



**United States  
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**Fruit and  
Vegetable  
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Products  
Branch**

# **United States Standards for Grades of Mangos**

**Effective August 24, 2007**

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### **Grades**

#### **§51.1043 U.S. Fancy.**

“U.S. Fancy” consists of mangos of similar varietal characteristics which are mature, clean, well formed, well trimmed, and which are free from decay, overripe, freezing, internal discoloration, insects, larva, insect or larva feeding, skin breaks which are not healed, and free from injury by healed skin breaks, bruising, scab, shriveling, external (surface) discoloration, sunken discolored areas, scars, russeting, other diseases, mechanical or other means.

(a) Tolerances. In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the mangos in any lot may fail to meet the requirements of this grade, including in this amount not more than 5 percent shall be allowed for defects causing damage, including in this latter amount not more than 2 percent shall be allowed for decay.

#### **§51.1044 U.S. No. 1.**

“U.S. No. 1” consists of mangos of similar varietal characteristics which are mature, clean, fairly well formed, well trimmed, and which are free from decay, overripe, freezing, skin breaks which are not healed and extend into the flesh, insects or larva, and free from damage caused by insect or larva feeding, bruising, shriveling, scab, external (surface) discoloration, internal discoloration, sunken discolored areas, scars, russeting, other diseases, mechanical or other means.

(a) Tolerances. In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the mangos in any lot may fail to meet the requirements of this grade, including 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 shall be allowed for decay.

**§51.1045 U.S. No. 2.**

“U.S. No. 2” consists of mangos of similar varietal characteristics which are mature, clean, fairly well formed, well trimmed, and which are free from decay, overripe, freezing, skin breaks which are not healed and extend into the flesh, insects or larva, and free from serious damage caused by insect or larva feeding, bruising, shriveling, scab, external (surface) discoloration, internal discoloration, sunken discolored areas, scars, russeting, other diseases, mechanical or other means.

(a) Tolerances. In order to allow for variations incident to proper grading and handling, not more than 10 percent, by count, of the mangos in any lot may fail to meet the requirements of this grade, included in this amount not more than 2 percent shall be allowed for decay.

**Application of Tolerances**

**§51.1046 Application of tolerances.**

The contents of individual packages in the lot, based on the sample inspection, are subject to the following limitations:

(a) For a tolerance of 10 percent or more, individual packages shall have not more than 1 1/2 times the tolerance specified, and for a tolerance of less than 10 percent, individual packages shall have not more than double the tolerance specified; *Provided*, that at least one defective specimen may be allowed in any package: *And provided further*, that the averages for the entire lot are within the tolerances specified for the grade.

**Definitions**

**§51.1047 Clean.**

“Clean” means that the fruit is practically free from dirt, dust or other foreign material.

**§51.1048 Damage.**

“Damage” means any defect that materially affects the appearance, or the edible or shipping quality of the mango. Any one of the defects listed in the “Classification of Defects” table (See §51.1059.), or any combination thereof, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage.

**§51.1049 Diameter.**

“Diameter” means the greatest dimension of the mango measured at right angles to a line from stem to blossom end.

**§51.1050 Fairly well formed.**

“Fairly well formed” means that the shape of the mango is typical of the variety and is symmetrical with slight irregularities in shape allowed; but, not to an extent where its appearance is materially affected.

**§51.1051 Injury.**

“Injury” means any injury or defect that slightly affects the appearance, or the edible or shipping quality of the mango. Any one of the following defects listed in the “Classification of Defects” table (See §51.1059.), or any combination thereof, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as injury.

**§51.1052 Mature.**

“Mature” means that the mango has reached the stage of development that will ensure the proper completion of the ripening process.

**§51.1053 Misshapen.**

“Misshapen” means that the shape of the mango is abnormal to an extent that its appearance is materially affected.

**§51.1054 Overripe.**

“Overripe” means that flesh of the mango yields to slight pressure and is beginning to disintegrate and is past commercial utility.

**§51.1055 Serious damage.**

“Serious damage” means any defect which seriously affects the appearance, or the edible or shipping quality of the mango. Any one of the following defects listed in the “Classification of Defects” table (See §51.1059.), or any combination thereof, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage.

**§51.1056 Similar varietal characteristics.**

“Similar varietal characteristics” means the fruit in any package is of similar shape and of similar skin and flesh color.

**§51.1057 Well formed.**

“Well formed” means that the shape of the mango is typical of the variety and is symmetrical without irregularities in shape.

**§51.1058 Well trimmed.**

“Well trimmed” means the stem is neatly clipped or broken off at a point not more than 1 inch beyond the point of attachment.

<b>§51.1059 Classification of Defects. <sup>1</sup></b>			
<b>Defects</b>	<b>Injury</b>	<b>Damage</b>	<b>Serious Damage</b>
Bruising	Any slight surface indentation and discoloration of the flesh extending more than 1/8 inch in depth and 1/2 inch in diameter.	Surface indentation and discoloration of the flesh extends deeper than 1/4 inch and causing discoloration exceeding the area of a circle 3/4 inch in diameter.	Surface indentation and discoloration of the flesh extends deeper than 1/2 inch and causing discoloration exceeding the area of a circle 1 inch in diameter.
External (Surface) Discoloration	Discoloration affecting an aggregate area more than 5% of the fruit surface.	Discoloration affecting an aggregate area more than 15% of the fruit surface.	Discoloration affecting an aggregate area more than 25% of the fruit surface.
Insects or Insect or Larva Feeding Injury	When any is present or when any feeding injury is evident on the fruit.	When any is present or when feeding injury aggregates an area that exceeds that of a circle 1/2 inch in diameter.	When any is present or when feeding injury aggregates an area that exceeds that of a circle 1 inch in diameter.
Internal Discoloration	When present in any amount.	When affecting an aggregate area more than 3/4 inch in diameter.	When affecting an aggregate area more than 1 1/2 inch in diameter.
Scab	When cracked, or when the aggregate area exceeds that of a circle 1/4 inch in diameter.	When cracked, or when the aggregate area exceeds that of a circle 1/2 inch in diameter.	When the aggregate area exceeds that of a circle 3/4 inch in diameter.

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<sup>1</sup> References to area, aggregate areas, or length are based on fruit 3 inches in diameter. Corresponding smaller or larger areas would be allowed on smaller or larger fruit.

<b>§51.1059 Classification of Defects (continued) <sup>1</sup></b>			
<b>Defects</b>	<b>Injury</b>	<b>Damage</b>	<b>Serious Damage</b>
Scars or Russeting	When light colored, smooth and affecting an aggregate area more than 5% of the surface, or when dark or rough or scaly and affecting an aggregate area more than 2 1/2% of the surface.	When light colored, smooth and affecting an aggregate area more than 10% of the surface, or when dark or rough or scaly and affecting an aggregate area more than 5% of the surface.	When light colored, smooth and affecting an aggregate area more than 15% of the surface, or when dark or rough or scaly and affecting an aggregate area more than 10% of the surface.
Skin Breaks	When unhealed or when the aggregate area of healed breaks exceeds that of a circle 1/4 inch in diameter or 1/4 inch in length.	When any break is into the flesh or when the aggregate area of healed breaks exceeds that of a circle 1/2 inch in diameter or 1/2 inch in length.	When any break is into the flesh or when the aggregate area of healed breaks exceeds that of a circle 1 inch in diameter or 1 inch in length.
Shriveling	When affecting an aggregate area more than 5% of the surface.	When affecting an aggregate area more than 15% of the surface.	When affecting an aggregate area more than 25% of the surface.
Sunken Discolored Areas	When more than 5% of the surface has a distinct sunken area with discoloration.	When more than 10% of the surface has a distinct sunken area with discoloration.	When more than 15% of the surface has a distinct sunken area with discoloration.

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<sup>1</sup> References to area, aggregate areas, or length are based on fruit 3 inches in diameter. Corresponding smaller or larger areas would be allowed on smaller or larger fruit.