Recommended Standards

FOR

Grading, Packing and Inspection

OF

VIRGINIA APPLES

For Additional Copies of these Grades
Communicate with

DIVISION OF MARKETS
1030 State Office Bldg.
Richmond, Va.

Exhibit Nos. 14

GRADES FOR VIRGINIA APPLES

The specifications included in this booklet have been thoroughly considered by the Committee on Standardization of the State Horticultural Society, and the grades are jointly recommended to Virginia growers by the Extension Division of the Virginia Agricultural College, the Virginia State Horticultural Society, and the Division of Markets of the State Department of Agriculture.

These grades have been given the test of practical use during the last several seasons and such minor changes as have been made are the result of actual experience during past years. These grades will be used as the basis of determining the grade of the fruit in any lot of Virginia apples inspected in the terminal markets by Federal Food Products Inspectors or at Virginia stations by Co-operative Federal-State Inspectors. Likewise all inspections in the orchard at time of packing under the State Inspection Stamp will be made on the basis of these grades and packages marked as "No. 1", "Standard No. 1", "U. S. No. 1", "Virginia No. 1", or "Va-U. S. No. 1", shall be expected to conform to the following grade requirements.

Grading Rules, Packing and Marking Requirements for Virginia Apples in Barrels and Bushels

SEASON—1925.

In the following specifications the grades are designated as U. S. No. 1, etc., since the text has been promulgated by the U. S. Department of Agriculture as the Official Standards for the inspection of Barreled Apples. It is deemed preferable to use the term "U. S. No. 1" in the barrel stencil, but the terms "Va. No. 1 grade," "Standard No. 1," or "Va.-U. S. No. 1" will also be acceptable to the Virginia inspection service.

U. S. No. 1

U. S. No. 1 shall consist of hand picked apples of one variety which are firm, mature, free from decay and from damage caused by dirt, spray-burn, foreign material, skin punctures, sun-scald, visible watercore, bruises, hail, disease, insects or mechanical or other means, except those incident to proper packing. Each apple of this grade shall have the amount of color specified hereinafter for the variety.

In order to allow for variations incident to proper grading and handling, not more than 10 per cent, by weight, of the apples in any package may be below the requirements of this grade, but no part of this tolerance shall be allowed for decay.*

U. S. No. 2

U. S. No. 2 shall consist of hand picked apples of one variety which are firm, mature, free from decay and from serious damage caused by dirt, spray-burn,

*Decay, scald, or other deterioration developing in storage or in transit on apples otherwise up to grade shall be considered as affecting the condition and not the grade.

foreign material, sun-scald, bruises, hail, disease, insects or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10 per cent, by weight, of the apples in any package may be below the requirements of this grade, but no part of this tolerance shall be allowed for decay.*

U. S. FANCY

Below will be found a set of specifications for a grade designated U. S. Fancy. This grade is provided for the use of those who wish a special grade for a particularly well grown crop of superior apples, well colored and free from defects, which meet its requirements. Packing to the requirements of this grade is not often considered desirable or profitable under normal Virginia conditions, as it lessens the attractiveness of the No. 1 barrel pack. When it is not used, the apples meeting its requirements will be deemed to be included in U. S. No. 1.

U. S. Fancy shall consist of hand picked apples of one variety which are firm, mature, well formed, and free from decay, dirt, spray-burn, foreign material, skin punctures, sun-scald, visible watercore, or injury caused by bruises, hail, disease, insects or mechanical or other means, except those incident to proper packing. Each apple of this grade shall have the amount of color specified hereinafter for the variety.

In order to allow for variation incident to proper grading and handling, not more than 10 per cent, by weight, of the apples in any package may be below the requirements of this grade, but no part of this tolerance shall be allowed for decay.*

*Decay, scald, or other deterioration developing in storage or in transit on apples otherwise up to grade shall be considered as affecting the condition and not the grade.

COLOR

In addition to the foregoing requirements for U. S. No. 1 and U. S. Fancy, each apple of these grades must have the percentage of color shown in the tables below. "Color" means that portion of the surface of an apple which shows a good shade of red characteristic of the variety. Faded brown stripes shall not be considered as color.

SOLID RED VARIETIES

	U. S. Fancy	U. S. No. 1
Arkansas Black	50%	25%
Black Ben Davis	50%	25%
Gano	50%	25%
King David	50%	25%
Winesap	50%	25%
Lowry	50%	25%
Virginia Beauty	50%	25%

STRIPED OR PARTIAL RED VARIETIES

	U. S. Fancy	U. S. No. 1
Arkansas (Mammoth Black Twig)	50%	25%
Delicious	50%	25%
Jonathan	50%	25%
Kinnaird	50%	25%
Missouri Pippin	50%	25%
Baldwin	33%	15%
Bonum	33%	15%
Buckingham	33%	15%
King	33%	15%
McIntosh	33%	15%
Stayman	33%	15%
Ben Davis	33%	15%
Geniton	33%	15%
Northern Spy	33%	15%
Rome Beauty	33%	15%
Willow Twig	33%	15%
York Imperial	33%	15%

RED CHEEKED OR BLUSHED VARIETY

U. S. Fancy		U. S. No. 1
Blushed Cheek	Hyde King	Tinge of Color
Blushed Cheek	Maiden Blush	Tinge of Color
Blushed Cheek	Red Cheeked Pippin	Tinge of Color
Blushed Cheek	Winter Banana	Tinge of Color
Blushed Cheek	Other Red Cheeked or Blushed Varieties	Tinge of Color

YELLOW OR GREEN VARIETIES

U. S. Fancy		U. S. No. 1
Characteristic Col.	Grimes Golden	Characteristic Col.
Characteristic Col.	Rhode Island Greening	Characteristic Col.
Characteristic Col.	Albemarle Pippin	Characteristic Col.
Characteristic Col.	Yellow Transparent	Characteristic Col.
Characteristic Col.	Other Yellow or Green Varieties	Characteristic Col.

SIZE

The minimum size of the apples in any package shall be plainly labeled, stenciled or otherwise marked on the barrel. It is also desirable to show both the maximum and minimum size, as such marking more clearly indicates the contents as, 2-¼ inches to 2-¾ inches; 2 inches to 2-¼ inches; 2-¼ inches and up; 2-½ inches to 2-¾ inches.

"Minimum size" means the transverse diameter of the smallest apples permitted in the package taken at right angles to a line running from the stem to the blossom end. Minimum sizes shall be stated in terms of whole and quarter inches, as 2-¼ inches, 2-½ inches, in accordance with the facts.

In order to allow for variations incident to proper

sizing, not more than 5 per cent, by weight, of the apples in any package may be below the specified minimum size.

FACE

The face must not give a false or deceptive idea of the size or quality of the contents and the apples composing the face of the package shall be selected from the same quality or grade as the contents of the package and not from a higher grade or larger size. They shall be reasonably uniform in size and coloring and should be neatly and tightly arranged with the stem end towards the barrel head.

PACK

The apples shall be tightly packed in the container and in order to insure a uniformly tight pack it is recommended that the packing operations be performed on a heavy floor, cement block or other solid foundation, and that the barrel be "racked" or vigorously jarred at least four times while being filled. One corrugated cap should be placed in each end of the barrel with the smooth side of the cap next to the fruit.

DEFINITION OF GRADE TERMS

As used in these grades:

"Well formed" means having the shape characteristic of the variety.

"Free from damage" means that the apples shall not be injured by any defect to an extent either apparent in the process of proper grading or which would cause a loss in the ordinary preparation for use.

"Free from serious damage" means that no defects shall be permitted which, taken singly or collectively, materially deforms or disfigures the fruit.

"Materially deformed" means sufficiently misshapen to cause an additional loss of more than 10 per cent over that which would occur in the ordinary preparation for use if the fruit were well formed.

MARKING REQUIREMENTS

Each and every barrel or bushel of Virginia apples packed or repacked in Virginia for movement in or through the channels of trade or commerce, shall, before it leaves the premises where packed, or repacked, have legibly printed, stamped, stenciled or marked on the head end thereof:

1. The name and address of the person, firm, corporation or association responsible for the grading and packing, or repacking of the contents.

2. The true name of the variety or if this is not known, the expression "Variety Unknown."

3. The proper grade designation or term descriptive of the quality of the contents as set forth in the foregoing grades for Virginia apples in barrels or bushels, viz.—"Fancy", "No. 1", "No. 2".

4. The minimum size of the apples in the barrel and in addition an indication of the range of size is also desirable.

5. The net measure or capacity of the barrel, as, "U. S. Std. bbl.", "U. S. Standard barrel", or "U. S. Standard Bushel".

A part or all of the above markings if desired may be printed on the label, and in addition any brand or trademark term may be used, provided such brand or term is not deceptive or in conflict with the grade terms or designation as prescribed.

Grading Rules, Packing and Marking Requirements for Virginia Apples in Boxes

SEASON—1925.

NOTE: Numbers in parentheses refer to definitions, page 12.

EXTRA FANCY GRADE

Extra Fancy Grade shall consist of apples of one variety which are mature (1), clean (2), hand picked, well formed (3), free from bruises, limb rub, spray burn, sun scald, russeting, drought spots, hail marks, visible watercore, broken skin and from other damage caused by disease, insects or mechanical means, except that russeting at the stem-end characteristic of the variety shall be permitted.

Each apple shall have the amount of color hereinafter specified for apples in this grade.

FANCY GRADE

Fancy Grade shall consist of apples of one variety which comply with specifications for Extra Fancy Grade (except for color) except that they may be fairly well formed (4) and that scab spots affecting not to exceed a total area one-fourth inch in diameter, or limb rubs, slight drought spots (5), slight hail marks (6), or heavy russet (7) affecting a total area not to exceed one-half inch in diameter, and slight russet (8), slight sun scald (9), and two small healed stings (10) on red varieties showing Extra Fancy color shall be permitted.

Each apple shall have the amount of color hereinafter specified for apples in this grade.

C. GRADE

"C" Grade shall consist of apples which are free from infection, soft bruises and broken skin, provided that scab spots affecting a total area not to exceed

one-half inch in diameter and small healed stings (10) shall be permitted in this grade. Apples of this grade must not be marked "Choice."

COMBINATION GRADES

When Extra Fancy and Fancy apples are packed together the boxes may be marked "Combination Extra Fancy and Fancy" and when Fancy and "C" Grade apples are packed together the boxes may be marked "Combination Fancy and 'C' Grade," but Combination Grades must contain at least 25 per cent of apples which would be permitted in the higher grades. When Extra Fancy, Fancy and "C" Grade apples are packed together the boxes must be marked "Orchard Run" or "Combination Extra Fancy, Fancy and 'C' Grade," but any apples so marked must not contain any fruit that will not meet the requirements of the "C" Grade. In case the boxes are marked "Combination Extra Fancy, Fancy and 'C' Grade" they must contain at least 25 per cent Extra Fancy apples, and it shall be unlawful to remove any of the higher grade apples and then pack the remainder as "Orchard Run" or "Combination Extra Fancy, Fancy and 'C' Grade," except that the larger sizes of all grades may be removed and the rest boxed and marked "Jumble" or "Face and Fill" in addition to the grade mark as "'C' Grade Jumble."

COLOR REQUIREMENTS

Apples shall be admitted to the Extra Fancy and Fancy grades subject to the following color specifications. The percentage stated refers to the area of the surface, which must be covered with a good shade of red characteristic of the variety.

For the striped or partial red varieties the percentage of color required shall be the specified percentage of area in which the stripes of good red shall

be in preponderance over the stripes of thin red, green or yellow.

SOLID RED VARIETIES

	Extra Fancy	Fancy
Arkansas Black	75%	25%
Baldwin	75%	25%
Black Ben Davis	75%	25%
Gano	75%	25%
King David	75%	25%
Winesap	75%	25%
Lowry	75%	25%
Virginia Beauty	75%	25%

STRIPED OR PARTIAL RED VARIETIES

	Extra Fancy	Fancy
Spitzenburg Kaign	65%	25%
Delicious	65%	25%
Stayman Winesap	65%	25%
Jonathan	65%	25%
McIntosh	65%	25%
Mammoth Black Twig	50%	25%
Kinnaird	50%	25%
Ben Davis	50%	15%
Bonum	50%	15%
Fameuse	50%	15%
Geniton	50%	15%
Limbertwig	50%	15%
Missouri Pippin	50%	15%
Northern Spy	50%	15%
York Imperial	50%	15%
Rome Beauty	50%	*15%

*No color requirements for Fancy Rome Beauty 100 and larger.

RED CHEEKED OR BLUSHED VARIETIES

Fancy	No color requirements. No stings.
Extra Fancy	Perceptibly blushed cheek.
Maiden Blush	Red Cheek Pippin
Hydes King	Winter Banana

GREEN AND YELLOW VARIETIES

Extra Fancy	Characteristic color.
Fancy	No color requirements. No stings.
Grimes Golden	Yellow Transparent.
Albemarle Pippin	Yellow Bellefluer.
	Rhode Island Greening.

DEFINITION OF TERMS

(1) "Mature" means having reached the stage of maturity which will insure the proper completion of the ripening process.

(2) "Clean" means reasonably free from dust or dirt and free from excessive visible spray residue.

(3) "Well formed" means having the shape characteristic of the variety in the locality where grown.

(4) "Fairly well formed" means that the apple may be of slightly abnormal shape but not deformed so as to cause a loss in paring.

(5) "Slight drought spots" means those drought spots where the surface of the apple is only slightly discolored and depressed.

(6) "Slight hail marks" means only those where the injury is superficial and the skin has not been broken or discolored.

(7) "Heavy russet" means solid bark or cork-like spots such as are characteristic of frost, green fruitworm and leafroller injury.

(8) "Slight russeting" means russet of a smooth nature characteristic of leaf scratches and mildew russeting affecting an area not to exceed 10 per cent. of the surface of the apple in the aggregate and spreading over, or netting, not more than 20 per cent. of the surface.

(9) "Slight sun scald" means that stage of sunburn where the normal color of the apple is but slightly changed over not more than 10 per cent. of the area of the apple and there is no blistering or cracking of the skin in evidenc.

(10) "Worm sting." The term "worm sting" means a thoroughly healed worm sting, as the healing of the sting is the only evidence which shows that it is not infected. **"Small Healed Stings"** are further defined as those in which the diameter of the dark discoloration caused by the sting, exclusive of any encircling green ring, shall not be more than one-eighth inch.

SIZE

Packed apples in any one package shall not vary more than one-half inch in their greatest transverse diameter in boxes marked with sizes 125 or larger, and not more than one-quarter inch in their greatest transverse diameter in boxes marked with sizes 138 or smaller. The size of apples which are jumbled in packages or which are in bulk may be designated by the range in size or the minimum and maximum diameters of the apples in the lot. Minimum diameter shall be stated in terms of whole and quarter inches as "1¾ in. min.," "2 in. min.," "2¼ in. min.," according to the facts. Packages containing apples "Jumbled" or packed "face and fill" should be marked with the minimum size of the apples which they contain.

PACKING

Boxes. All apples packed under these regulations shall be arranged in the container according to the approved and recognized methods with the stems pointing towards the ends of the box, except when jumbled, and all packages shall be tightly filled, but the contents shall not show excessive or unnecessary bruising because of an over-filled package. Each packed box must show a minimum bulge of one-half inch on both top and bottom. Each apple wrapped shall be completely enclosed by its individual wrapper.

TOLERANCE

In order to allow for variation incident to commercial grading and handling a "tolerance" of ten per cent. (10%) for a total of all defects from the standard of grades, and an additional ten per cent.

tolerance for a total of all defects from the standards defined for uniformity of size, wrapping, tightness of pack and bulge, will be permitted and shall be computed by counting, weighing, or measuring the specimens judged to be below the standards.

MARKING REQUIREMENTS

Each and every box of Virginia apples packed or repacked in Virginia for movement in or through the channels of trade or commerce shall, before it leaves the premises where packed or repacked, have legibly printed, stamped, stenciled or marked on one end thereof:

1. The name and address of the person, firm, corporation or association responsible for the grading and packing or repacking of the contents.
2. The true name of the variety.
3. The proper grade designation or term descriptive of the quality of the contents as set forth in the foregoing text for apples in boxes, namely, Extra Fancy, Fancy, C Grade or combination of these terms.
4. The numerical count or number of apples in the box. The Federal law (net weight amendment to the Food and Drugs Act) requires that the box also be marked either with the cubical contents, as "cubic contents, one bushell;" or the net weight as "net weight not less than 40 lbs. when packed."

A part or all of the above marks may be printed on the label if desired, but in case they are not so printed they must be stamped on the end of the box, in a space 1½ inches wide, above the label. In marking the grade term "Fancy" on the end of the box, it should be placed close enough to the left hand edge of the box so that an unscrupulous party cannot put the term "Extra" or "Ex" in front of it, or

if not so placed, it should be preceded by a heavy line.

THE STANDARD APPLE BOX

The standard size of an apple box shall be 18 inches long, 11½ inches wide, 10½ inches deep, inside measurements.

Apple box shooks are not standard unless they comply with the following dimensions:

Ends—¾ or ⅞ x 10½ x 11½, 2 pieces, 20 to the bundle.

Sides—⅜ x 10½ x 19½ or 19¾, 2 pieces, 40 to the bundle.

Top and Bottom—¼ x 5½ x 19½ or 19¾, 4 pieces, 100 to the bundle.

Cleats—⅜ x ¾ x 11½, 4 pieces, 100 to the bundle.

Thirty-two (32) 6d nails commonly used per box.

RULES FOR USE OF PAPER

Use 8x8 inch paper for 188 count and smaller.

Use 9x9 inch paper for 175 to 125 count, inclusive.

Use 10x10 inch paper for 112 to 80 count, inclusive.

Use 12x12 inch paper for 72 count and larger.

Wraps for packing 100 boxes of apples.... 50 lbs.

Lining paper for packing 100 boxes of apples 7½ lbs.

Cardboard for packing 100 boxes of apples..15-16 lbs.

Lining paper 17¾x26 inches for the standard box, runs 30 sheets to the pound.

Wrapping paper, 10x10 inches, runs 310-325 sheets to the pound. However, there is a variation in this weight due to the varying qualities of paper used.