



**United States  
Department of  
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# **United States Standards for Grades of Muscadine (*Vitis rotundifolia*) Grapes**

**Effective February 13, 2006**

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## **Grades**

### **§51.790 U.S. Extra No. 1.**

Any lot of grapes may be designated as “U.S. Extra No. 1” when the grapes meet the requirements of U.S. No.1: **Provided**, That in addition to these requirements, 90 percent by count of the containers in the lot meet the requirements of Standard pack.

### **§51.791 U.S. No. 1.**

“U.S. No. 1 consists of individual grapes or multiple grapes attached by a capstem, which meet good soluble solids and the following requirements:

(a) Basic requirements for berries:

(1) Similar varietal characteristics (except when designated as assorted varieties);

(2) Mature;

(3) Well colored;

(4) Clean;

(5) Not excessively soft;

(6) Not dried;

(7) Not excessively wet from juice;

(8) Not crushed, split or leaking; and,

(b) Free from:

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

- (1) Decay;
- (2) Mold;
- (3) Insect larvae or holes caused by them;
- (4) Overripe;
- (5) Free from damage by any other cause. (See §51.802.)
- (c) Stems free from:
  - (1) Mold
  - (2) Decay
- (d) For tolerances see §51.792.

**Tolerances**

**§51.792 Tolerances.**

In order to allow for variations incident to proper grading and handling, the following tolerances, by count, or equivalent basis are provided as specified: 5 percent tolerance for berries which are seriously damaged by pulled stems. Additionally, 10 percent for berries which fail to meet the requirements for the grade: **Provided**, That included in this amount not more than 5 percent shall be allowed for defects causing serious damage, including in this latter amount not more than 2 percent for berries affected by mold or decay.

**Application of Tolerances**

**§51.793 Application of tolerances.**

Individual samples shall have not more than double the tolerances specified, except that at least two defective berries may be permitted in any sample: **Provided**, that the average for the entire lot are within the tolerances specified for the grade.

**Standard Pack**

**§51.794 Standard pack.**

Berries packed as U.S. Extra No. 1 grade shall be fairly uniform in size.

- (a) “Fairly uniform in size” means that not more than 10 percent, by count of the berries in the sample may vary more than 3/8 inch in diameter.
- (b) “Diameter” means the greatest dimension of the berry measured at right angles to a line from the stem to blossom end of fruit.

**Color Requirements**

**§51.795 Color requirements.**

- (a) “Well colored” means in the case of:
  - (1) “Black and red varieties” that 75% of the surface of the berry shows characteristic color for the variety.
  - (2) “White varieties.” No requirement, except that Carlos, Fry or similar varieties must show any amount of blush or bronze color on the berry.
- (b) “Characteristic color” means in the case of:
  - (1) “Black varieties” colors include reddish purple, purple and black.
  - (2) “Red varieties” colors include light pink, pink, red, dark red and purple.
  - (3) “White varieties” colors include light green, straw, amber and bronze. Some amount of blush or pink color may also be characteristic for certain varieties.

**Definitions**

**§51.796 Good soluble solids.**

“Good soluble solids” means the combined juice from the least mature berries, as determined by use of a standard hand refractometer shall be at least 13 percent. No lot shall be considered as failing to meet these requirements unless the composite juice sample from grapes of two containers or two consumer units, which appear to have the least mature grapes, test below 13 percent soluble solids. The minimum percentage for soluble solids for any lot shall be determined from the containers with the least mature berries.

(a) For grapes packed in consumer units, the minimum percentage of soluble solids shall be determined from the juice of all the berries in the consumer unit.

(b) For all other containers, the minimum percentage of soluble solids shall be determined from the juice of at least 10 percent, by weight of the berries of the least mature grapes in that container.

**§51.797 Similar varietal characteristics.**

"Similar varietal characteristics" means that the berries in any container are similar in color and shape.

**§51.798 Mature.**

"Mature" means that the grapes have reached that stage of maturity in which the flesh is juicy and palatable.

**§51.799 Not excessively soft.**

“Not excessively soft” means the berry is reasonably firm and does not yield excessively to moderate pressure. A slight softening is required for optimum flavor.

**§51.800 Overripe.**

“Overripe” means that the individual berry is dead ripe, the flesh is soft, mushy and will not spring back to its original shape. Overripe berries are past commercial utility.

**§51.801 Clean.**

"Clean" means that the berries are practically free from spray residue, or other foreign material, and are not caked with dirt, or showing evidence of lying on the ground.

**§51.802 Damage.**

"Damage" means any specific defect described in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the fruit. The following specific defects shall be considered as damage:

(a) Discoloration, Scars and Powdery Mildew scarring, when excessively deep or rough or dark colored and aggregate more than 10 percent of the surface of the berry, or when smooth or fairly smooth, light colored and superficial and aggregate more than 15 percent of the surface of the berry.

(b) Foreign material, when excessive amounts of leaves, loose stems or other foreign material is loose in containers and readily noticeable, the sample will be considered damaged, and scored against a lot tolerance of 20 percent.

(c) Any amount of characteristic speck type or smooth net-like russeting shall be permitted.

Russeting which exceeds the following shall be considered as damage:

(1) Rough or thick russeting when the aggregate area exceeds 10 percent of the surface of the berry;

(2) Fairly smooth, and smooth solid russeting when the aggregate area exceeds 15 percent of the

surface of the berry.

(d) Insects when present, or when the appearance is materially affected by any insect.

(e) Skin breaks exclusive of pulled stems, when not well healed or when the appearance of the berry is materially affected.

(f) Excessively wet berries when the individual berry is excessively wet from juice from crushed, leaking or decayed berries.

(g) Decayed stems.

**§51.803 Serious damage.**

"Serious damage" means any specific defect described in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects which seriously detracts from the appearance or the edible or marketing quality of the fruit. The following specific defects shall be considered as serious damage:

(a) Decayed berries.

(b) Moldy berries.

(c) Overripe berries.

(d) Insect larvae or holes caused by them.

(e) Russeting which exceeds the following shall be considered as serious damage:

(1) Rough or thick russeting when the aggregate area exceeds 25 percent of the surface of the berry;

(2) Fairly smooth, smooth solid and when the aggregate area exceeds 50 percent of the surface of the berry.

(f) Discoloration, Scars or Powdery Mildew scars when excessively deep or rough or dark colored and aggregate more than 25 percent of the surface of the berry, or when smooth or fairly smooth, light colored and superficial and aggregate more than 50 percent of the surface of the berry.

(g) Skin breaks exclusive of pulled stems which are not well healed.

(h) Pulled stems when the flesh is excessively torn or which causes the berry to leak. Pulled stems which are dry, superficial or well healed shall not be considered a defect.

(i) Spotted berries when spots are reddish brown to black in color. Score when individual spot is greater than 1/8 inch in diameter, or when more than one spot is present.