements as to count.* The number of ears of corn in any package may be specified by count or in terms of dozens or half dozens. Variation from the number specified shall be permitted as follows: *Provided*, That the average for the lot is not less than the number specified nor more than two ears greater than the number specified:

Specified number per package:	Variation permitted in individual packages
60 ears or less-----	3 ears under count, 5 ears over count.
More than 60 ears--	4 ears under count, 6 ears over count.

APPLICATION OF TOLERANCES

§ 51.841 *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:

(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, except that at least one defective and one off-size specimen may be permitted in any package; and,

(2) For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified, except that at least one defective and one off-size specimen may be permitted in any package.

DEFINITIONS

§ 51.842 *Similar varietal characteristics.* "Similar varietal characteristics" means that the ears in any package have similar kernel color and character of growth. Ears of field corn and sweet corn, or white and yellow corn, shall not be mixed in the package.

§ 51.843 *Well trimmed.* "Well trimmed" means that the ears are practically free from loose husks and that the shank shall be not more than 6 inches in length and not extend more than one inch beyond the point of attachment of the outside husk.

§ 51.844 *Well developed.* "Well developed" means that the ears are fairly straight and are not stunted. Nubbins are not well developed ears.

§ 51.845 *Insect injury.* "Insect injury" means that insect frass is present, or there is visible evidence of insect injury.

§ 51.846 *Injury.* "Injury" means any defect which more than slightly affects the appearance, or the edible or shipping quality of the ear. 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 injury:

(a) Rust when the aggregate area on the husk exceeds one square inch, or when the rust extends deeper than 2 layers of husks;

(b) Discoloration caused by frost or spray burn, or similar types of discoloration when affecting an aggregate area of more than 3 square inches on the husk, or when exceeding an aggregate area of 25 percent of the surface of all blades attached to the husk; and,

(c) Mechanical injury when more than 4 kernels are crushed or broken.

§ 51.847 *Fairly well filled.* "Fairly well filled" means that the rows of kernels show fairly uniform development, and that the appearance and quality of the edible portion of the ear are not materially affected by poorly developed rows. When the ear has not been clipped, not more than one-fourth of the length of the cob may have poorly developed or missing kernels at the tip. When the ear has been clipped, it shall have practically no poorly developed kernels at the tip of the cob. Missing or poorly developed kernels on other parts of the ear shall not aggregate more than one square inch on a cob 6 inches in length, and a proportionally greater area shall be permitted on a longer cob and a proportionally lesser area on a shorter cob.

§ 51.848 *Plump and milky.* "Plump and milky" means that the kernels are well developed and the contents have a milky or creamy consistency.

§ 51.849 *Well covered.* "Well covered" means that the husk enclosing the ear is tight and undisturbed, except that a slight opening may have been made at the tip: *Provided*, That the disturbed part has been properly replaced so that the appearance of the ear is not more than slightly affected.

§ 51.850 *Fresh.* "Fresh" means that the husks have fairly good green color and are not badly wilted.

§ 51.851 Damage. "Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the ear. 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) Discoloration caused by frost or spray burn, or similar types of discoloration when affecting an aggregate area of more than 5 square inches on the husk, or when exceeding an aggregate area of 50 percent of the surface of all blades attached to the husk;

(b) Worm injury on unclipped ears when extending more than 1½ inches from the tip on an ear 6 inches in length (proportionately greater or lesser amounts permitted on longer or shorter ears, respectively), or when affecting the kernels on other parts of the ear, or any worm injury on clipped ears; and,

(c) Mechanical damage when more than 8 kernels are crushed or broken.

§ 51.852 Fairly well covered. "Fairly well covered" means that the husk enclosing the ear is fairly tight and undisturbed except that an opening may have been made at the tip: *Provided*, That the disturbed part has been properly replaced so that the appearance of the ear is not materially affected.

§ 51.853 Properly clipped. "Properly clipped" means that either the end of the cob, or the end of the cob and husk have been neatly removed approximately at a right angle to the longitudinal axis.

§ 51.854 Fairly well trimmed. "Fairly well trimmed" means that the appearance of the individual ear of corn is not seriously affected by loose husks and that the shank shall not be more than 6 inches in length and not extend more than 2 inches beyond the point of attachment of the outside husk.

§ 51.855 Fairly well developed. "Fairly well developed" means that the ears are not stunted to the extent that the appearance is seriously affected.

§ 51.856 Serious damage. "Serious damage" means any defect which seriously affects the appearance, or the edible or shipping quality of the ear. The following defect, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage:

(a) Worm injury on unclipped ears when extending more than 2 inches from the tip on an ear 6 inches in length (proportionately greater or lesser amounts permitted on longer or shorter ears, respectively), or when affecting more than 4 kernels on other parts of the cob, or any worm injury on clipped ears extending more than one-fourth inch from the tip.

§ 51.857 Poorly filled. "Poorly filled" means, on unclipped ears, that the edible quality or appearance is affected to a greater extent than that of an ear 6 inches in length which has one-third of the cob at the tip end and an aggregate area 1½ inches square on other portions of the ear with undeveloped kernels or open spaces; and means, on clipped ears, that the edible quality or appearance is affected to a greater extent than that of an ear 6 inches in length which has one inch at the tip end and an aggregate area 1½ inches square on other portions of the ear with undeveloped kernels or open spaces.

The United States Standards for Green Corn contained in this subpart shall become effective 30 days after publication hereof in the *FEDERAL REGISTER* and will thereupon supersede the United States Standards for Green Corn which have been in effect since August 3, 1950. (18 F. R. 7100).

Dated: April 14, 1954.

[SEAL] ROY W. LENNARTSON,
Deputy Administrator,
Marketing Services.

[F. R. Doc. 54-2915; Filed, Apr. 16, 1954;
8:52 a. m.]

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR CUCUMBERS 1/
(Effective November 13, 1953)

GRADES 2/

U. S. Fancy consists of cucumbers which are well colored (1), well formed (2), not overgrown (3) and which are fresh, firm, and free from decay, sunscald and from injury caused by scars (4) and from damage (5) caused by yellowing, sunburn, dirt or other foreign material, freezing, mosaic or other disease, insects, mechanical or other means (5). (See Tolerances)

The maximum diameter (6) of each cucumber shall be not more than 2-3/8 inches and the length of each cucumber shall be not less than six inches. (See Tolerances)

U. S. No. 1 consists of cucumbers which are fairly well colored (7), fairly well formed (8), not overgrown (3) and which are fresh, firm, and free from decay, sunscald and from damage (5) caused by scars (5a), yellowing, sunburn, dirt or other foreign material, freezing, mosaic or other disease, insects, mechanical or other means (5). (See Tolerances)

Unless otherwise specified, the maximum diameter (6) of each cucumber shall be not more than 2-3/8 inches and the length of each cucumber shall be not less than 6 inches. (See Tolerances)

U. S. No. 1 Small consists of cucumbers which meet all requirements for the U. S. No. 1 grade except for size. The diameter (6) of each cucumber shall be not less than 1-1/2 inches or larger than 2 inches. There are no requirements for length. (See Tolerances)

1/ These standards (18 F.R. 6523) supersede U. S. Standards for Slicing Cucumbers which were effective February 15, 1941.

2/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

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U. S. No. 1 Large consists of cucumbers which meet all requirements for the U. S. No. 1 grade except for size. The minimum diameter of each cucumber shall be not less than 2-1/4 inches and unless otherwise specified, the length of each cucumber shall be not less than 6 inches. There are no requirements for maximum diameter or maximum length. (See Tolerances)

U. S. No. 2 consists of cucumbers which are moderately colored (9), not badly deformed (10), not overgrown (3) and which are fresh, firm, free from decay and free from damage (5) caused by freezing, sunscald and from serious damage (11) caused by scarring, yellowing, sunburn, dirt or other foreign material, mosaic or other disease, insects, mechanical or other means (5). (See Tolerances)

Unless otherwise specified, the maximum diameter (6) of each cucumber shall be not more than 2-3/8 inches and the length of each cucumber shall be not less than 5 inches. (See Tolerances)

UNCLASSIFIED

Unclassified consists of cucumbers which have not been classified in accordance with any 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.

TOLERANCES

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

For defects. 10 percent, by count, in any lot, for cucumbers which fail to meet the requirements of the grade, including therein not more than 1 percent for decay; and,

For off-size. 10 percent, by count, in any lot, for cucumbers which fail to meet the length and diameter requirements, including therein not more than one-half thereof, or 5 percent, for cucumbers which fail to meet the requirements for minimum diameter, and not more than one-half thereof, or 5 percent, for cucumbers which fail to meet the requirements for maximum diameter.

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APPLICATION OF TOLERANCES

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:

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, except that when the package contains 15 specimens or less, individual packages may contain not more than double the tolerance specified; and,

For a tolerance of less than 10 percent individual packages in any lot may contain not more than double the tolerance specified, except that at least one defective and one off-size specimen may be permitted in any package.

DEFINITIONS

As used in these standards:

(1) "Well colored" means that not less than three-fourths of the surface of the cucumber is of a medium green or darker color, and that at least a light green color extends to the blossom end on one side of the cucumber.

(2) "Well formed" means that the cucumber is practically straight and not more than very slightly constricted or more than moderately tapered or pointed. (See sketches)

(3) "Overgrown" means that the cucumber has developed beyond the best stage for slicing. It usually yields to slight pressure of the thumb. The seeds are tough and fibrous, and the pulp in the seed cavity is usually watery or jelly-like. In more advanced cases, pithy streaks may be found in the flesh of the cucumber.

(4) "Injury caused by scars" means scars which aggregate more than the area of a circle $\frac{3}{8}$ inch in diameter on a cucumber 6 inches in length. Larger cucumbers may have greater areas, provided that such scars do not affect the appearance of the cucumber to a greater extent than that caused by scars which are permitted on a 6 inch cucumber.

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(5) "Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the cucumbers. The following defect, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

(a) Scars when aggregating more than the area of a circle $5/8$ inch in diameter on a cucumber 6 inches in length. Smaller cucumbers shall have lesser areas of scars and larger cucumbers may have greater areas, provided that such scars do not affect the appearance of the cucumbers to a greater extent than that caused by scars which are permitted on a 6 inch cucumber.

(6) "Diameter" means the greatest dimension of the cucumber measured at right angles to the longitudinal axis, exclusive of "warts".

(7) "Fairly well colored" means that not less than two-thirds of the surface of the cucumber is of a medium green or darker color, and that at least a light green color extends to within one-half inch of the blossom end. White color shall be permitted over the blossom end of the cucumber.


(8) "Fairly well formed" means that the cucumber may be moderately curved but not deeply constricted, not extremely tapered or pointed and not otherwise misshapen. (See sketches)

(9) "Moderately colored" means that at least one-half of the surface of the cucumber is of a light green or darker color.

(10) "Badly deformed" means that the cucumber is so badly curved, constricted, tapered or otherwise so badly misshapen that the appearance is seriously affected. (See sketches)

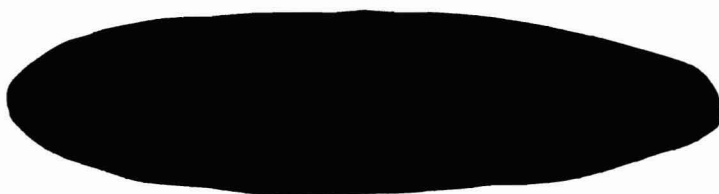
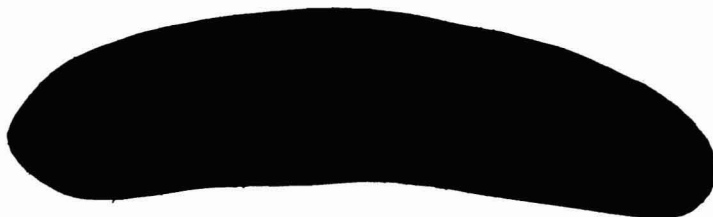
(11) "Serious damage" means any defect which seriously affects the appearance, or the edible or shipping quality of the cucumbers

Issued October 20, 1953


Assistant Administrator
Production and Marketing Administration

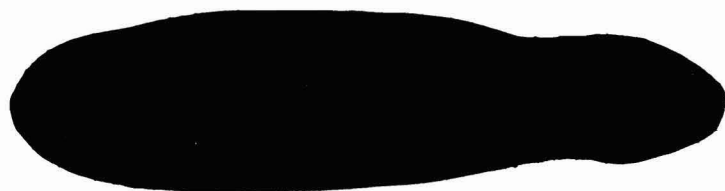
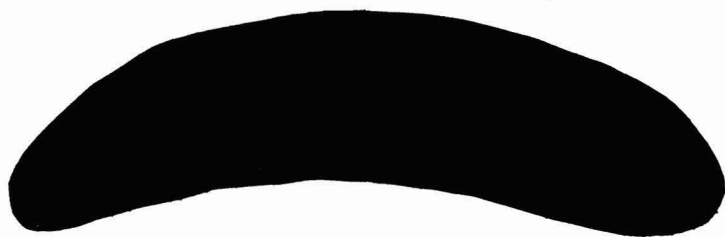
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MINIMUM SHAPES PERMISSIBLE IN U. S. FANCY GRADE
(About 1/3 actual size)



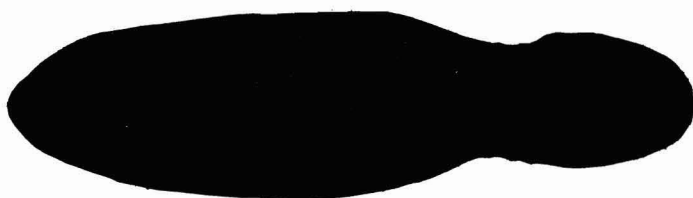
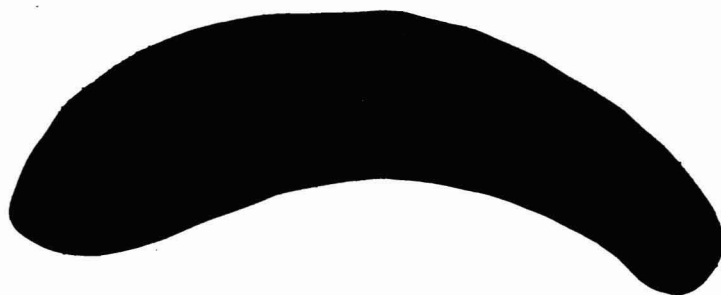
- 6 -

MINIMUM SHAPES PERMISSIBLE IN U. S. NO. 1 GRADE
(About 1/3 actual size)



- 7 -

MINIMUM SHAPES PERMISSIBLE IN U. S. NO. 2 GRADE
(About 1/3 actual size)



UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR CANTALOUPS
(Effective June 8, 1950)

GRADES 1/

U. S. No. 1 shall consist of cantaloups of one type (1) which are well formed (2), well netted (3), mature (4) but not overripe, soft, or wilted; and which are free from sunscald and decay, and free from damage (5) caused by aphid honey dew (5a), bruises, cracks (5b), loose seeds, dirt, disease, hail (5c), insects, scars (5d), sunburn (5e), or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of 10 percent, by count, of the cantaloups in any lot may fail to meet the requirements of this grade, but not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage (6), including not more than 1 percent for cantaloups affected by soft rot.

U. S. Commercial shall consist of cantaloups which meet the requirements of U. S. No. 1 grade except that the cantaloups need be only fairly well netted (7) and except for the increased tolerance for defects specified below.

In order to allow for variations incident to proper grading and handling, not more than a total of 20 percent, by count, of the cantaloups in any lot may fail to meet the requirements of this grade, but not more than one-fourth of this amount, or 5 percent, shall be allowed for defects causing serious damage (6), including not more than 1 percent for cantaloups affected by soft rot.

Unclassified shall consist of cantaloups 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 definite grade has been applied to the lot.

1/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

- 2 -

APPLICATION OF TOLERANCES TO INDIVIDUAL PACKAGES

The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified for the grade:

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, except that when the package contains 15 specimens or less, individual packages may contain not more than double the tolerance specified.

For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified, provided at least one specimen which does not meet the requirements shall be allowed in any one package.

DEFINITIONS

1. "One type" means that the cantaloups in any container are similar in shape and color of flesh.
2. "Well formed" means that the cantaloup has the shape characteristic of the variety.
3. "Well netted" means that the cantaloup has good netting characteristic of the variety.
4. "Mature" means that the cantaloup has reached the stage of maturity which will insure the proper completion of the normal ripening process.
5. "Damage" means any injury or defect which materially affects the appearance, or edible or shipping quality of the cantaloup. 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:

- 3 -

(a) Aphis honey dew, when more than slightly sticky, or when showing discoloration which more than slightly affects the appearance of the cantaloup.

(b) Cracks or wounds, when unhealed or deep, or when materially affecting the appearance of the cantaloup. Slight healed cracks around the ends or in the sutures of the cantaloup shall not be considered as damage.

(c) Hail injury, when unhealed or deep, or when materially affecting the appearance of the cantaloup.

(d) Scars which are healed, shallow, smooth, and light colored and aggregate more than 1-1/2 inches in diameter. Healed scars which are deep, rough or dark colored are considered as damage if their appearance is more objectionable than the amount of healed, shallow, smooth, and light colored scars permitted.

(e) Sunburn, when the appearance of the cantaloup is materially affected by dark yellow or brownish discoloration, or when it causes the rind to be flattened, thin or hard.

6. "Serious damage" means any injury or defect which seriously affects the appearance, or edible or shipping quality of the cantaloup. Cantaloups which are overripe, wilted, immature or have unhealed cracks shall be considered as being seriously damaged.

7. "Fairly well netted" means that the cantaloup has fairly good netting characteristic of the variety.

Issued May 9, 1950



Acting Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR NORTHERN GROWN ONIONS*
(Effective July 31, 1944)

INTRODUCTION

The tolerances for the standards are on a container basis. However, not to exceed 10 percent of the individual packages 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 and provided further, that decay in any one package shall in no case exceed three times the tolerance.

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.

For a tolerance of less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified, provided at least one specimen which does not meet the requirements shall be allowed in any one package.

GRADES

U. S. No. 1 shall consist of onions of similar varietal characteristics which are mature (1), fairly firm (2), fairly well shaped (3), free from decay, doubles (4), bottlenecks (5), scallions (6), and from damage (7) caused by seedstems (7a), splits (7b), tops (7c), roots, sunscald (7d), sunburn, sprouting, freezing, peeling (7e), cracked fleshy scales (7f), dirt or staining (7g), foreign matter, disease, insects, or mechanical or other means (7). UNLESS OTHERWISE SPECIFIED, the minimum size shall be 1-1/2 inches in diameter (8), and in the case of yellow, brown, or red onions, 40 percent or more, and in the case of white onions, 30 percent or more, by weight, of the onions in any lot shall be 2 inches or larger in diameter (8).**

*This is a reissue of U. S. Standards for Northern Grown Onions (effective July 31, 1944) formerly issued by the Office of Distribution. No change is made in the text of the Standards.

**Any lot of onions quoted as being of size smaller than 1 1/2 inches minimum such as "U. S. No. 1, 1 1/4 inches min." is not required to meet the percentages which shall be 2 inches or larger as specified in the U. S. No. 1 grade.

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In order to allow for variations other than size incident to proper grading and handling, not more than 10 percent, by weight, of the onions in any container may be damaged by peeling, and not more than 5 percent may be below the remaining requirements of this grade but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay. In addition, not more than 5 percent, by weight, may be below the minimum size specified, and not more than 15 percent may be above any specified maximum size. No part of any tolerance shall be allowed to reduce the percentage of onions which shall be 2 inches or larger in diameter or any other specified size or larger, but individual containers may have not more than 25 percent less than the percentage specified, provided that the entire lot averages within the percentage specified.

U. S. Commercial shall consist of onions of similar varietal characteristics which are mature (1), not soft or spongy, not badly misshapen (9), free from decay, doubles (4), bottlenecks (5), scallions (6), and from damage (7), caused by seedstems (7a), tops (7c), roots, sunscald (7d), sunburn, cracked fleshy scales (7f), sprouting, freezing, disease, insects, or mechanical or other means (7), and from serious damage (10) by splits (10a), dirt or staining (10b), or other foreign matter. UNLESS OTHERWISE SPECIFIED, the minimum size shall be 1-1/2 inches in diameter (8).

In order to allow for variations other than size, incident to proper grading and handling, not more than 5 percent, by weight, of the onions in any container may be below the requirements of this grade, but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay. In addition, not more than 5 percent, by weight, may be below the size specified, and not more than 15 percent may be above any specified maximum size.

U. S. No. 1 Boilers shall consist of onions which meet all requirements for U. S. No. 1 grade except for size. The size of onions of this grade shall be not less than 1 inch nor more than 1-7/8 inches in diameter (8).

In order to allow for variations other than size, incident to proper grading and handling, not more than 10 percent, by weight, of the onions in any container

- 3 -

may be damaged by peeling, and not more than 5 percent, by weight, of the onions may be below the remaining requirements of this grade, but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay. In addition, not more than 5 percent, by weight, may be below the minimum size, and not more than 15 percent may be above the maximum size specified for this grade.

U. S. No. 1 Picklers shall consist of onions which meet all requirements for U. S. No. 1 grade except for size. The maximum size of onions of this grade shall be not more than one inch in diameter (8).

In order to allow for variations other than size, incident to proper grading and handling, not more than 10 percent, by weight, of the onions in any container may be damaged by peeling, and not more than 5 percent, by weight, of the onions may be below the remaining requirements of this grade, but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay. In addition, not more than 15 percent, by weight, may be above the maximum size specified for this grade.

U. S. No. 2 shall consist of onions of one type (11), which are mature (1), not soft or spongy, free from decay, scallions (6), and from serious damage (10) caused by seedstems (10c), sunscald, sprouting (10d), freezing, disease, insects, mechanical or other means (10). UNLESS OTHERWISE SPECIFIED, the minimum size shall be 1-1/2 inches in diameter (8).

In order to allow for variations other than size, incident to proper grading and handling, not more than 5 percent, by weight, of the onions in any container may be below the requirements of this grade, but not more than two-fifths of this amount, or 2 percent, may be allowed for onions affected by decay. In addition, not more than 5 percent, by weight, may be below the minimum size specified, and not more than 15 percent may be above any specified maximum size.

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Unclassified shall consist of onions which have not been classified in accordance with any 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 definite grade has been applied to the lot.

DEFINITIONS OF TERMS

As used in these standards:

1. "Mature" means dry and well cured. Mid-season onions which are not customarily held in storage shall be considered mature when harvested in accordance with good commercial practice at a stage which will not result in the onions becoming soft or spongy.
2. "Fairly firm" means that the onion may yield slightly to moderate pressure but is not appreciably soft or spongy.
3. "Fairly well shaped" means having the shape characteristic of the variety, but slightly off-type, slightly elongated or slightly misshapen onions shall be admitted to U. S. No. 1 grade.
4. "Doubles" means onions which have developed more than one distinct bulb joined only at the base.
5. "Bottlenecks" are onions which have abnormally thick necks with only fairly well developed bulbs.
6. "Scallions" are onions which have thick necks and relatively small and poorly developed bulbs.
7. "Damage" means any defect which materially affects the appearance of the lot or the edible or shipping quality of the individual onions. Any one of the following defects shall be considered as damage:

- 5 -

(a) Seedstems which are tough or woody, or which are more than 1/4 inch in diameter.

(b) "Damage by Splits." A split is an onion which has more than one distinct bulb at least partially covered by an outer scale. Such an onion, if not well cured, shall be considered damaged when not completely covered by more than one outer scale. If well cured, such an onion shall not be regarded as damaged if practically covered by an outer scale, unless the distinct bulbs cause the onion to be materially misshapen.

(c) "Damage by tops." In considering this factor the appearance of the lot of onions as a whole should be considered. While all onions should be trimmed to less than 2 inches, there are often some that have been cut with tops a little longer. However, any lot of onions having more than 20 percent of onions with tops over 2 inches in length shall be considered as damaged. This percentage is given only as a guide and it may be reduced if the tops are very long. For example, not more than 10 percent of onions may have tops longer than 5 inches.

(d) Sunscald which affects the shipping or market quality. Slight dry scald which is not readily apparent without peeling the onion shall not be considered as damage.

(e) "Peeled" onions when more than one-half of the thin papery skin is missing, leaving the larger portion of the fleshy outer scale unprotected. Such onions are sometimes referred to as "bald" or "skinned" onions, or "peelers."

(f) Cracked fleshy scale, when one or more of the fleshy scales are cracked. Such onions are undesirable because of the possibility of decay organisms entering the injured tissue. Cracking of the thin papery skins shall not be regarded as damaged.

(g) "Damage by dirt or staining." Any lot of onions which is dirty or materially stained shall be considered as damaged. In this connection the number

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of stained onions permitted before the lot is considered damaged, will depend upon the degree of staining on individual onions. As a guide, a lot of yellow, brown, or red onions should be considered damaged if the appearance is affected to a greater extent than the presence of 15 percent appreciably stained plus 5 percent badly stained onions. A lot of white onions should be considered damaged if the appearance is affected to a greater extent than the presence of 10 percent appreciably stained plus 5 percent badly stained onions. If a lot of onions contains the percentages of appreciably stained and badly stained onions mentioned above and most of the remainder of the onions in the lot shows staining of a lesser degree, but approaches that which is considered appreciably stained, then the lot shall be considered damaged by staining. If a lot of onions contains slightly more than the percentages of appreciably stained onions mentioned above and most of the remainder of the onions in the lot shows none or very little staining, then the lot should be considered as not damaged by staining. Onions with adhering or caked dirt which affects the appearance to the same extent as appreciably stained or badly stained onions shall be scored in combination with any stained onions that may be present in the lot.

8. "Diameter" means the greatest dimension at right angles to a straight line running from the stem to the root.

9. "Badly misshapen" means that the onion is so elongated or misshapen that its appearance is seriously affected.

10. "Serious damage" means any defect which seriously affects the appearance of the lot or the edible or shipping quality of the individual onions. Any one of the following defects shall be considered as serious damage:

(a) Splits, when the condition causes the onion to be badly misshapen.

(b) Any lot of onions that is seriously damaged by dirt including badly stained onions. A

- 7 -

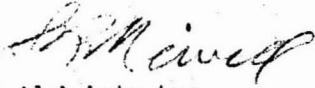
lot of onions shall be considered seriously damaged by staining when more than 25 percent of the lot is badly stained. Onions with adhering or caked dirt which affects the appearance to the same extent as badly stained onions shall be scored in combination with any badly stained onions that may be present in the lot.

(c) Seedstems which are more than one-half inch in diameter.

(d) Sprouting, when the sprouts are more than one-half inch in length or the onion has become soft or spongy.

11. "One type" means that the onions are of the same color.

Issued July 17, 1944
Reissued February 16, 1948



Acting Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR PEACHES 1/

(Effective June 15, 1952)

GRADES 2/

U. S. Fancy consists of peaches of one variety which are mature (1) but not soft or overripe, well formed (2) and which are free from decay, bacterial spot, cuts which are not healed, growth cracks, hail injury, scab, scale, split pits, worms, worm holes, leaf or limb rub injury (3); and free from damage (4) caused by bruises, dirt or other foreign material, other disease, insects or mechanical or other means (4).

In addition to the above requirements, each peach shall have not less than one-third of its surface showing blushed, pink or red color.

In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the peaches in any lot may fail to meet the requirements of this grade other than for color, but not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage (5), and not more than one-fifth of this amount, or 1 percent, shall be allowed for decay at shipping point: Provided, That an additional tolerance of 2 percent shall be allowed for soft, overripe, or decayed peaches en route or at destination. In addition, not more than 10 percent, by count, of the peaches in any lot may be below the specified color requirement.

U. S. Extra No. 1. Any lot of peaches may be designated "U. S. Extra No. 1" when the peaches meet the requirements of U. S. No. 1 grade: Provided, That in addition to these requirements, 50 percent, by count, of the peaches in any lot shall have not less than one-fourth of the surface showing blushed, pink or red color.

1/ These standards supersede U. S. Standards for peaches which were effective April 22, 1933.

2/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

Agriculture - Washington, D. C.

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In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the peaches in any lot may fail to meet the requirements of U. S. No. 1 grade, but not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage (5), and not more than one-fifth of this amount, or 1 percent, shall be allowed for decay at shipping point: Provided, That an additional tolerance of 2 percent shall be allowed for soft, overripe or decayed peaches en route or at destination. No part of any tolerance shall be used to reduce for the lot as a whole the 50 percent of peaches required to have not less than one-fourth of the surface showing blushed, pink or red color, but individual packages may contain not less than 40 percent of peaches having this amount of color: Provided, That the entire lot averages not less than 50 percent.

U. S. No. 1 consists of peaches of one variety which are mature (1) but not soft or overripe, well formed (2), and which are free from decay, growth cracks, cuts which are not healed, worms, worm holes, and free from damage (4) caused by bruises, dirt or other foreign material, bacterial spot (4a), scab (4b), scale (4c), hail injury (4d), leaf or limb rubs (4e), split pits (4f), other disease, insects or mechanical or other means (4).

In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the peaches in any lot may fail to meet the requirements of this grade, but not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage (5), and not more than one-fifth of this amount, or 1 percent, shall be allowed for decay at shipping point: Provided, That an additional tolerance of 2 percent shall be allowed for soft, overripe, or decayed peaches en route or at destination.

U. S. No. 2 consists of peaches of one variety which are mature (1) but not soft or overripe, not badly misshapen (6), and which are free from decay, cuts which are not healed, worms, worm holes, and free from serious damage (5) caused by bruises, dirt or other foreign material, bacterial spot (5a), scab (5b), scale (5c), growth cracks (5d), hail injury (5e), leaf or limb rubs (5f), split pits (5g), other disease, insects, or mechanical or other means (5).

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In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the peaches in any lot may fail to meet the requirements of this grade, but not more than one-tenth of this amount, or 1 percent, shall be allowed for decay at shipping point: Provided, That an additional tolerance of 2 percent shall be allowed for soft, overripe, or decayed peaches en route or at destination.

Unclassified consists of peaches which have not been classified in accordance with any 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 definite grade has been applied to the lot.

APPLICATION OF TOLERANCES TO INDIVIDUAL PACKAGES

The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified for the grade:

For packages which contain more than 10 pounds, and a tolerance of 10 percent or more is provided (as in the case of oversize, where a tolerance of 15 percent is provided), individual packages in any lot shall have not more than one and one-half times the tolerance specified. For packages which contain more than 10 pounds and a tolerance of less than 10 percent is provided, individual packages in any lot shall have not more than double the tolerance specified, except that at least one peach which is seriously damaged by insects or affected by decay may be permitted in any package.

For packages which contain 10 pounds or less, individual packages in any lot are not restricted as to the percentage of defects: Provided, That not more than one peach which is seriously damaged by insects or affected by decay may be permitted in any package.

SIZE REQUIREMENTS

The numerical count or the minimum diameter of the peaches packed in a closed container shall be indicated on the container.

When the numerical count is not shown the minimum diameter shall be plainly stamped, stenciled, or otherwise marked on the container in terms

- 4 -

of whole inches, whole and half inches, whole and quarter inches, or whole and eighth inches, as 2 inches minimum, 2-1/4 inches minimum, 1-7/8 inches minimum, in accordance with the facts. The minimum and maximum diameters may both be stated, as 1-7/8 to 2 inches, or 2 to 2-1/4 inches, in accordance with the facts.

"Diameter" means the shortest distance measured through the center of the peach at right angles to a line running from the stem to the blossom end.

In order to allow for variations incident to proper sizing, not more than 10 percent, by count, of peaches in any lot may be below the specified minimum size and not more than 15 percent may be above any specified maximum size.

STANDARD PACK

Each package shall be packed so that the peaches in the shown face shall be reasonably representative in size, color and quality of the contents of the package.

Baskets. Peaches packed in U. S. Standard bushel baskets, or half-bushel baskets shall be ring faced and tightly packed with sufficient bulge to prevent any appreciable movement of the peaches within the packages when lidded.

Boxes. Peaches packed in standard western boxes shall be reasonably uniform in size and arranged in the packages according to the approved and recognized methods. Each wrapped peach shall be fairly well enclosed by its individual wrapper. All packages shall be well filled and tightly packed but the contents shall not show excessive or unnecessary bruising because of over-filled packages. The number of peaches in the box shall not vary more than 4 from the number indicated on the box.

Peaches packed in other type boxes such as wire-bound boxes and fibre-board boxes may be place packed, or jumble packed faced, and all packs shall be well filled.

Peaches packed in boxes equipped with cell compartments or molded trays shall be of the proper size for the cells or the molds in which they are packed.

- 5 -

Peaches placed in individual paper cups and packed in boxes shall be in cups of the proper size for the peaches.

In order to allow for variations incident to proper packing, not more than 10 percent of the packages in any lot may not meet these requirements.

DEFINITIONS

As used in these standards:

(1) "Mature" means that the peach has reached the stage of growth which will insure a proper completion of the ripening process.

(2) "Well formed" means that the shape of the peach may be slightly irregular but not to the extent that its appearance is materially affected.

(3) "Leaf or limb rub injury" means that the scarring is not smooth, not light colored, or aggregates more than $1/4$ inch in diameter.

(4) "Damage" means any injury or defect which materially affects the appearance or the edible or shipping quality of the peach. Any one of the following defects, or any combination thereof, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

(a) Bacterial spot, when cracked, or when aggregating more than $3/8$ inch in diameter;

(b) Scab spots, when cracked, or when aggregating more than $3/8$ inch in diameter;

(c) Scale, when concentrated, or when scattered and aggregating more than $1/4$ inch in diameter;

(d) Hail injury which is unhealed, or deep, or when aggregating more than $1/4$ inch in diameter;

(e) Leaf or limb rubs, when not smooth, or when not light colored, or when aggregating more than $1/2$ inch in diameter;

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(f) Split pit, when causing any unhealed crack, or when causing any crack which is readily apparent, or when affecting shape to the extent that the fruit is not well formed.

(5) "Serious damage" means any injury or defect which seriously affects the appearance, or the edible or shipping quality of the peach. Any one of the following defects, or any combination thereof, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage:

(a) Bacterial spot, when any cracks are not well healed, or when aggregating more than $3/4$ inch in diameter;

(b) Scab spots, when cracked, or when healed and aggregating more than one inch in diameter;

(c) Scale, when aggregating more than $1/2$ inch in diameter;

(d) Growth cracks, when unhealed, or more than $1/2$ inch in length;

(e) Hail injury, when unhealed, or shallow hail injury when aggregating more than $3/4$ inch in diameter, or deep hail injury which seriously deforms the fruit or which aggregates more than $1/2$ inch in diameter;

(f) Leaf or limb rubs, when smooth and light colored and aggregating more than $1-1/2$ inches in diameter, or dark or slightly rough and barklike scars aggregating more than $3/4$ inch in diameter;

(g) Split pit, when causing any unhealed crack, or when healed and aggregating more than $1/2$ inch in length including any part of the crack which may be covered by the stem;

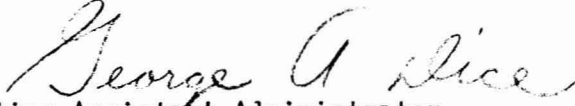
(h) Soft or overripe peaches;

(i) Wormy fruit or worm holes.

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(6) "Badly misshapen" means that the peach is so decidedly deformed that its appearance is seriously affected.

Issued May 20, 1952

A handwritten signature in cursive script, reading "George A. Slice". The signature is written in dark ink and is positioned above the typed name and title.

Acting Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR SWEET PEPPERS 1/
(Effective July 29, 1946)

GRADES 2/

U. S. Fancy shall consist of sweet peppers of similar varietal characteristics (1) which are green but not immature (2), which are well shaped (3), firm (5), and free from sunscald, freezing, decay and from any defect or injury that has penetrated through the fleshy wall, and from damage (6) caused by hail, scars, sunburn, disease, insects, or mechanical or other means. Unless otherwise specified, each pepper shall be not less than three and one-half inches in length (8) and not less than three inches in diameter (9). (See Red, Mixed Color or Mixed Types.)

In order to allow for variations, incident to proper grading and handling, not more than 10 percent, by count, of the peppers in any lot may fail to meet the size specifications. In addition, not more than a total of 10 percent, by count, may fail to meet the remaining requirements of this grade, but not more than 5 percent shall be allowed for peppers affected by sunscald, and not more than 2 percent shall be allowed for peppers affected by decay. (See Application of Tolerances.)

U. S. No. 1 shall consist of sweet peppers of similar varietal characteristics (1) which are green but not immature (2), which are firm (5) and free from sunscald and decay and from any defect or injury that has penetrated through the fleshy wall, and from damage (6) caused by freezing, hail, scars, sunburn, disease, insects, or mechanical or other means. Not less than 60 percent of the peppers in any lot shall be well shaped and the remainder shall be fairly well shaped (4). Unless otherwise specified, each pepper shall be not less than two and one-half inches in length (8), and not less than 2-1/2 inches in diameter (9). (See Red, Mixed Color, or Mixed Types.)

1/ These standards supersede the U. S. Standards For Sweet Peppers which were effective September 30, 1929.

2/ Numbers in parentheses following grade terms indicate where such terms are defined under "Definitions of Terms".

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In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the peppers in any lot may fail to meet the size specifications. In addition, not more than a total of 10 percent, by count, may fail to meet the remaining requirements of this grade, but not more than 5 percent shall be allowed for peppers affected by sunscald, and not more than 2 percent shall be allowed for peppers affected by decay. (See Application of Tolerances.)

U. S. No. 2 shall consist of sweet peppers of similar varietal characteristics (1) which are green but not immature (2), which are fairly well shaped (4), firm (5) and free from sunscald and decay and from any defect or injury that has penetrated through the fleshy wall, and from serious damage (7) caused by freezing, hail, scars, disease, insects, or mechanical or other means. (See Red, Mixed Color, or Mixed Types.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 percent, by count, of the peppers in any lot may fail to meet the requirements of this grade, but not more than 5 percent shall be allowed for peppers affected by sunscald and not more than 2 percent for peppers affected by decay. (See Application of Tolerances.)

Unclassified shall consist of sweet peppers which are not graded in conformity with any 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 definite grade has been applied to the lot.

Red, Mixed Color, or Mixed Types

Sweet peppers which conform to the requirements of the respective grades, except as to color or type, may be designated in accordance with the facts, as follows:

When uniformly red or turning red -
"U. S. Fancy Red," "U. S. No. 1 Red," or
"U. S. No. 2 Red." When mixed red and green

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peppers - "U. S. Fancy Mixed Color," "U. S. No. 1 Mixed Color," or "U. S. No. 2 Mixed Color."

When peppers do not have similar varietal characteristics - "U. S. Fancy Mixed Types," "U. S. No. 1 Mixed Types," or "U. S. No. 2 Mixed Types."

APPLICATION OF TOLERANCES

The contents of individual containers in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified:

When a tolerance is 10 percent, or more, individual containers in any lot shall have not more than one and one-half times the tolerance specified, except that at least one defective and one off-sized specimen may be permitted in any container.

When a tolerance is less than 10 percent, individual containers in any lot shall have not more than double the tolerance specified, except that at least one defective and one off-sized specimen may be permitted in any container.

DEFINITIONS OF TERMS

As used in these standards:

1. "Similar varietal characteristics" means that the peppers shall be alike as to general type; that is, thin walled peppers (so-called "soft types") shall not be mixed with those having thick meaty walls (so-called "hard types") and single pointed peppers shall not be mixed with those having more than one point. A mixture of peppers having two or more points shall be permitted.

2. "Immature" means that the seeds are not fully developed and that the pepper has not reached the stage of maturity which will insure a proper completion of the ripening process.

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3. "Well shaped" means that the pepper may be only slightly curved or slightly indented.

4. "Fairly well shaped" means that the pepper is indented or curved in form but is not badly misshapen. Badly misshapen means that the pepper is of the type commonly known as "button", or is decidedly crooked, constricted or otherwise so seriously deformed as to detract materially from the appearance of the pepper.

5. "Firm" means that the pepper is not soft, shriveled, limp, or pliable, although it may yield to slight pressure.

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

7. "Serious damage" means surface blemishes covering more than 15 percent of the surface of the pepper in the aggregate, or any injury which seriously affects the shipping quality of the pepper.

8. "Length" means the greatest over-all length of the pepper, exclusive of the stem, measured in a straight line.

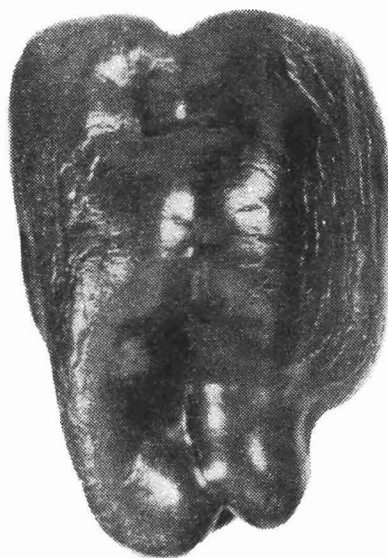
9. "Diameter" means the greatest dimension at right angles to the longitudinal axis.

Issued July 15, 1946
Reissued May 26, 1948

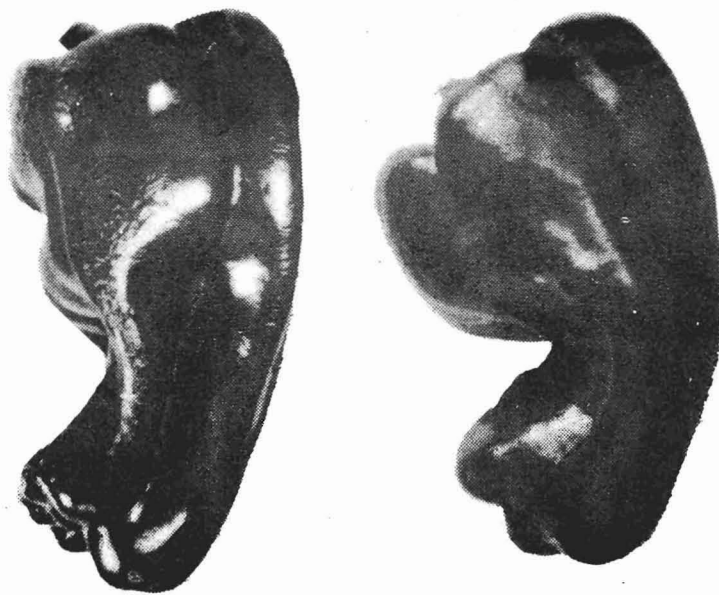


Acting Assistant Administrator
Production and Marketing Administration

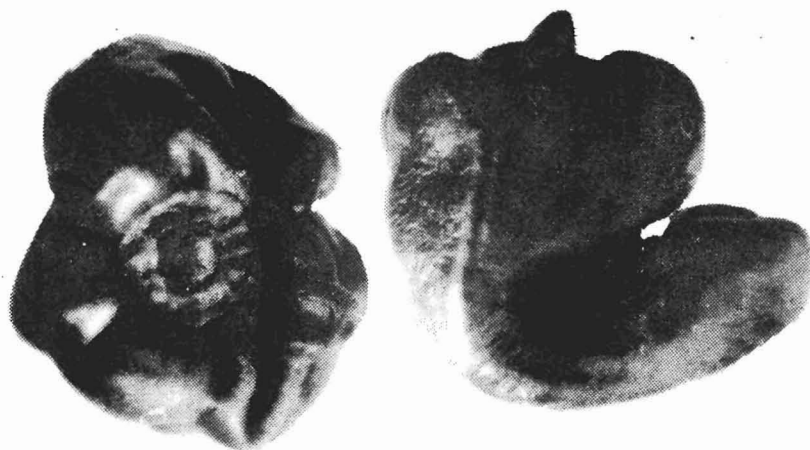
WELL SHAPED PEPPERS



FAIRLY WELL SHAPED PEPPERS



BADLY MISSHAPEN PEPPERS



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UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR FRESH PEAS 1/
(Effective June 1, 1942)

INTRODUCTION

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.

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

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

GRADES

U. S. No. 1 shall consist of pods of peas of similar varietal characteristics which are not over-mature 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.

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.

1/ This is a reissue of U. S. Standards for Fresh Peas (effective June 1, 1942), formerly issued by the Agricultural Marketing Administration. No change is made in the text of the Standards.

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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 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

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 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 OF TERMS

As used in these standards:

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

"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.

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

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

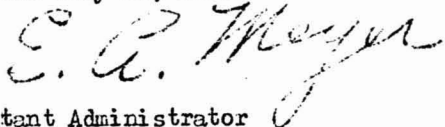
"Fairly well filled" means that more than one-half of the pod contains peas which are at least fairly well developed.

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

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

"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.

Issued April 25, 1942
Reissued July 19, 1946



Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

UNITED STATES STANDARDS FOR POTATOES 1/
(Effective June 1, 1949)

GENERAL

Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

All percentages shall be calculated on the basis of weight.

The tolerances for the standards are on a container basis. However, individual packages 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.

When the tolerance specified is 10 percent or more, individual packages in any lot may contain not more than one and one-half times the tolerance specified, except that at least one defective and one off-size specimen shall be permitted in a package.

When the tolerance specified is less than 10 percent, individual packages in any lot may contain not more than double the tolerance specified except that for frozen potatoes, or those affected by soft rot or wet breakdown, not more than one-tenth of the packages may contain more than double the tolerance but not more than four times the tolerance specified, and except that at least one defective and one off-sized specimen shall be permitted in a package.

GRADES

U. S. Fancy shall consist of potatoes of one variety or similar varietal characteristics which are firm, mature (1), bright (2), well shaped (3), not frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, shriveling, sprouting, soft rot or wet breakdown (4), hollow heart, and internal discoloration (5).

1/ These standards supersede the U. S. Standards for Potatoes, effective since June 1, 1942.

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and free from injury (6) caused by dirt or other foreign matter, sunburn, second growth, growth cracks, air cracks, cuts, external discoloration, scab, dry rot, rhizoctonia, other disease, wireworm, other insects or mechanical or other means (6).

The diameter (7) of each potato shall be not less than 2 inches.

For long varieties such as Burbank, Russet Burbank, Early Ohio, White Rose, or other similar varieties, not less than 40 percent of the potatoes in any lot shall be 6 ounces or more in weight.

For round or intermediate shaped varieties such as Irish Cobbler, Katahdin, Bliss Triumph, Green Mountain, or other similar varieties, not less than 60 percent of the potatoes in any lot shall be 2-1/4 inches or larger in diameter.

The size of the potatoes may be stated in terms of minimum diameter or minimum weight, or of range in diameter or weight, or of a certain percentage over a certain size, following the grade name, but in no case shall the potatoes be below the sizes specified for this grade. (See Tolerance for Size, p. 7)

Tolerance for defects. In order to allow for variations other than size, incident to proper grading and handling, not more than a total of 6 percent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than 3 percent shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight, and including not more than 1 percent for potatoes which are frozen, or affected by soft rot or wet breakdown.

U. S. Extra No. 1 shall consist of potatoes of one variety or similar varietal characteristics which are fairly well shaped (8), fairly clean (9), not frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet breakdown (4), and from damage (10) caused by sunburn, second growth (10a), growth cracks (10a), air cracks (10b),

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hollow heart, internal discoloration (5 and 10), external discoloration (10c), cuts, shriveling (10d), sprouting (10e), scab (10f and g), dry rot, rhizoctonia (10h), other disease (10), wireworm (10i), other insects or mechanical or other means (10). (See Skinning Classification, p. 7)

Unless otherwise specified, size of potatoes (See Size Classification and Tolerance for Size, pp. 6 and 7) shall be as follows:

The diameter (7) of each potato shall be not less than 1-7/8 inches.

For long varieties such as Burbank, Russet Burbank, Early Ohio, White Rose, or other similar varieties, not less than 60 percent of the potatoes in the lot shall be 6 ounces or larger, of which not less than one-half, or 30 percent, shall be 10 ounces or more in weight.

For round or intermediate shaped varieties, such as Irish Cobbler, Katahdin, Bliss Triumph, Green Mountain or other similar varieties, not less than 60 percent of the potatoes in the lot shall be 2-1/4 inches or larger, of which not less than one-half, or 30 percent, shall be 2-3/4 inches, or larger in diameter.

Tolerance for defects. In order to allow for variations other than size, hollow heart, and internal discoloration, incident to proper grading and handling, not more than a total of 6 percent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than 3 percent shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight, and including not more than 1 percent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than 5 percent may be damaged by hollow heart, and internal discoloration.

U. S. No. 1 shall consist of potatoes of one variety or similar varietal characteristics which are fairly well shaped (8), not frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet

breakdown (4), and from damage (10) caused by dirt (10j) or other foreign matter (10j), sunburn, second growth (10a), growth cracks (10a), air cracks (10b), hollow heart, internal discoloration (5 and 10), external discoloration (10c), cuts, shriveling (10d), sprouting (10e), scab (10f and g), dry rot, rhizoctonia (10h), other disease (10), wireworm (10i), other insects or mechanical or other means (10). (See Skinning Classification, p. 7)

Unless otherwise specified the diameter (7) of each potato shall be not less than 1-7/8 inches. (See Size Classification and Tolerance for Size, pp. 6 and 7)

Tolerance for defects. In order to allow for variations other than size, hollow heart, and internal discoloration, incident to proper grading and handling, not more than a total of 6 percent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than 3 percent shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight, and including not more than 1 percent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than 5 percent may be damaged by hollow heart and internal discoloration.

U. S. Commercial shall consist of potatoes which meet the requirements for U. S. No. 1 grade except that they shall be free from serious damage by dirt (11a) and except for the increased tolerance for defects specified below. (See Skinning Classification, p. 7)

Unless otherwise specified, the diameter (7) of each potato shall be not less than 1-7/8 inches. (See Size Classification and Tolerance for Size, pp. 6 and 7)

Tolerance for defects. In order to allow for variations other than size and sprouting, incident to proper grading and handling, not more than a total of 20 percent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than 5 percent may be seriously damaged by hollow heart and internal discoloration and not more than 6 percent may fail to meet the remaining requirements of U. S. No. 2 grade, but not more than one-half of this

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amount, or 3 percent, shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight and including not more than 1 percent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than 10 percent of the potatoes may have sprouts over 3/4 inch long, but which are not seriously damaged by shriveling, provided, that if all of the 20 percent tolerance is not used for other defects, the unused part of the tolerance may also be used for potatoes having sprouts over 3/4 inch long but which are not seriously damaged by shriveling.

U. S. No. 2 shall consist of potatoes of one variety or similar varietal characteristics which are not seriously misshapen or frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet breakdown (4), and from serious damage (11) caused by dirt (11a) or other foreign matter (11a), sunburn, second growth, growth cracks, air cracks, hollow heart, internal discoloration (5 and 11), external discoloration (11b), cuts (11c), shriveling (11d), scab (11e and f), dry rot, other disease, wireworm (11g), and other insects, or mechanical or other means (11). (See Skinning Classification, p. 7)

Unless otherwise specified the diameter (7) of each potato shall be not less than 1-1/2 inches. (See Size Classification and Tolerance for Size, pp. 6 and 7)

Tolerance for defects. In order to allow for variations other than size, hollow heart, and internal discoloration, incident to proper grading and handling, not more than a total of 6 percent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than 3 percent shall be allowed for potatoes affected by southern bacterial wilt, ring rot or late blight, and including not more than 1 percent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than 5 percent may be seriously damaged by hollow heart and internal discoloration.

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SIZE CLASSIFICATION FOR ALL GRADES EXCEPT

U. S. FANCY

When the potatoes are designated as "U. S. No. 1", "U. S. Commercial", or "U. S. No. 2", without specifying a size classification, it is understood that the potatoes meet the minimum size specified in the grade but that no definite percentage of the potatoes is required to be larger than this minimum size.

When potatoes meet the requirements of Size A or Size B as described below, the size classification may be specified in connection with any of the U. S. grades except U. S. Fancy, as: "U. S. No. 1, Size A"; "U. S. Extra No. 1, Size A"; "U. S. Commercial, Size B"; "U. S. No. 1, Size B"; "U. S. No. 2, Size A"; or "U. S. No. 2, Size B"; in accordance with the facts. When Size A or Size B is used in connection with the grade, it is not permissible to specify any smaller sizes than those specified under these designations.

Size A. - For long varieties such as Burbank, Russet Burbank, Early Ohio, White Rose, or other similar varieties, the diameter of each potato shall be not less than $1\frac{7}{8}$ inches and not less than 40 percent of the potatoes in the lot shall be 6 ounces or more in weight.

For round or intermediate shaped varieties such as Irish Cobbler, Katahdin, Bliss Triumph, Green Mountain, or other similar varieties, the diameter of each potato shall be not less than $1\frac{7}{8}$ inches and not less than 60 percent of the potatoes in the lot shall be $2\frac{1}{4}$ inches or larger in diameter.

Size B. - For all varieties the size shall be from $1\frac{1}{2}$ inches to not more than 2 inches in diameter.

Other sizes. - When any of the above size designations are not used in connection with U. S. Extra No. 1, U. S. No. 1, U. S. Commercial, or U. S. No. 2 grades, it is permissible to specify any other minimum size such as " $1\frac{1}{2}$ inches minimum",

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"2 inches minimum"; or both a minimum and a maximum size as "1-7/8 inches to 3 inches", "6 to 10 ounces"; or to specify a certain percentage over a certain size as "25 percent or more 2-1/4 inches and larger", "50 percent or more 5 ounces and larger".

Tolerance for size. In order to allow for variations incident to proper sizing, not more than 3 percent of the potatoes in any lot may fail to meet the specified minimum size except that a tolerance of 5 percent shall be allowed for potatoes packed to meet a minimum size of 2-1/4 inches or more in diameter, or 6 ounces or larger in weight. In addition, not more than 15 percent may fail to meet any specified maximum size.

When a percentage of the potatoes is specified to be of a certain size and larger, no part of any tolerance shall be used to reduce such a percentage for the lot as a whole, but individual containers may have not more than 15 percent less than the percentage required or specified, provided that the entire lot averages within the percentage specified. For example, a lot specified as 25 percent 2-1/2 inches and larger may have containers with not less than 10 percent 2-1/2 inches and larger provided the lot as a whole averages 25 percent 2-1/2 inches and larger.

SKINNING CLASSIFICATION

The following optional skinning classifications are provided as a basis for classifying lots of potatoes as to the degree of skinning.

"Practically no skinning" means that not more than 5 percent of the potatoes in any lot have more than one-tenth of the skin missing or "feathered".

"Slightly skinned" means that not more than 10 percent of the potatoes in any lot have more than one-fourth of the skin missing or "feathered".

"Moderately skinned" means that not more than 10 percent of the potatoes in any lot have more than one-half of the skin missing or "feathered".

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"Badly skinned" means that more than 10 percent of the potatoes in any lot have more than one-half of the skin missing or "feathered".

UNCLASSIFIED

Unclassified shall consist of potatoes which have not been classified in accordance with any 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 definite grade has been applied to the lot.

DEFINITIONS

As used in these standards:

(1) "Mature" means that the outer skin (epidermis) does not loosen or "feather" readily during ordinary handling and that practically no skin has been removed from the potatoes.

(2) "Bright" means practically free from dirt or other foreign matter, and that the outer skin (epidermis) has the attractive color normal for the variety.

(3) "Well shaped" means the normal shape for the variety and that the potato is not pointed, dumbbell-shaped, excessively elongated, or otherwise ill-formed.

(4) "Soft rot or wet breakdown" means any soft, mushy, or leaky condition of the tissue such as slimy soft rot, leak, or wet breakdown following freezing injury or sunscald.

(5) "Internal discoloration" means discoloration such as is caused by net necrosis or any other type of necrosis, stem-end browning, internal brown spot, or other similar types of discoloration not visible externally, except blackheart.

(6) "Injury" means any defect which more than slightly affects the edible or shipping quality, or the appearance of the individual potato or the general appearance of the potatoes in the container, or which cannot be removed without a loss of more than 2 percent of the total weight of the potato including peel covering defective area.

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(7) "Diameter" means the greatest dimension at right angles to the longitudinal axis. The long axis shall be used without regard to the position of the stem (rhizome).

(8) "Fairly well shaped" means that the appearance of the individual potato or the general appearance of the potatoes in the container is not materially injured by pointed, dumbbell-shaped or otherwise ill-formed potatoes.

(9) "Fairly clean" means that from the viewpoint of general appearance, the potatoes in the container are reasonably free from dirt or other foreign matter and that individual potatoes are not materially caked with dirt or materially stained.

(10) "Damage" means any injury or defect which materially injures the edible or shipping quality, or the appearance of the individual potato or the general appearance of the potatoes in the container, or which cannot be removed without a loss of more than 5 percent of the total weight of the potato including peel covering defective area. 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) Second growth or growth cracks which have developed to such an extent as to materially injure the appearance of the individual potato or the general appearance of the potatoes in the container.

(b) Air cracks which are deep, or shallow air cracks which materially injure the appearance of the individual potato or the general appearance of the potatoes in the container.

(c) External discoloration, when skinned areas on individual potatoes are materially affected by dark discoloration, or when the general appearance of the lot is materially affected by discoloration.

(d) Shriveling, when the potato is more than moderately shriveled, spongy or flabby.

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(e) Sprouting, when more than 10 percent of the potatoes have sprouts over three-fourths of an inch long.

(f) Surface scab which covers an area of more than 5 percent of the surface of the potato in the aggregate.

(g) Pitted scab which affects the appearance of the potato to a greater extent than the amount of surface scab permitted or causes a loss of more than 5 percent of the total weight of the potato including peel covering defective area.

(h) Rhizoctonia, when the general appearance of the potatoes in the container is materially injured or when individual potatoes are badly infected.

(i) Wireworm, grass root or similar injury, when any hole, on potatoes ranging in size from 6 to 8 ounces, is longer than $\frac{3}{4}$ inch or when the aggregate length of all holes is more than $1\frac{1}{4}$ inches. Smaller potatoes shall have lesser amounts and larger potatoes may have greater amounts, provided that the removal of the injury by proper trimming does not cause the appearance of such potatoes to be injured to a greater extent than that caused by the proper trimming of such injury permitted on a 6 to 8 ounce potato.

(j) Dirt, when the general appearance of the potatoes in the container is more than slightly dirty or stained, or when individual potatoes are badly caked with dirt or badly stained; or other foreign matter which materially affects the appearance of the potatoes.

(11) "Serious damage" means any injury or defect which seriously injures the edible or shipping quality, or the appearance of the individual potato or the general appearance of the potatoes in the container, or which cannot be removed without a loss of more than 10 percent of the total weight of the potato including peel covering defective area. 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 serious damage:

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(a) Dirt, when the general appearance of the potatoes in the container is seriously affected by tubers badly caked with dirt; or other foreign matter which seriously affects the appearance of the potatoes.

(b) External discoloration, when skinned areas on individual potatoes are seriously affected by very dark discoloration, or when the general appearance of the lot is seriously affected by discoloration.

(c) Fairly smooth cuts such as are made by the digger or by a knife to remove injury, when both ends are clipped, or when more than an estimated one-fourth of the potato is cut away, or, in the case of long varieties, when the remaining portion of the clipped potato weighs less than 6 ounces.

Irregular types of cuts which seriously affect the appearance of the individual potato, or which cannot be removed without a loss of more than 10 percent of the total weight of the potato including peel covering defective area.

(d) Shriveling, when the potato is excessively shriveled, spongy, or flabby.

(e) Surface scab which covers an area of more than 50 percent of the surface of the potato in the aggregate.

(f) Pitted scab which affects the appearance of the potato to a greater extent than the amount of surface scab permitted or causes a loss of more than 10 percent of the total weight of the potato including peel covering defective area.

(g) Wireworm, grass root or similar injury, when any hole, on potatoes ranging in size from 6 to 8 ounces, is longer than 1-1/4 inches or when the aggregate length of all holes is more than 2 inches. Smaller potatoes shall have lesser amounts and larger potatoes may have greater amounts, provided that the removal of the injury by proper trimming does not cause the appearance of such potatoes to be injured to a greater extent than that caused by the proper trimming of such injury permitted on a 6 to 8 ounce potato.

Issued April 18, 1949



Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

U. S. STANDARDS FOR FRESH SPINACH FOR CANNING (1931)

GRADES

U. S. No. 1 shall consist of spinach which is free from decay, grass, weeds, yellow leaves, roots, and worms, and from damage caused by mildew, seedstems, seedbuds, coarse stalks, wood, muck chips, insects, dirt, or other foreign material.

In order to allow for variations incident to proper handling, the following tolerances shall be permitted for grade defects:

For decay, grass, small weeds, and yellow leaves, not more than fifteen (15) pieces are permitted in a one hundred (100) ounce sample.

For damage by wood, muck chips, or other hard foreign material, no tolerance is permitted.

For roots, large weeds, and damage by mildew, seedstems, seedbuds, coarse stalks, insects, dirt or other foreign material, not more than five (5) ounces are permitted in a one hundred (100) ounce sample.

No tolerance is permitted for worms.

U. S. No. 2 shall consist of spinach which meets all the requirements of U. S. No. 1 grade except that the following tolerances shall be permitted for grade defects:

For decay, grass, small weeds, and yellow leaves, not more than forty (40) pieces are permitted in a one hundred (100) ounce sample.

For damage by wood, muck chips, or other hard foreign material, not more than one (1) piece over one-half inch in length is permitted in a one hundred (100) ounce sample.

For roots, large weeds, and damage by mildew, seedstems, seedbuds, coarse stalks, insects, dirt, or other foreign material, not more than ten (10) ounces are permitted in a

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one hundred (100) ounce sample.

No tolerance is permitted for worms.

U. S. No. 3 shall consist of spinach which is free from worms and from damage caused by mildew, decay or insects.

A tolerance of 25 percent, by weight, shall be permitted for spinach which fails to meet the requirements of this grade but no part of this tolerance shall be allowed for spinach which contains worms.

Unclassified shall consist of spinach which does not conform to the requirements of any of the foregoing grades.

Revised April 10, 1931.

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR FRESH TOMATOES 1/
(Effective September 14, 1953)

GRADES 2/

U. S. No. 1 consists of tomatoes of similar varietal characteristics (1) which are mature (2), but not overripe or soft, which are well developed (3), fairly well formed (4), fairly smooth (5), and which are free from decay and freezing injury, and free from damage (6) caused by dirt, bruises, cuts (6a), sunscald, sunburn, puffiness (6b), catfaces (6c), growth cracks (6d), scars (6e), disease, insects, hail or mechanical or other means (6).

Tolerances. In order to allow for variations incident to proper grading and handling the following tolerances shall be permitted:

At shipping point (or in shipments from Mexico when inspected at points of entry into the United States) not more than a total of 10 percent, by count, for tomatoes in any lot, which fail to meet the requirements of this grade: Provided, That not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage (7), and including in this latter amount not more than 1 percent for tomatoes which are soft or affected by decay; and,

En route or at destination, not more than a total of 15 percent, by count, for tomatoes in any lot which fail to meet the requirements of this grade: Provided, That included in this amount not more than the following percentages shall be allowed for the defects listed:

5 percent for tomatoes which are soft or affected by decay;

10 percent for tomatoes which are damaged by shoulder bruises or by discolored or sunken scars on any parts of the tomatoes; and,

1/ These standards (18 F.R. 4880) supersede U. S. Standards for Fresh Tomatoes which were effective December 5, 1949.

2/ Numbers and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

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10 percent for tomatoes otherwise defective, except that not more than one-half of this amount, or 5 percent, shall be allowed for defects causing serious damage.

U. S. Combination consists of a combination of U. S. No. 1 and U. S. No. 2 tomatoes: Provided, That at least 60 percent, by count, meet the requirements of U. S. No. 1 grade.

Tolerances. In order to allow for variations incident to proper grading and handling the following tolerances shall be permitted:

At shipping point (or in shipments from Mexico when inspected at points of entry into the United States) not more than a total of 10 percent, by count, for tomatoes in any lot, which fail to meet the requirements of the U. S. No. 2 grade: Provided, That not more than one-tenth of this amount, or 1 percent, shall be allowed for tomatoes which are soft or affected by decay; and,

En route or at destination, not more than a total of 15 percent, by count, for tomatoes in any lot, which fail to meet the requirements of the U. S. No. 2 grade: Provided, That included in this amount not more than the following percentages shall be allowed for the defects listed:

5 percent for tomatoes which are soft or affected by decay;

10 percent for tomatoes which are seriously damaged by shoulder bruises or by discolored or sunken scars on any parts of the tomatoes; and,

10 percent for tomatoes otherwise defective.

No part of any tolerance shall be allowed to reduce for the lot as a whole the percentage of U. S. No. 1 tomatoes required in the combination but individual containers shall have not less than 50 percent which meet the requirements of U. S. No. 1 grade: Provided, That the entire lot contains not less than 60 percent U. S. No. 1 grade.

U. S. No. 2 consists of tomatoes of similar varietal characteristics (1) which are mature (2),

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but not overripe or soft, which are not badly misshapen (8), and which are free from decay, unhealed cuts, freezing injury, and free from serious damage (7) caused by dirt, bruises, sunscald, sunburn, puffiness (7d), catfaces, growth cracks, scars, disease, insects (7e), hail or mechanical or other means (7).

Tolerances. In order to allow for variations incident to proper grading and handling the following tolerances shall be permitted:

At shipping point (or in shipments from Mexico when inspected at points of entry into the United States) not more than a total of 10 percent, by count, for tomatoes in any lot, which fail to meet the requirements of this grade: Provided, That not more than one-tenth of this amount, or 1 percent, shall be allowed for tomatoes which are soft or affected by decay; and,

In route or at destination, not more than a total of 15 percent, by count, for tomatoes in any lot, which fail to meet the requirements of this grade: Provided, That included in this amount not more than the following percentages shall be allowed for the defects listed:

5 percent for tomatoes which are soft or affected by decay;

10 percent for tomatoes which are seriously damaged by shoulder bruises or by discolored or sunken scars on any parts of the tomatoes; and,

10 percent for tomatoes otherwise defective.

Unclassified consists of tomatoes which have not been classified in accordance with any 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.

SIZE REQUIREMENTS

Tomatoes when packed in Los Angeles lugs, or when packed in other types of containers and

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the size is specified according to the size arrangements customarily used in Los Angeles lugs, shall be within the ranges of diameters specified below, except when designated as "Irregular sizing".

Los Angeles lug size arrangements 1/	Minimum diameter inches	Maximum diameter inches
4 x 4	3- 5/16	3-15/16
4 x 5	3	3-10/16
5 x 5	2-14/16	3- 6/16
5 x 6	2-11/16	3- 3/16
6 x 6	2- 8/16	2-14/16
6 x 7	2- 4/16	2-10/16
7 x 7	2	2- 6/16
7 x 8	1-14/16	2- 4/16

1/ Size arrangements not listed in the above table but which meet the diameter requirements for one of the above Los Angeles lug size arrangements may be certified as meeting Los Angeles lug size requirements for the specified size: Provided, That there shall not be a variation of more than 2 tomatoes in a layer between the two size arrangements, except that a variation of not more than 4 tomatoes in a layer shall be permitted in sizes smaller than 6 x 7. For example, a 4-4 x 6 offset pack has 24 tomatoes per layer and should be sized in accordance with the diameter requirements for 5 x 5 which has 25 tomatoes per layer. A 4-5 x 9 diagonal pack has 40 or 41 tomatoes per layer and should be sized in accordance with the requirements for 6 x 7 which has 42 tomatoes per layer.

In determining compliance with the above size arrangements the measurement for minimum diameter shall be the largest diameter of the tomato measured at right angles to a line from the stem end to the blossom end. The measurement for maximum diameter shall be the smallest dimension of the tomato determined by passing the tomato through a round opening in any position.

In lieu of specifying size according to the Los Angeles lug size arrangements, the size of tomatoes in any type of container may be specified in terms of minimum diameter or in terms of minimum and maximum diameters expressed in whole inches, or whole inches and not less than sixteenth inch fractions thereof, in accordance with the facts, without reference to Los Angeles lug size arrangements. Such minimum

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diameter, or minimum and maximum diameters, shall be the largest diameter of the tomato measured at right angles to a line from the stem end to the blossom end.

In order to allow for variations incident to proper sizing, not more than a total of 10 percent, by count, of the tomatoes in any lot may be smaller than the specified minimum diameter, or larger than the specified maximum diameter.

APPLICATION OF TOLERANCES

The contents of individual containers 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:

When a tolerance is 10 percent or more, individual containers in any lot shall have not more than one and one-half times the tolerance specified, except that at least one defective and one off-size specimen may be permitted in any container; and,

When a tolerance is less than 10 percent, individual containers in any lot shall have not more than double the tolerance specified, except that at least one defective and one off-size specimen may be permitted in any container.

U. S. STANDARD PACKS

"U. S. Standard Packs" apply only to tomatoes packed in Los Angeles lugs and shall be designated according to the arrangement in the top layer of the lug, as 5 x 5, 5 x 6, etc., in accordance with the facts. The tomatoes in all layers shall have a uniform type of arrangement, for example square, offset or diagonal except as provided in the description of U. S. Straight Pack. The tomatoes shall be fairly tightly packed and, unless otherwise specified, the net weight of the tomatoes in the lug shall be not less than 30 pounds. The following terms shall be used to describe U. S. Standard Packs in lugs:

"U. S. Straight Pack". When specified as "U. S. Straight Pack" the tomatoes shall meet

the size requirements for the Los Angeles lug size specified, and all layers in any lug shall have the same number of tomatoes: Provided, That when an offset or a diagonal arrangement of tomatoes is used, a variation of not more than one tomato shall be permitted in different layers. For example, in a 5 x 5 pack the tomatoes in each layer shall be packed 5 rows wide with 5 tomatoes in each row. In a 4-5 x 9 diagonal pack the tomatoes shall be packed alternately 4 x 5 to the row the short way of the lug with 9 such rows in the layer and with either 40 or 41 tomatoes in each layer. When designated as "U. S. Straight Square-Offset Pack" or "U. S. Straight Square-Diagonal Pack" the top layer shall be packed with a square arrangement and all lower layers with either an offset or a diagonal arrangement and there may be a variation of not more than one tomato between the top layer and any of the lower layers. Not more than one tomato shall be placed in a wrapper;

"U. S. Extra Row Pack". When specified as "U. S. Extra Row Pack" the tomatoes shall meet the size requirements for the Los Angeles lug size specified, and the lower layers shall not contain more than one additional row one way of the lug. For example, in a 5 x 5 pack, the tomatoes in the lower layers may be packed 5 x 6 but not 6 x 6 or 5 x 7. Not more than one tomato shall be placed in a wrapper;

"U. S. Bridge Pack". When specified as "U. S. Bridge Pack" the tomatoes shall meet the size requirements for the Los Angeles lug size specified, and a part of one additional layer of tomatoes shall be packed in the lug and the remaining tomatoes in the lower layers shall not contain more than one additional row one way of the lug than is contained in the top layer. Not more than one tomato shall be placed in a wrapper;

"U. S. Double Wrap Pack". When specified as "U. S. Double Wrap Pack" the tomatoes shall meet the size requirements for the Los Angeles lug size specified, and the tomatoes in the top layer shall be packed with not more than one tomato in a wrapper and the lower layer or layers shall be packed with not more than two tomatoes in a wrapper; and,

"U. S. Double Wrap Bridge Pack". When specified as "U. S. Double Wrap Bridge Pack" the tomatoes shall meet the size requirements for the Los Angeles lug size specified, and the tomatoes in the top layer shall be packed with not more than one tomato in a wrapper and the lower layer or layers shall be packed with not more than two tomatoes in a wrapper: Provided, That part of one additional layer which may have either one or two tomatoes in a wrapper shall be packed in the lug.

In order to allow for variations incident to proper packing, not more than 10 percent, by count, of the containers in any lot may not meet the requirements for Standard Pack: Provided, That when there are two or more size arrangements in any lot, not more than 20 percent of the lugs in any one size arrangement may not meet the requirements for Standard Pack: Provided further that the average for the lot does not exceed 10 percent.

"Irregular Pack". Lugs of tomatoes which are not packed in accordance with any of the foregoing methods of packing may be designated as "Irregular Pack".

DEFINITIONS

As used in these standards:

(1) "Similar varietal characteristics" means that the tomatoes are alike as to firmness of flesh and shade of color (for example, soft fleshed early maturing varieties are not mixed with firm fleshed midseason or late varieties, or bright red varieties mixed with varieties having a purplish tinge.)

(2) "Mature" means that in two or more seed cavities the contents have developed a jelly-like consistency and the seeds are well developed.

(3) "Well developed" means that the tomato shows normal growth. Tomatoes which are ridged and peaked at the stem end, contain dry tissue, and usually open spaces, are not considered well developed.

(4) "Fairly well formed" means that the

tomato is not decidedly kidney-shaped, lop-sided, elongated, angular or otherwise deformed.

(5) "Fairly smooth" means that the tomato is not conspicuously ridged or rough.

(6) "Damage" means any defect which materially affects the appearance, or the edible or shipping quality of the fruit. 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) Cuts which are not shallow, not well healed or more than $1/2$ inch in length;

(b) Puffy tomatoes. These tomatoes are usually angular and flat sided. They are damaged if the open space in one or more locules materially affects the appearance when the tomato is cut through the center at right angles to a line running from the stem to the blossom end;

(c) Catfaces. These are irregular, dark, leathery scars at the blossom end of the fruit. Such scars damage the tomato when they are rough or deep, or when channels extend into the locule, or when they are fairly smooth and the area exceeds that of a circle $1/2$ inch in diameter on a $2-1/2$ inch tomato. Smaller tomatoes shall have lesser areas of fairly smooth catfaces and larger tomatoes may have greater areas: Provided, That such catfaces do not affect the appearance of the tomatoes to a greater extent than that caused by fairly smooth catfaces which are permitted on a $2-1/2$ inch tomato;

(d) Growth cracks (ruptures or cracks radiating from or concentric to the stem scar) when not well healed, when materially affecting the appearance of the fruit or when any one radiating crack extends more than $1/2$ inch beyond the stem scar; and,

(e) Scars (except catfaces) when the aggregate area exceeds that of a circle $3/8$ inch in diameter on a tomato $2-1/2$ inches in diameter. Smaller tomatoes shall have lesser areas of scars and larger tomatoes may have greater areas: Provided, That such scars do not affect the appearance of the tomatoes

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to a greater extent than that caused by scars which are permitted on a 2-1/2 inch tomato.

(7) "Serious damage" means any defect which seriously affects the appearance, or the edible or shipping quality of the fruit. 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 serious damage:

(a) Tomatoes which are soft or affected by decay;

(b) Fresh holes or cuts, or any holes or cuts through the tomato wall;

(c) Tomatoes showing any effects of freezing;

(d) Puffiness if open space in two or more locules seriously affects the appearance when the tomato is cut through the center at right angles to a line running from stem to the blossom end; and,

(e) Fruit actually infested with worms.

(8) "Badly misshapen" means that the tomato is decidedly kidney-shaped, lopsided, elongated, angular or otherwise badly deformed.

Issued August 26, 1953



Deputy Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

U. S. STANDARDS FOR CANNING TOMATOES (1938)

These standards are revised at this time so as to expand and clarify the definitions of "well colored" and "fairly well colored". Since the interpretation of these definitions has been the same in the U. S. Standards for Canning Tomatoes issued in 1926 and the U. S. Standards for Tomatoes for Manufacture of Strained Tomato Products issued in 1933, it is thought that wording the definitions alike in both sets of standards will clarify any misunderstandings which may have existed.

Grades for canning tomatoes which will provide a definite basis for contracts between the canner and the grower are meeting with increasing favor. Such grades must recognize variations in commercial value and still be simple enough to be practical in actual operation.

It should be understood at the outset that the only grading required of the grower is the removal of Culls. Such tomatoes should be left in the field. It is not intended that the grower sort the tomatoes into No. 1 and No. 2 grades. The proposed grades provide a basis for sampling the tomatoes as they are delivered to the cannery.

The application of these grades requires the services of private or official inspectors to determine the amounts of each grade in the various loads of tomatoes. Such inspectors must be capable, efficient, and above all they must be absolutely neutral. The inspectors reports should show the percentages of U. S. No. 1, U. S. No. 2, and Cull tomatoes.

Buying and selling on grade will encourage better production and better handling. The practice of paying a flat price for everything which is accepted, discriminates against the best growers. The grower should be paid a suitable premium for stock of high quality which will make a high quality manufactured product. Such stock can be canned at a minimum cost. On the other hand there should be suitable penalties for the delivery of culls.

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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

U. S. STANDARDS FOR CANNING TOMATOES (1938)
(Effective December 31, 1938)

GRADES

U. S. No. 1 shall consist of tomatoes which are firm, ripe, well colored, well formed; free from molds and decay and from damage caused by growth cracks, worm holes, catfaces, sunscald, freezing injury, or mechanical or other means. (See minimum size)

U. S. No. 2 shall consist of tomatoes which do not meet the requirements of the foregoing grade but which are ripe and fairly well colored and which are free from serious damage from any cause. (See minimum size)

Culls are tomatoes which do not meet the requirements of either of the foregoing grades.

MINIMUM SIZE

The minimum size may be fixed by agreement between buyer and seller. Tomatoes below this specified minimum size shall be classed as Culls.

DEFINITIONS OF TERMS

As used in these standards:

"Firm" means that the tomato is not soft, puffy, shriveled or water soaked.

"Well colored" means that at least 90 percent of the flesh of the tomato has good red color, provided that a tomato having flesh of a lighter shade of red shall be considered as "well colored" if enough additional area of the flesh has a shade of red color so that the tomato has a sufficient amount of red to be equivalent in color to that of a tomato which has 90 percent good red color.

"Fairly well colored" means that at least two-thirds of the flesh of the tomato has good

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red color, provided that a tomato having flesh of a lighter shade of red shall be considered as "fairly well colored" if enough additional area of the flesh has a shade of red color so that the tomato has a sufficient amount of red to be equivalent in color to that of a tomato which has two-thirds good red color.

"Well formed" means that the tomato shall not be extremely flat or otherwise badly misshapen.

"Damage" means any injury which cannot be removed in the ordinary process of trimming and peeling without a loss of more than 10 percent (by weight) of the tomato in excess of that which would occur if the tomato were perfect.

"Serious damage" means any injury which cannot be removed in the ordinary process of trimming and peeling without a loss of more than 20 percent (by weight) of the tomato in excess of that which would occur if the tomato were perfect.

Issued December 15, 1938.

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR GREEN TOMATOES FOR PROCESSING
(Effective April 15, 1950)

GRADES 1/

U. S. No. 1 shall consist of tomatoes which are green in color (1), fairly firm, free from decay, stems and worms, and are free from damage (2) caused by growth cracks, worm holes (2a), scars, catfaces, sunburn, sunscald, freezing, disease, or mechanical or other means. (See minimum size)

U. S. No. 2 shall consist of tomatoes which do not meet the requirements of the foregoing grade, but are green in color (1), and are free from worms and from damage caused by worm holes (2a), and which are free from serious damage (3) by any cause. (See minimum size)

Culls are tomatoes which fail to meet the requirements of either of the foregoing grades.

MINIMUM SIZE

The minimum size may be fixed by agreement between buyer and seller. Tomatoes below the specified minimum size shall be classed as Culls.

DEFINITIONS

(1) "Green in color" means that the surface of the tomato shows no pink or red color.

(2) "Damage" means any injury which cannot be removed in the ordinary process of trimming without a loss of more than 10 percent, by weight, of the tomato in excess of that which would occur if the tomato were perfect. The following shall be considered damage:

1/ Number and letters in parentheses following grade terms indicate where such terms are defined under Definitions.

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(a) Worm holes, when the injury has penetrated beneath the outer wall of the tomato to the extent that the injury has damaged the tomato for processing.

(3) "Serious damage" means any injury which cannot be removed in the ordinary process of trimming without a loss of more than 20 percent, by weight, of the tomato in excess of that which would occur if the tomato were perfect.

Issued March 23, 1950.

F. R. Burke

Acting Assistant Administrator
Production and Marketing Administration

UNITED STATES DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

U. S. STANDARDS FOR TOMATOES FOR MANUFACTURE OF
STRAINED TOMATO PRODUCTS 1/
(Effective March 1, 1933)

GRADES

U. S. No. 1 shall consist of tomatoes which are fairly firm, ripe, well colored, and free from stems and from damage caused by badly discolored cracks, shriveling, molds, decay, sunburn, sunscald, freezing or other means.

U. S. No. 2 shall consist of tomatoes which do not meet the requirements of the foregoing grade but which are ripe and fairly well colored and which are free from serious damage from any cause.

Culls are tomatoes which do not meet the requirements of either of the foregoing grades.

DEFINITIONS OF TERMS

As used in these standards:

"Fairly firm" means that the tomato is not water-soaked.

"Well colored" means that at least 90 percent of the flesh of the tomato has good red color, provided that a tomato having flesh of a lighter shade of red shall be considered as "well colored" if enough additional area of the flesh has a shade of red color so that the tomato has a sufficient amount of red to be equivalent in color to that of a tomato which has 90 percent good red color.

"Fairly well colored" means that at least two-thirds of the flesh of the tomato has good red color, provided that a tomato having flesh of a lighter shade of red shall be considered as "fairly well colored" if enough additional area of the flesh has a shade of red color so that the tomato has a sufficient amount of red to be equivalent in color to that of a tomato which has two-thirds good red color.

1/ This is a re-issue of U. S. Standards for Tomatoes For Manufacture of Strained Tomato Products (Effective March 1, 1933) formerly issued by the Bureau of Agricultural Economics. No change is made in the text of the standards.

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"Damage" means any injury which appreciably affects the quality of the tomato for pulping. Any one of the following defects or any combination of defects which exceeds the maximum allowed for any one defect shall be considered as damage:

(a) Molds or decay, except that molds or very slight decay which can be removed in the ordinary process of washing without hand trimming shall not be considered as damage.

(b) Sunburn or sunscald which cannot be removed in the ordinary process of trimming without a loss of more than 10 percent, by weight, of the tomato in excess of that which would occur if the tomato were perfect.

(c) Tomatoes which show an appreciable amount of shriveling.

"Serious damage" means any injury which severely affects the quality of the tomato for pulping. Any one of the following defects or any combination of defects which exceeds the maximum allowed for any one defect shall be considered as serious damage.

(a) Decay which has caused the tomato to become sour, or decay or disease, such as Anthracnose spots, Blossom-end Rot, Soil Rot, or any other decay or disease which cannot be removed in the ordinary process of trimming without a loss of more than 20 percent, by weight, of the tomato in excess of that which would occur if the tomato were perfect.

(b) Sunburn or sunscald which cannot be removed in the ordinary process of trimming without a loss of more than 20 percent, by weight, of the tomato in excess of that which would occur if the tomato were perfect.

(c) Shriveling when the flesh of the tomato is tough and rubbery.

Issued March 1, 1933
Reissued April 23, 1947

J. J. [Signature]
Acting Assistant Administrator
Production and Marketing Administration