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Grape Grader's Manual

Michigan State University Cooperative Extension Service

F Folder Series

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Department of Agriculture

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EXTENSION FOLDER F-200

# *Grape Grader's* \_\_\_\_\_

# \_\_\_\_\_ *Manual*



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**MICHIGAN STATE UNIVERSITY**  
**COOPERATIVE EXTENSION SERVICE**  
**EAST LANSING**

**Suggestion:**

For easy reference, fasten this manual to the  
packinghouse wall.

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# Grape Grader's Manual



(The purpose of this manual is to summarize the provisions of Act No. 145, Michigan Public Acts of 1925, dealing with the packing and sale of grapes prepared for market and to provide practical interpretations of the United States and Michigan grades for American (Eastern type) bunch grapes. The author acknowledges the contributions of Miles Nelson, M. D. Murphy, Don Palmer, and Hunter Hering of the Division of Foods and Standards, Michigan Department of Agriculture.)

## STANDARD GRADES FOR GRAPES

(Act No. 145, P. A. of 1925)

Copies of the full text of Michigan Act No. 145, P. A. of 1925, and of the official United States and Michigan Standards for Eastern Type Bunched Grapes, may be obtained from the Division of Foods and Standards, Michigan Department of Agriculture, Lansing 13, Michigan.

## PACKING REQUIREMENTS

All containers must be clean, in good condition, and clearly marked with the name of the variety or the term "Variety unknown"; the name and address of the packer; the grade or term "Unclassified"; and the true net contents.

Michigan standards require that bunches shall be packed with stems hidden as nearly as possible for the Fancy grade, and the facing bunches in this manner for the No. 1 grade.

Michigan standards require that Michigan Fancy grapes be packed in containers of less than 12-quart (16-pound) capacity; Michigan No. 1, Michigan No. 2, and frosted grapes must be packed in containers of 12-quart (16-pound) capacity or larger.

## GRAPE GRADES

U. S. Fancy Table	Mich. Fancy Table
U. S. No. 1 Table	Mich. No. 1
U. S. No. 1 Juice	Mich. No. 2

### Mixed Varieties:

Any lot of grapes made up of more than one variety which meets all other requirements for the U. S. grades above may be designated U. S. Fancy Table Mixed, U. S. No. 1 Table Mixed, or U. S. No. 1 Juice Mixed.

## LIMITS OF DEFECTS IN U. S. GRAPE

GRADE FACTORS (Continued)	U. S. FANCY TABLE	U. S. NO. 1 TABLE
<b>COLOR</b>	Must have full color for the variety.	Not less than 90 percent of color or portions, or pieces,
<b>BUNCHES</b>	Not less than 50 percent of bunches in any container must be compact; the rest must be fairly compact. Bunches must not be excessively small; however, compact portions of no less than five berries may be used to fill open spaces between whole bunches.	Not less than 50 percent of bunches in any container must be compact; the rest must be fairly compact. Bunches must not be excessively small; however, compact portions of no less than five berries may be used to fill open spaces between whole bunches.
<b>SIZE OF BERRIES</b> (see circle below)	Concord and similar varieties: minimum diameter is 9/16 inch.	Concord and similar varieties: minimum diameter is 9/16 inch.
<b>ATTACHED TO CAPSTEMS</b>	Must be firmly attached to capstem.	Must be firmly attached to capstem.
<b>CRUSHED, DRIED, SHATTERED, SOFT, SPLIT, WET</b>	None permitted.	None permitted.
<b>BERRY MOTH</b>	None permitted.	None permitted.
<b>DECAY-MOLD</b>	None permitted.	None permitted.
<b>MILDEW, RUSSETING</b>	None permitted.	Must not affect appearance of shipped fruit.
<b>HAIL</b>	None permitted.	Must not affect appearance of shipped fruit.
<b>DISEASE, FREEZING INJURY, INSECTS, OTHER DAMAGE</b>	Must not greatly affect appearance quality.	Must not greatly affect appearance quality.

## LIMITS OF DEFECTS IN MICHIGAN

GRADE FACTORS (Continued)	MICHIGAN FANCY TABLE	MICHIGAN NO. 1 TABLE
<b>COLOR</b>	90 percent of grapes must have solid color for the variety.	90 percent of grapes must have solid color for the variety.
<b>BUNCHES</b>	Fairly compact but not closely joined.	Fairly compact but not closely joined.

## GRAPE GRADES (EASTERN TYPE)

### U. S. NO. 1 TABLE

### U. S. NO. 1 JUICE

Not less than 75 percent, by weight, must show full color for the variety; 25 percent may show partially or poorly colored berries (not typical of immature berries, however).

Not less than 85 percent of bunches in any container must be fairly compact.

Not less than 60 percent of bunches in any container must be fairly compact.

Minimum cross section

No requirement.

Stem in all U. S. grades.

None permitted.

None permitted.

None permitted.

None permitted.

None permitted.

None permitted.

Must not greatly affect appearance, eating or shipping quality.

Must not seriously affect market quality.

Must not greatly affect appearance, eating or shipping quality.

Must not seriously affect market quality.

Appearance, eating or shipping

Must not seriously affect market quality.

## MICHIGAN GRAPE GRADES

### MICHIGAN NO. 1

### MICHIGAN NO. 2

Unjoined, solid, or tight:

Sound grapes that have a marketable value. Does not include green, unripe bunches which do not

	however, compact portions of bunches of three or more berries may fill open spaces between full bunches.
<b>SIZE OF BERRIES</b>	No requirements in any Michigan grade.
<b>ATTACHED TO CAPSTEMS</b>	Must be firmly attached for Michigan Fancy or Michigan No. 1.
<b>CRUSHED, DRIED, SHATTERED, SOFT, SPLIT, WET</b>	None permitted for Michigan Fancy or Michigan No. 1.
<b>BERRY MOTH</b>	None permitted for Michigan Fancy or Michigan No. 1.
<b>DECAY-MOLD</b>	Must not greatly affect appearance, eating or shipping quality.
<b>MILDEW, RUSSETING</b>	None permitted for Michigan Fancy or Michigan No. 1.
<b>HAIL</b>	Must not greatly affect appearance, eating or shipping quality.
<b>DISEASE, FREEZING INJURY, INSECTS, OTHER DAMAGE</b>	Must not greatly affect appearance, eating or shipping quality.

meet the requirements of either Michigan Fancy Table or Michigan No. 1 grades.

#### U. S. No. 1 Table:

Not over 10 percent, by weight, may fail to meet requirements; not over 5 percent is allowed for seriously damaged berries. Of this tolerance, not over 2 percent is for berries affected with mold or decay, and 2 percent for dried berries or berry moth. In addition, not over 10 percent, by weight, of the bunches may have 10 percent of undersized berries.

#### U. S. No. 1 Juice:

Not over 15 percent, by weight, may fail to meet requirements; not over 6 percent is allowed for seriously damaged berries. Of this tolerance, not over 3 percent is for berries affected with mold or decay, and not over 2 percent for dried berries and berry moth.

### Michigan Standards

#### Michigan Fancy Table:

Not over 10 percent, by count, of the berries may fail to meet requirements. Not over 2 per-

cent of the berries, by count, may be injured by mechanical means, nor over 1 percent affected by dry rot. Not over 5 percent, by count, may consist of bunches not well formed.

#### Michigan No. 1:

Not over 15 percent, by count, of bunches may fail to meet requirements for bunches. Not over 2 percent, by count, is allowed for dry rot and 3 percent for mechanical injury.

#### Michigan No. 2:

No standards specified.

### MINIMUM DIAMETER (CROSS SECTION) FOR U. S. FANCY TABLE AND U. S. NO. 1 TABLE GRADES:



9/16"

### **Frosted Grapes:**

Michigan law states that grapes suffering frost injury before harvest, and graded according to the standards for Michigan No. 1 and Michigan No. 2, shall be graded "Michigan No. 1 Frosted" or "Michigan No. 2 Frosted."

"Unclassified" is not a grade, but a term to show that no grade has been applied to the lot.

## **GRADE FACTORS**

### **Variety**

Both United States and Michigan standards require that packages of graded grapes contain only one variety, although mixed varieties may be packed under U. S. grade standards as explained above.

### **Maturity**

All grade standards for grapes, except Michigan No. 2, require mature fruit. Michigan No. 2 grade does not include green, unripe bunches.

### **Soundness**

Michigan standards require that all grades must be sound fruit.

## **TOLERANCES**

### **United States Standards**

Individual packages in any lot may vary from the specified tolerances, provided the averages for the entire lot are within the specified tolerances.

For a tolerance of 10 percent or more, individual packages may contain not over one and one-half times the specified tolerance.

For a tolerance of less than 10 percent, individual packages may contain not over double the specified tolerance.

### **U. S. Fancy Table:**

Not over 10 percent, by weight, may fail to meet requirements; not over 5 percent is allowed for seriously damaged berries. Of this tolerance, not over 1 percent is for berries affected with mold or decay, and 2 percent for dried berries or berry moth. In addition, not over 5 percent, by weight, of the bunches may be straggly, and not over 10 percent, by weight, of the bunches in any container may have over 10 percent of undersize berries.

## OTHER GRADER'S MANUALS

Potatoes	F-186 Rev.
Apples	F-199 Rev.
Peaches	F-201 Rev.
Pears	F-202 Rev.
Muskmelons	F-203 Rev.
Slicing Cucumbers	F-204 Rev.
Tomatoes	F-205 Rev.

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