



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Fresh
Products
Branch**

United States Standards for Grades of Green Asparagus for Processing

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United States Standards for Grades of Green Asparagus for Processing ¹

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Grades

§51.4075 U.S. No. 1.

"U.S. No. 1" consists of spears of asparagus which meet the following requirements:

(a) Basic requirements:

- (1) Fresh; and,
- (2) Fairly well formed.

(b) Free from:

- (1) Decay; and,
- (2) Broken tips.

(c) Free from damage caused by:

- (1) Doubles;
- (2) Spreading tips;
- (3) Knife cuts;
- (4) Broken butts;
- (5) Hail;
- (6) Freezing;

¹Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

- (7) Dirt;
- (8) Disease;
- (9) Beetles or other insects; or,
- (10) Mechanical, or other means.
- (d) Size: Unless otherwise specified, each spear shall meet the following requirements:
 - (1) **For diameter.** Not less than one-fourth inch.
 - (2) **For length.** Not more than 7-1/2 inches.
- (e) Color: Unless otherwise specified, the spear shall have green color extending at least 4 1/2 inches below the tip. There shall be no restrictions regarding the amount of white color permitted on a spear unless agreed upon by the processor and grower. (See §51.4078.)
- (f) For tolerances see "Application of Standards" §51.4079.

§51.4076 U.S. No. 2.

"U.S. No. 2" consists of spears of asparagus which meet the following requirements:

- (a) Basic requirements:
 - (1) Fresh.
 - (b) Free from:
 - (1) Decay.
 - (c) Free from damage caused by:
 - (1) Dirt.
 - (d) Free from serious damage caused by:
 - (1) Disease;
 - (2) Beetles or other insects; or,
 - (3) Mechanical, or other means.
 - (e) Size. Unless otherwise specified, each spear shall be not more than 7-1/2 inches in length.
 - (f) Color. Unless otherwise specified, the spear shall have green color extending at least 3 inches below the tip. There shall be no restrictions regarding the amount of white color permitted on a spear unless agreed upon by the processor and grower. (See §51.4078.)
 - (g) For tolerances see "Application of Standards" §51.4079.

Culls

§51.4077 Culls.

"Culls" are spears of asparagus which do not meet the requirements of either of the foregoing grades. Length of spear in excess of that specified in the lowest grade upon which a contract is based and any amount of white in excess of that which may be specified for that grade shall be considered as a "Butt."

Butt

§51.4078 Butt.

That part of a spear that is in excess of the maximum length specified shall be classed as a butt; and if a contract between canner and grower restricts the amount of white on a spear, the white in excess of the amount specified shall also be classified as a butt; and in either case the remaining portion of the spear shall be considered as meeting the grade requirements in regard to these factors.

Application of Standards

§51.4079 Application of standards.

In the application of these standards to determine the percentage of U.S. No. 1 and U.S. No. 2 quality, culls, butts, and off-size in a lot, tolerances shall not apply.

(a) **Tolerances.** When lot of asparagus is required to meet a specified grade, the following tolerances, by weight, shall apply:

(1) **For defects.** 10 percent for spears in any lot which fail to meet the requirements of the grade other than for butts and off-size: **Provided**, That not more than one-tenth of this amount, or 1 percent, shall be allowed for spear as affected by decay.

(2) **For butts.** 5 percent.

(3) **For off-size.** 10 percent, including not more than 5 percent for spears smaller than any specified minimum diameter.

Diameter Classification

§51.4080 Diameter classification.

(a) The following terms are provided for describing the diameter of the spears:

(1) **Small.** One-fourth inch to less than three-eighths inch in diameter.

(2) **Medium.** Three-eighths inch to less than five-eighths inch in diameter.

(3) **Large.** Five-eighths inch or larger in diameter.

(b) The diameter shall be the greatest thickness of the spear measured at a point 5 inches from the tip, except that spears which are less than 5 inches in length shall be measured at the base of the spear.

Definitions

§51.4081 Fresh.

"Fresh" means not wilted, limp or flabby.

§51.4082 Fairly well formed.

"Fairly well formed" means the spear is not badly flattened, crooked, or otherwise so badly deformed that its processing quality is materially affected.

§51.4083 Damage.

"Damage" means any defect which detracts from the processing quality of the portion of the spear that extends a distance of 4-1/2 inches from the tip, or which materially detracts from the canning or freezing quality of the remaining portion of the spear exclusive of the butt. 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) Doubles which detract from the appearance of that portion of the spear that extends a distance of 4-1/2 inches from the tip. Doubles which occur on the remaining portion of the spear shall not be regarded as damage.

(b) Spreading tips, when the tips are so spread or branched that the appearance is appreciably injured. Tips which have a "seedy" appearance shall be considered damaged.

(c) Dirt or sand which is so imbedded in the tip that it cannot be removed in the ordinary process of washing.

(d) Beetle eggs or holes which affect the portion of the spear that extends a distance of 4-1/2 inches from the tips, or which materially detract from the processing quality of the remaining portion of the spear exclusive of the butt.

§51.4084 Green color.

"Green color" means any shade or tinge of green color or purple color which will blanch green. The amount of green color shall be determined by measuring the distance from the extreme tip to the lowest point at which any shade of green color completely encircles the spear.

§51.4085 Serious damage.

"Serious damage" means any defect which seriously detracts from the processing quality of that part of the spear not classed as a butt. 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) Broken tips when three or more segments are missing from the tip or when the extreme tip is missing and the broken end is not at least fairly well concealed by lower scales.
- (b) Spreading tips when the tip branches are more than three-quarter inch in length or when extending out from the spear.
- (c) Beetle eggs when more than six eggs are present on the spear providing that not more than three eggs are present within a distance of 4-1/2 inches below the tip.

Metric Conversion Table

§51.4086 Metric Conversion Table.

Inches	Millimeters (mm.)
1/8 equals	3.2
1/4 equals	6.4
3/8 equals	9.5
1/2 equals	12.7
5/8 equals	15.9
3/4 equals	19.1
1 equals	25.4
2 equals	50.8
3 equals	76.2
4 equals	101.6
4-1/2 equals.....	114.3
5 equals.....	127.0
7-1/2 equals.....	190.5
10 equals.....	254.0