



**United States
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Agriculture**

**Agricultural
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Service**

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Vegetable
Division**

**Fresh
Products
Branch**

United States Standards for Grades of Onion Sets

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United States Standards for Grades of Onion Sets¹

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General

§51.3980 General.

(a) These standards are recommended to the onion set industry as a basis for determining the quality of onion sets. Among other requirements of these standards it will be noted that onion sets must meet certain size specifications in order to grade U.S. No. 1 or U.S. No. 2. Although factors such as maturity and freedom from damage by disease, sprouts, etc. are very important, the size of onion sets is the principal factor which has caused confusion and dissatisfaction between sellers and buyers.

(b) It has been a general practice to buy and sell onion sets as having passed through a certain size and type screen. Such a method of selling does not always give a true picture of the size of the sets. For example, sets described as having been passed through a 15/16 inch bar screen may actually have a considerable percentage ranging from 1 inch to 1-1/4 inches or more in diameter if the onions are flat shaped. On the other hand, if the field run of sets is generally small there may be practically none over 1 inch in diameter after having passed through the 15/16 inch bar screen.

(c) In order to insure that most of the sets in a lot are not close to the maximum size, U.S. No. 1 grade requires, unless otherwise specified, at least 50 percent of the sets, by weight, to be 3/4 inch and smaller but not smaller than 5/16 inch in diameter. The U.S. No. 1 grade designation may not be used, however, on lots of sets having less than 40 percent 3/4 inch and smaller in diameter.

(d) It is thought that contracting on the basis of uniform standards which have actual size specifications for the sets, regardless of the size and type of screen used, will prove satisfactory to the trade. Actual size specifications rather than a mere statement that the sets have been passed

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.

through a certain size screen, should furnish the prospective buyer a truer picture of a lot of sets and serve as a more definite basis for the settlement of disputes.

Grades

§51.3981 U.S. No. 1.

"U.S. No. 1" consists of onion sets of similar varietal characteristics which are mature, fairly firm, free from decay and from damage caused by tops, sprouting, freezing, mold, moisture, dirt, chaff or other foreign matter, disease, insects, or mechanical or other means.

(a) The minimum size shall be not less than 5/16 inch in diameter. The maximum size shall be not more than 1 inch in diameter. Unless otherwise specified, at least 50 percent, by weight, of the sets in the lot shall be 3/4 inch and smaller: **Provided**, That the percentage specified shall not include any sets less than 5/16 inch in diameter: **And provided further**, That the "U.S. No. 1" designation shall not be used on lots of sets that have less than 40 percent from 5/16 to 3/4 inch, inclusive.

(b) Other maximum sizes smaller than 1 inch may be specified in connection with the grade in terms of fourths, eighths, or sixteenths of an inch as "U.S. No. 1, 3/4-inch maximum", "U.S. No. 1, 7/8-inch maximum", "U.S. No. 1, 15/16-inch maximum", in accordance with the facts. Percentages less than 50 but not less than 40 must be specified in connection with the grade and percentages greater than 50 for sets which are from 5/16 to 3/4 inch in diameter may be specified as "U.S. No. 1, 40 percent 3/4 inch and smaller", "U.S. No. 1, 65 percent 3/4 inch and smaller", etc. in accordance with the facts. A range in diameters may also be specified as "U.S. No. 1, 3/8 to 7/8 inch" provided the lot has 40 percent or more of sets 5/16 to 3/4 inch in diameter.

(c) **Tolerances.** In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, are provided as specified:

(1) **For defects.** Not more than a total of 6 percent of the onion sets in any lot may fail to meet the requirements of the grade, including therein not more than 2 percent for onion sets affected by decay and not more than 2 percent for dirt, chaff, and other foreign matter.

(2) **For size.** Eight percent for onion sets which are larger than the specified maximum size and 3 percent for onion sets which are smaller than the specified minimum size.

(3) No part of any tolerance shall be used to reduce the percentage of onion sets in any lot which is specified to be within any range from 5/16 to 3/4 inch in diameter.

§51.3982 U.S. No. 2.

"U.S. No. 2" consists of onion sets which meet the requirements of U.S. No. 1 grade except that they shall be free from serious damage by tops and except for size requirements.

(a) The minimum size shall be not less than 5/16 inch in diameter. The maximum size shall be not more than 1-1/8 inches in diameter. Unless otherwise specified at least 50 percent, by weight, of the sets in the lot shall be 7/8 inch and smaller: **Provided**, That the percentages specified shall not include any sets less than 5/16 inch in diameter.

(b) Other minimum sizes may be specified in connection with the grade as "U.S. No. 2, 3/8 inch minimum", "U.S. No. 2, 1/2 inch minimum", etc., in accordance with the facts. A maximum size of 1-1/16 inches may also be specified. Percentages other than that specified for sets which are from 5/16 to 7/8 inch inclusive in diameter or a range of diameters may also be specified as "U.S. No. 2, 60 percent 7/8 inch and smaller", "U.S. No. 2, 3/4 to 1-1/8 inches", etc., in accordance with the facts. When a minimum size larger than 5/16 inch, or a range of diameters is specified in

connection with the grade there is no requirement as to the percentage of sets from 5/16 to 7/8 inch in diameter.

(c) **Tolerances.** In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, are provided as specified:

(1) **For defects.** Not more than a total of 6 percent of the onion sets in any lot may fail to meet the requirements of the grade, including therein not more than 2 percent for onion sets affected by decay and not more than 2 percent for dirt, chaff, and other foreign matter.

(2) **For size.** Eight percent for onion sets which are larger than the specified maximum size and 3 percent for onion sets which are smaller than the specified minimum size.

(3) No part of any tolerance shall be used to reduce the percentage of onion sets in any lot which is specified to be within any range from 5/16 to 7/8 inch in diameter.

Unclassified

§51.3983 Unclassified.

"Unclassified" consists of onion sets 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.

Definitions

§51.3984 Similar varietal characteristics.

"Similar varietal characteristics" means that the sets are the same general type. Onion sets of different colors shall not be mixed in the same container.

§51.3985 Mature.

"Mature" means that the sets are dry and well cured.

§51.3986 Fairly firm.

"Fairly firm" means that the set may yield slightly to moderate pressure but is not appreciably soft or spongy.

§51.3987 Damage.

"Damage" means any defect, or any combination of defects, which materially detracts from the appearance of the lot, or the shipping or planting quality of the individual sets. Any lot of sets shall be considered as damaged, when more than 30 percent, by weight, of the sets have tops over 2-1/2 inches in length. Sets which have sprouts over 1/4 inch in length shall also be considered as damaged.

§51.3988 Serious damage by tops.

"Serious damage by tops" means that more than 50 percent, by weight, of the sets in any lot have tops over 2-1/2 inches in length.

§51.3989 Diameter.

"Diameter" means the smallest dimension measured through the center at right angles to a line running from the stem to the root.