
**NYS DEPARTMENT OF AGRICULTURE AND MARKETS
DIVISION OF FOOD SAFETY AND INSPECTION
1 WINNERS CIRCLE
ALBANY, NY 12235**



CIRCULAR 859

Rules and Regulations Relating To NEW YORK STATE APPLE GRADES

Article 13 of the Agriculture and Markets Law
with Rules and Regulations Revised

November 1993

**PROVISIONS OF AGRICULTURE AND MARKETS LAW
RELATING TO THE GRADING AND SALE OF APPLES;
EVAPORATED APPLES.**

ARTICLE 13

Section

157. Apples; closed packages; definition.

158. Apples; adoption of grades; branding.

159. Sale of apples; presumption; rules and regulations.

160. Standard evaporated apples; definition; sale of regulated.

Section 157. Apples; closed packages; definition.

The term "closed package," wherever used in this article, shall mean a barrel, box or other container, the contents of which cannot be adequately inspected without opening it.

Section 158. Apples; adoption of grades; branding.

The commissioner is hereby authorized and empowered, after investigation and public hearing, to fix and promulgate official standards for grading and classifying apples packed or repacked within the state, and to change any of them from time to time. In establishing such standards he shall take into account the factors of maturity, soundness, color and shape. The official standards so fixed and promulgated shall not be lower in their requirements than the minimum requirements of the official standards for corresponding grades of apples as promulgated from time to time by the secretary of agriculture of the United States, which standards are commonly known as the "United States grades."

Each closed package of apples, when sold, exposed for sale or transported for sale, shall be plainly and conspicuously branded to show:

- (1) Variety.
- (2) Grade.
- (3) Minimum diameter or numerical count.
- (4) Quantity of contents.
- (5) Name and address of packer or repacker.



If the true name of the variety is not known to the packer or repacker, the statement shall include the words "variety unknown" in the place of the name of the variety.

In case the branding upon any closed package of apples is changed, the person making the change shall cancel the name and address of the original packer and substitute therefor his own name and address.

Section 159. Sale of apples; presumption; rules and regulations.

1. No person shall sell, expose for sale, or transport for sale, within this state, apples in closed packages which are not branded as required by section one hundred and fifty-eight, and marked with the grade of apples in conformity with the official standards and grades for apples established and promulgated by the commissioner under provisions of this article, or with the official standards of the United States commonly known as "U.S. grades", except apples in consumer containers of ten pounds or less packed in the store, the contents of which shall conform in variety, grade, and size to a bulk display in connection therewith. Such bulk display shall be plainly and conspicuously marked as to grade, variety, minimum diameter or numerical count of the apples.

2. No person shall sell, expose for sale, or transport for sale, apples, either in open or closed packages, if the package containing them or the label on them shall bear any statement, design or device regarding the apples which shall be false or misleading in any particular.

3. No person shall sell or offer for sale, or transport for sale, in either open or closed packages, apples packed in such a manner that the face or shown surface shall not be an average of the contents of the package.

4. When apples in closed packages are delivered to a common carrier for shipment, or delivered to a storage house for storage, such delivery shall be presumptive evidence that the apples are intended for sale.

The commissioner shall adopt and promulgate such rules and regulations to supplement and give full effect to the provisions of this article as he may deem necessary.

Section 160. Standard evaporated apples, definition; sale of regulated.

1. Evaporated apples containing not more than twenty-four per centum of water or fluids shall be considered standard evaporated apples.

2. No person shall buy for resale, sell, expose or offer for sale as and for evaporated apples any evaporated apples intended to be used for food, or for consumption by any person, other than standard evaporated apples.

NEW YORK STATE STANDARDS FOR GRADES OF APPLES ¹

Official standards and rules and regulations were promulgated by the Commissioner of Agriculture and Markets and became effective December 22, 1965.

(The following standards are practically identical with the corresponding standards of apples heretofore promulgated by the Secretary of Agriculture of the United States, commonly known as "United States Standards for Grades of Apples.")

¹ Packing of the product in conformity with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal, Food Drug and Cosmetic Act, Article 17 of the Agriculture and Markets Law, or with applicable provisions of laws and regulations of other states.

PART 185 STANDARDS FOR GRADES OF APPLES

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Section 185.1 Grades.

(a) "U.S. Extra Fancy" consists of apples of one variety which are mature but not over-ripe, carefully hand-picked, clean, fairly well formed; free from decay, internal browning, internal breakdown, scald, scab, bitter pit, Jonathan spot, freezing injury, visible water core, and broken skins and bruises except those which are slight and incident to proper handling and packing. The apples are also free from injury caused by smooth net-like russeting, sunburn or sprayburn, limb rubs, hail, drought spots, scars, disease, insects, or other means; and free from damage by smooth solid, slightly rough or rough russeting, or stem or calyx cracks, and free from damage by invisible water core after January 31 of the year following the year of production. Each apple of this grade has the amount of color specified for the variety. (See color requirements and tolerances.)

(b) "U.S. Fancy" consists of apples of one variety which are mature but not over-ripe, carefully hand-picked, clean, fairly well formed; free from decay, internal browning, internal breakdown, bitter pit, Jonathan spot, scald, freezing injury, visible water core, and broken skins and bruises except those which are incident to proper handling and packing. The apples are also free from damage caused by russeting, sunburn or sprayburn, limb rubs, hail, drought spots, scars, stem or calyx cracks, disease, insects, invisible water core after January 31 of the year following the year of production or damage by other means. Each apple of this grade has the amount of color specified for the variety. (See color requirements and tolerances.)

(c) "U.S. No. 1" The requirements of this grade are the same as for U.S. Fancy except for color, russeting, and invisible water core. In this grade less color is required for all varieties with the exception of the yellow and green varieties other than Golden Delicious. Apples of this grade are free from excessive damage caused by russeting which means that apples meet the russeting requirements for U.S. Fancy as defined under the definitions of "damage by russeting," except the aggregate area of an apple which may be covered by smooth net-like russeting shall not exceed

25 percent; and the aggregate area of an apple which may be covered by smooth solid russeting shall not exceed 10 percent; provided, that in the case of the Yellow Newton or similar varieties the aggregate area of an apple which may be covered with smooth solid russeting shall not exceed 20 percent. Each apple of this grade has the amount of color specified for the variety. There is no requirement in this grade pertaining to invisible water core. (See color requirements and tolerances.)

(1) "U.S. No. 1 Early" consists of apples which meet the requirements of U.S. No. 1 grade except as to color and maturity, and meet a minimum size requirement. Apples of this grade have no color requirements, need not be mature, and are not less than 2 inches in diameter. This grade is provided for varieties such as Duchess, Gravenstein, Red June, Twenty Ounce, Wealthy, Williams, Yellow Transparent and Lodi, or other varieties which are normally marketed during the summer months. (See tolerances.)

(2) "U.S. No. 1 Hail" consists of apples which meet the requirements of U.S. No. 1 grade except that hail marks where the skin has not been broken, and well healed hail marks where the skin has been broken, are permitted, provided the apples are fairly well formed. (See color requirements and tolerances.)

(d) "U.S. Utility" consists of apples of one variety which are mature but not over-ripe, carefully hand-picked, not seriously deformed; free from decay, internal browning, internal breakdown, scald, and freezing injury. The apples are also free from serious damage caused by dirt or other foreign matter, broken skins, bruises, russeting, sunburn, or sprayburn, limb rubs, hail, drought spots, scars, stem or calyx cracks, visible water core, disease, insects, or other means. (See tolerances.)

(e) "Combination of grades".

(1) Combinations of the above grades may be used as follows:

- (i) Combination U.S. Extra Fancy and U.S. Fancy;
- (ii) Combination U.S. Fancy and U.S. No. 1;
- (iii) Combination U.S. No. 1 and U.S. Utility

(2) Combinations other than these are not permitted in connection with the U.S. apple grades. When combination grades are packed, at least 50 percent of the apples in any lot shall meet the requirements of the higher grade in the combination. (See tolerances.)



(f) "Orchard Run" consists of apples of one variety from which no apples of the U.S. Utility grade or better have been removed: Provided that, not more than a total of 15 percent of the apples in any lot may be culls. (See definition of culls.)

Section 185.2 Color requirements.

In addition to the requirement specified for the above grades, apples of these grades shall have the percentage of color specified for the variety in Table I appearing in this section. For the solid red varieties the percentage stated refers to the area of the surface which must be covered with a good shade of solid red characteristic of the variety: Provided, that an apple having color of a lighter shade of solid red or striped red than that considered as a good shade of red characteristic of the variety may be admitted to a grade, provided it has sufficient additional area covered so that the apple has as good an appearance as one with the minimum percentage of good red characteristic of the variety required for the grade. For the striped red varieties the percentage stated refers to the area of the surface in which the stripes of a good shade of red characteristic of the variety shall predominate over stripes of lighter red, green, or yellow. However, an apple having color of a lighter shade than that considered as a good shade of red

characteristic of the variety may be admitted to a grade, provided it has sufficient additional area covered so that the apple has as good an appearance as one with the minimum percentage of stripes of a good red characteristic of the variety required for the grade. Faded brown stripes shall not be considered as color except in the case of the Gray Baldwin variety.

Table I - Color Requirements for Specified U.S. Grades of Apples by Variety

Variety	U.S. Extra Fancy Percent	U.S. Fancy Percent	U.S. No. 1 Percent
Solid Red:			
Black Ben.....	66	40	25
Gano.....	66	40	25
Winesap.....	66	40	25
Other similar varieties ¹	66	40	25
Red Sport varieties ²	66	40	25
Striped or partially red:			
Jonathan.....	66	33	25
McIntosh.....	50	33	25
Cortland.....	50	33	25
Other similar varieties ³	50	33	25
Rome Beauty.....	50	33	15
Stayman.....	50	33	15
York Imperial.....	50	33	15
Baldwin.....	50	25	15
Ben Davis.....	50	25	15
Delicious.....	50	25	15
Mammoth Black Twig.....	50	25	15
Turley.....	50	25	15
Wagener.....	50	25	15
Wealthy.....	50	25	15
Willow Twig.....	50	25	15
Northern Spy.....	50	25	15
Other similar varieties ⁴	50	25	15
Hubbardston.....	50	15	10
Stark.....	50	15	10
Other similar varieties.....	50	15	10
Red June.....	50	15	(5)
Red Gravenstein.....	50	15	(5)
Williams.....	50	15	(5)
Other similar varieties.....	50	15	(5)
Gravenstein.....	25	10	(8)
Duchess.....	25	10	(5)
Other similar varieties ⁶	25	10	(5)
Red cheeked or blushed:			
Maiden Blush.....	(7)	(5)	(8)
Twenty Ounce.....	(7)	(5)	(8)
Winter Banana.....	(7)	(5)	(8)
Other similar varieties.....	(7)	(5)	(8)
Green varieties.....	(9)	(9)	(9)
Yellow varieties.....	(9)	(9)	(9)
Golden Delicious.....	(10)	(10)	(9)

- (1) Arkansas Black, Beacon, Detroit Red, Espous Spitzenberg, King David, Lowry Minjon.
- (2) When Red Sport varieties are specified as such they shall meet the color requirements specified for Red Sport varieties.
- (3) Haralson, Kendall, Macoun, Snow (Femeuse).
- (4) Bonum, Early McIntosh, Limbertwig, Milton, Nero, Paragon, Melba.
- (5) Tinge of color
- (6) Red Astrachan, Smokehouse, Summer Rambo, Dudley.
- (7) Blush Cheek.
- (8) None.
- (9) Characteristic ground color.
- (10) 75 percent or more of the surface of the apple shall show white or light green predominating over the green color.

Section 185.3 Unclassified grade and Culls.

"Unclassified" consists of apples which have not been classified in conformity with any of the foregoing grades. The terms unclassified and culls are not grades within the meaning of these standards but are provided to show that no definite grade has been applied to the lot, but each such lot must meet the following requirements:

(a) "Unclassified" consists of ungraded apples; Provided, that not more than a total of 15 percent of the apples in any lot may be culls, but not more than 1/15 of the culls, or one percent of the lot shall be allowed for apples affected by decay. (See definition of culls.)

(b) "Culls" consists lot of apples which contain more than a total of 15 percent of apples which fail to meet the requirements of U.S. Utility grade.

Section 185.4 Tolerances.

In order to allow for variations incident to proper grading and handling in each of the foregoing grades the following tolerances are provided as specified:

(a) Defects:

(1) "U.S. Extra Fancy, U.S. Fancy, U.S. No. 1, U.S. No. 1 Early and U.S. No. 1 Hail grades"; 10 percent of the apples in any lot may fail to meet the requirements of the grade, but not more than one-half of this amount, or 5 percent, shall be allowed for apples which are seriously damaged, including therein not more than 1 percent for apples affected by decay or internal breakdown.

(2) "U.S. Utility grade": 10 percent of the apples in any lot may fail to meet requirements of the grade, but not more than one-half of this amount, or 5 percent, shall be allowed for apples which are seriously damaged by insects, and including in the total tolerance not more than 1 percent for apples affected by decay or internal breakdown

(b) When applying the foregoing tolerances to combination grades no part of any tolerance shall be allowed to reduce, for the lot as a whole, the 50 percent of apples of the higher grade required in the combination but individual containers shall have not less than 40 percent of the higher grade.



(c) "Size". When size is designated by the numerical count for a container, not more than 5 percent of the apples in the lot may vary more than 1/4 inch in diameter. When size is designated by minimum or maximum diameter, not more than 5 percent of the apples in any lot may be smaller than the designated minimum and not more than 10 percent may be larger than the designated maximum.

Section 185.5 Application of tolerances.

The contents of the individual packages in the lot, are subject to the following limitations; provided that the averages for the entire lot are within the tolerances specified for the grade:

(a) Packages which contain more than 10 pounds:

(1) Shall have not more than one and one-half times a specified tolerance of 10 percent or more and not more than double a tolerance of less than 10 percent, except that at least one apple which is seriously damaged by insects or affected by decay or internal breakdown may be permitted in any package.

(b) Packages which contain 10 pounds or less:

(1) Not over 10 percent of the packages may have more than three times the tolerance specified except that at least one defective apple may be permitted in any package; provided that not more than one apple or more than 6 percent (whichever is the larger amount) may be seriously damaged by insects or affected by decay or internal breakdown.

Section 185.6 Calculation of percentages.

(a) When the numerical count is marked on the container, percentages shall be calculated on the basis of count.

(b) When the minimum diameter or minimum and maximum diameters are marked on the container, percentages shall be calculated on the basis of weight.

(c) When the apples are in bulk, percentages shall be calculated on the basis of weight.

Section 185.7 Condition after storage or transit.

(a) Decay, scald or any other deterioration which may have developed on apples after they have been in storage or transit shall be considered as affecting condition and not the grade.

Section 185.8 Packing requirements.

(a) Apples tray packed or cell packed in cartons shall be arranged according to approved and recognized methods. Packs shall be at least fairly tight¹ or fairly well filled².

¹ "Fairly tight" means that apples are of the proper size for molds or cell compartments in which they are packed, and that molds or cells are filled in such a way that no more than slight movement of apples within molds or cells is possible. The top layer of apples, or any pad or space filler over the top layer of apples shall be not more than 3/4 inch below the top edge of the carton.

² "Fairly well filled" means that the net weight of apples in containers ranging from 2,100 to 2,900 cubic inch capacity is not less than 37 pounds for Cortland, Gravenstein, Jonathan, McIntosh and Golden Delicious varieties and not less than 40 pounds for all other varieties.

(b) Closed cartons containing apples not tray or cell packed shall be fairly well filled² or the pack shall be sufficiently tight to prevent any appreciable movements of the apples.

(c) Pack in wooden boxes or baskets shall be sufficiently tight to prevent any appreciable movement of apples within containers when the packages are closed. Each wrapped apple shall be completely enclosed by its individual wrapper.

(d) Apples on the shown face of any container shall be reasonably representative in size, color and quality of the contents.

(e) "Tolerances": In order to allow for variations incident to proper packing, not more than 10 percent of the containers in any lot may fail to meet these requirements.

Section 185.9 Marking Requirements

(a) The numerical count or the minimum diameter of the apples packed in a closed container shall be indicated on the container.

(b) When the numerical count is not shown the minimum diameter shall be plainly stamped, stenciled, or otherwise marked on the container in terms of whole inches, or whole inches and not less than eighth inch fractions thereof, in accordance with the facts.

Section 185.10 Definitions

(a) "Mature" means that the apples have reached the stage of development which will insure the proper completion of the ripening process. Before a mature apple becomes over-ripe it will show varying degrees of firmness, depending upon the stage of the ripening process. The following terms are used for describing different stages of firmness of apples:

(1) "Hard" means apples with a tenacious flesh and starchy flavor.

(2) "Firm" means apples with a tenacious flesh but which are becoming crisp with a slightly starchy flavor, except the Delicious variety.

(3) "Firm ripe" means apples with crisp flesh except that the flesh of the Gano, Ben Davis, and Rome Beauty varieties may be slightly mealy.

(4) "Ripe" means apples with mealy flesh and soon to become soft for the variety.

(b) "Overripe" means apples which are dead ripe, with flesh very mealy or soft, and past commercial utility.

(c) "Carefully hand picked" means that the apples do not show evidence of rough handling or of having been on the ground.

(d) "Clean" means that the apples are free from excessive dirt, dust, spray residue and other foreign material.

(e) "Fairly well formed" means that the apple may be slightly abnormal in shape but not to an extent which detracts materially from its appearance.

(f) "Injury" means any specific defect defined in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which more than slightly detract from the appearance, or the edible or shipping quality of the apple. The following specific defects shall be considered as injury:

(1) Russeting in the stem cavity or calyx basin which cannot be seen when the apple is placed stem end or calyx end down on a flat surface shall not be considered in determining whether or not an apple is injured by russeting. Smooth net-like russeting outside of the stem cavity or calyx basin shall be considered as injury when an aggregate area of more than 10 percent of the surface is covered, and the color of the russeting shows no very pronounced contrast with the background color of the apple, or lesser amounts of more conspicuous net-like russeting when the appearance is affected to a greater extent than the above amount permitted.

(2) Sunburn or sprayburn, when the discolored area does not blend into the normal color of the fruit

(3) Dark brown or black limb rubs which affect a total area of more than one-fourth inch in diameter, except that light brown limb rubs of a russet character shall be considered under the definition of injury by russeting.³

³ The area refers to that of a circle of the specified diameter.

(4) Hail marks, drought spots, other similar depressions or scars:

- (i) When the skin is broken, whether healed or unhealed;
- (ii) When there is appreciable discoloration of the surface;
- (iii) When any surface indentation exceeds one-sixteenth inch in depth;
- (iv) When any surface indentation exceeds one-eighth inch in diameter; or,
- (v) When the aggregate affected area of such spots exceeds one-half inch in diameter.³

(5) Disease:

(i) Cedar rust infection which affects a total area of more than three-sixteenths inch in diameter.³

(ii) Sooty blotch or fly speck which is thinly scattered over more than 5 percent of the surface, or dark, heavily concentrated spots which affect an area of more than one-fourth inch in diameter.³

(iii) Red skin spots which are thinly scattered over more than one tenth of the surface, or dark, heavily concentrated spots which affect an area of more than one-fourth inch in diameter.

(6) Insects:

(i) Any healed sting or healed stings which affect a total area of more than one-eighth inch in diameter including any encircling discolored rings.³

(ii) Worm holes.

(g) "Damage" means any specific defect defined in this section; or any 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 shipping quality of the apple. The following specific defects shall be considered as damage:

(l) Russeting in the stem cavity or calyx basin which cannot be seen when the apple is placed stem end or calyx end down on a flat surface shall not be considered in determining whether or not an apple is damaged by russeting, except that excessively rough or bark like russeting in the stem cavity or calyx basin shall be considered as damage when the appearance of the apple is materially affected. The following types and amounts of russeting outside of the stem cavity or calyx basin shall be considered as damage:

(i) Russeting which is excessively rough on Roxbury Russet and other similar varieties.



(ii) Smooth net like russeting, when an aggregate area of more than 15 percent of the surface is covered, and the color of the russeting shows no very pronounced contrast with the background color of the apple, or lesser amounts of more conspicuous net-like russeting when the appearance is affected to a greater extent than the above amount permitted.

³ The area refers to that of a circle of the specified diameter.

(iii) Smooth solid russeting, when an aggregate area of more than 5 percent of the surface is

covered, and the pattern and color of the russeting shows no very pronounced contrast with the background color of the apple, or lesser amounts of more conspicuous solid russeting when the appearance is affected to a greater extent than the above amount permitted.

(iv) Slightly rough russeting which covers an aggregate area of more than one-half inch in diameter.³

(v) Rough russeting which covers an aggregate area of more than one-fourth inch in diameter.³

(2) Sunburn or sprayburn which has caused blistering or cracking of the skin, or when the discolored area does not blend into the normal color of the fruit unless the injury can be classed as russeting.

(3) Limb rubs which affect a total area of more than one-half inch in diameter, except that light brown limb rubs of a russet character shall be considered under the definition of damage by russeting.³

(4) Hail marks, drought spots, other similar depressions or scars:

(i) When any unhealed mark is present;

(ii) When any surface indentation exceeds one-eighth inch in depth;

(iii) When the skin has not been broken and the aggregate affected area exceeds one-half inch in diameter;³ or,

(iv) When the skin has been broken and well healed, and the aggregate affected area exceeds one-fourth inch in diameter.³

(5) Stem or calyx cracks which are not well healed, or well healed stem or calyx cracks which exceed an aggregate length of one-fourth inch.

(6) Invisible water core existing around the core and extending to water core in the vascular bundles; or surrounding the vascular bundles when the affected areas surrounding three or more vascular bundles meet or coalesce; or existing in more than slight degree outside the circular area formed by the vascular bundles.

(7) Disease:

(i) Scab spots which affect a total area of more than one-fourth inch in diameter.³

(ii) Cedar rust infection which affects a total area of more than one-fourth inch in diameter.³

(iii) Sooty blotch or fly speck which is thinly scattered over more than one-tenth of the surface, or dark, heavily concentrated spots which affect an area of more than one-half inch in diameter.

³ The area refers to that of a circle of the specified diameter.

(iv) Red skin spots which are thinly scattered over more than one-tenth of the

surface, or dark, heavily concentrated spots which affect an area of more than one-half inch diameter.³

(8) Insects:

(i) Any healed sting or healed stings which affect a total area of more than three-sixteenths inch in diameter including any encircling discolored rings.³

(ii) Worm holes.

(h) "Serious damage" means any defect defined 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 shipping quality of the apple. The following specific defects shall be considered as serious damage:

(1) The following types and amounts of russetting shall be considered as serious damage:

(i) Smooth solid russetting, when more than one-half of the surface in the aggregate is covered, including any russetting in the stem cavity or calyx basin, or slightly rough, or excessively rough or bark-like russetting, which detracts from the appearance of the fruit to a greater extent than the amount of smooth solid russetting permitted; provided that any amount of russetting shall be permitted on Roxbury Russet and other similar varieties.

(2) Sunburn or sprayburn which seriously detracts from the appearance of the fruit.

(3) Limb rubs which affect more than one-tenth of the surface in the aggregate.

(4) Hail marks, drought spots, or scars, if they materially deform or disfigure the fruit, or if such defects affect more than one-tenth of the surface in the aggregate; provided that no hail marks which are unhealed shall be permitted and not more than an aggregate area of one-half inch shall be allowed for well healed hail marks where the skin has been broken.³

(5) Stem or calyx cracks which are not well healed, or well healed stem or calyx cracks which exceed an aggregate length of one-half inch.

(6) Visible water core which affects an area of more than one-half inch in diameter.³

(7) Disease:

(i) Scab spots which affect a total area of more than three-fourths inch in diameter.³

(ii) Cedar rust infection which affect a total area of more than three-fourths inch in diameter.³

(iii) Sooty blotch or fly speck which affects more than one-third of the surface.

(iv) Red skin spots which affect more than one-third of the surface.

³ The area refers to that of a circle of the specified diameter.

(v) Bitter pit or Jonathan spot which is thinly scattered over more than one-tenth of the surface and does not materially deform or disfigure the fruit.

(8) Insects:

(i) Healed stings which affect a total area of more than one-fourth inch in diameter including any encircling discolored rings.³

(ii) Worm holes.

(i) "Seriously deformed" means that the apple is so badly misshapen that its appearance is seriously affected.

(j) Diameter. When measuring for minimum size, "diameter" means the greatest dimension of the apple measured at right angles to a line from stem to blossom end. When measuring for maximum size, "diameter" means the smallest dimension of the apple determined by passing the apple through a round opening in any position.

Section 185.11 Condition Standards for Export.

These standards may be applied to domestic shipments of apples as well as export lots, and may be referred to as "U.S. Condition Standards".

(a) Not more than 5 percent of the apples in any lot shall be further advanced in maturity than firm ripe.

(b) Not more than 5 percent of the apples in any lot shall be damaged by storage scab.

(c) Not more than a total of 5 percent of the apples in any lot shall be affected by scald, internal breakdown, freezing injury, or decay; or damaged by water core⁴, bitter pit, Jonathan spot, or other condition factors; provided that:

(1) not more than a total of 2 percent shall be allowed for apples affected by decay and soft scald;

(2) not more than 2 percent shall be allowed for apples affected by internal breakdown; and

(3) not more than 2 percent shall be allowed for apples affected by slight scald.

(d) Container packs shall comply with packing requirements specified in the United States Standards for Grades of Apples.

³ The area refers to that of a circle of the specified diameter.

⁴ "Damage by water core" means externally invisible water core existing around the core extending to water core in the vascular bundles; or surrounding vascular bundles when the affected areas surrounding three or more vascular bundles meet or coalesce; or existing in more than slight degree outside the circular area formed by the vascular bundles; or any externally visible water core.

(e) Any lot of apples shall be considered as meeting the U. S. Condition Standards for Export if the entire lot averages within the requirements specified; provided that no package in any lot shall have more than double the percentages specified except that for packages which contain 10

pounds or less, individual packages in any lot may have not more than three times the tolerance or one apple (whichever is the greater amount).

PART 186**RULES AND REGULATIONS RELATING TO APPLES****Section:**

- 186.1** Closed packages; definition
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- 186.10** Packaging of orchard run grade of apples

Section 186.1 Closed Packages. Definition:

Baskets with covers, burlap covered barrels, closed cartons, crates, boxes, and barrels are included in the term "closed packages", except containers of ten pounds or less packed in the store in accordance with Section 159 of the Agriculture and Markets Law.

Section 186.2 Branding.

All closed packages of apples must be plainly marked with:

- (a) The name of the variety of apples contained within the package. If the name is not known, the package shall be branded "variety unknown".
- (b) The grade of apples contained therein.
- (c) The minimum diameter or numerical count of the apples contained within the package. (The maximum size may also be stated, and it is desirable that it be included in export shipments.)
- (d) The quantity of apples contained in the package, either by weight or measure.
- (e) The name and address of the packer or person by whose authority the apples were packed and the packages marked. When the branding of any closed package of apples is changed, the person by whose authority the change is made shall cancel the name and address of the original packer and substitute therefor his own name and address.
- (f) The words "New York" or the abbreviation therefor shall also be marked upon the package, if the apples were grown in New York State.
- (g) All markings shall be clear and legible. Height of letters or numbers, indicating the grade and minimum diameter or numerical count shall be at least equal in height to all other required markings.
 - (1) For packages containing more than ten pounds net, all markings shall be in letters or numbers not less than three-eighths inch in height.

(2) For packages containing ten pounds or less, all markings shall be in letters or numbers at least one-eighth inch in height.

(3) All markings may be applied by the use of, rubber stamps or stencils or by the use of pasters or labels attached upon or inserted, face out, within a transparent package. Other marks designating private brands will be permitted, but must not include any statement conflicting with the markings required by statute or by these Rules and Regulations.

(h) United States Standards for apples for processing may be used on apples intended for canning, freezing or drying, provided the grade is preceded by the word "Processing."

Section 186.3 Deceptive Packaging and Labeling of Packages.

The law specifically prohibits the sale or transporting for sale of apples, either in open or closed packages, if the package or the label shall bear any statement, design or device which is false or misleading in any particular.

Statements such as "Fancy" on U.S. No. 1, or on any grade other than U.S. Fancy, or the use of the term "Extra Choice" on poor apples branded "Unclassified", and all similar deceptive and misleading statements are forbidden by statute.

Section 186.4 Facing.

The facing of an open or closed package with the largest, highest colored and best quality apples in the package is not permitted. It is required that the face or shown surface of the package shall be an average of the contents as to size, color and freedom from defects.

Section 186.5 Delivery to storage.

When apples in closed packages are delivered to a storage warehouse for storage, such delivery is presumptive evidence that the apples are intended for sale. The packages of apples become subject to inspection and must be properly branded. In the case of apples placed in storage for packing or processing later, the owner may file with the operator of the storage a statement in writing signed by the owner, describing the apples, indicating storage lot numbers or other definite identification, stating the number of packages, and declaring that they are either to be used for processing or are to be repacked and properly branded before shipment. Said notice is to be placed on file with the first delivery and amended with each subsequent delivery to correspond at all times with the total number of packages stored. Such a statement will be regarded by the department as overcoming in presumption that the apples are intended for sale, provided that the statement is kept continuously available for examination by representatives of the department, and that due notice is given to the department when the apples are repacked and branded.

Section 186.6 Delivery to any carrier.

Closed packages of apples delivered to a transportation company for shipment are presumed to be intended for sale, and must be packed and branded as required by law, unless the owner can prove that such apples are not intended for sale as packed.

Section 186.7 Culls.

(a) No person shall sell, expose for sale or transport for sale, except for processing or manufacturing, open packages of apples containing more than fifteen percent by weight or measure of "culls" as culls are defined in the Definition of Terms accompanying the New York State Standards for grading and classifying apples fixed and promulgated contemporaneously herewith, unless the packages be plainly and conspicuously marked with the word "Culls". This

prohibition shall not apply to apples sold by the grower on a "tree run" basis when the apples are to be repacked before resale.

(b) No apples so defined as "Culls" shall be included in any closed package of apples, except within the tolerances established for the several New York State Standard Grades for unavoidable variations incident to proper grading, sorting and handling.

Section 186.8 Bulk Displays.

A "bulk display" within the meaning of Section 159, under Article 13 of the Agriculture and Markets Law shall:

(a) be located closely adjacent to the packaged apples of which it is intended to serve as a sample and near enough to permit ready comparison.

(b) consist of a quantity of apples sufficiently and adequately representative of the number of containers displayed.

Section 186.9 Advertising.

Any advertisement of apples for sale at a given price shall plainly and conspicuously indicate and state the grade and variety of the apples so advertised.

Section 186.10 Packaging of Orchard Run Grade of Apples.

No person shall sell, expose for sale or transport for sale apples graded Orchard Run in closed packages of ten pounds or less net weight.



Article 12-A

GRADING OF FARM PRODUCTS

Section 156-dd. Controlled Atmosphere

No person shall sell or exchange or offer or expose for sale or exchange or transport for sale any fruits or vegetables represented as having been exposed to "controlled atmosphere," "modified atmosphere," alone or with other words, or shall so use any such term or form of words or symbols of similar import on any container or lot of fruits or vegetables advertised, sold, offered for sale or transported for sale within this state unless such fruits or vegetables have been kept in a room or storage building with not more than five percent

oxygen for a minimum of ninety days; provided, however, that a person may represent as having been exposed to controlled atmosphere or modified atmosphere any variety of apple stored in conformance with regulations promulgated by the commissioner prescribing shorter storage periods and particular atmospheric conditions for such variety of apple, and which take into account relevant scientific research and technology. A record on a form approved by the commissioner shall be kept at a convenient location adjacent to said room or storage building from the day of sealing to the day of opening of said room or storage building, and shall be subject to review by the commissioner or his authorized agents at any time for a period of at least one year.

EXPRESS TERMS

PART 187

RULES AND REGULATIONS

AS TO CONTROLLED ATMOSPHERE IN RELATION TO APPLES

STATUTORY AUTHORITY: 16, 18, 156-dd AND 156-f

Section

- 187.1 Definitions
- 187.2 Application only to apple rooms or storage buildings
- 187.3 Registration; assigned "CA" number
- 187.4 Daily air components determination; oxygen percentage regulated
- 187.5 Records
- 187.6 Storage of Apples
- 187.7 Sealing and reopening of controlled atmosphere rooms

Section 187.1 Definitions.

(a) "Commissioner" means the Commissioner of Agriculture and Markets of the State of New York.

(b) "Department" means the Department of Agriculture and Markets.

(c) "Person" means any individual, corporation, partnership, association or other organized group or persons, or any business entity, by whatever name designated and whether or not incorporated.

Section 187.2 Application only to apple rooms or storage buildings.

The following rules and regulations apply only to rooms or storage buildings containing apples.

Section 187.3 Registration; assigned "CA" number.

(a) Any person owning or operating a controlled atmosphere room or storage building or packers or repackers of apples coming under the provisions of Section 156-dd of the Agriculture and Markets Law shall register with the commissioner on a form prescribed by the commissioner. The registration period shall commence on August 1 and end on July 31 of each year. Owners or operators of such a room or storage building shall register on or before August 1 of each year.

(b) The commissioner shall assign each approved registrant a registration number preceded by the letters CA. This number shall be marked on all containers coming under the provisions of this Part and shall be in accordance with all provisions pertaining to the markings as set forth in any article of the Agriculture and Markets Law.

Section 187.4 Daily air components determination; oxygen percentage regulated.

Each owner or operator shall make the required air components determinations daily. The percent of oxygen shall be reduced to five percent within 20 days after date of sealing.

Section 187.5 Records.

(a) Each owner or operator shall maintain a record for each room on an approved form or forms. The records shall include owner or operator's name and address, room number, date of sealing, date of opening, capacity in bushels, lot identification, number of bushels within each lot, daily air constituents determination recordings showing date of test, time of test, percentage of oxygen, temperature and comments.

(b) Any person selling, offering for sale or transporting for sale within this State apples coming under the provisions of this section shall furnish an invoice covering the sale of such apples. Each invoice shall indicate the CA registration number assigned to the owner or owners of the controlled atmosphere room or storage building in which each lot or lots of apples included thereon were kept. Each invoice shall also include the CA number required to be marked on each container within each lot or lots of apples included thereon.

(c) Each owner or operator shall submit to the department, within 20 days after date of sealing, a report in writing, for each room showing room number, date of sealing and number of bushels contained therein.

Section 187.6 Storage of Apples.

(a) McIntosh, Cortland, Empire and Jonamac varieties may be represented as having been exposed to controlled atmosphere, provided that the controlled atmosphere rooms in which the apples are stored are filled, sealed and reduced to a five percent oxygen level within seven (7) days from the date filling begins and the apples are held in such storage for a minimum of sixty (60) days at not more than five percent oxygen.



(b) Cortland, Empire and Jonamac varieties may also be represented as having been exposed to controlled atmosphere, provided that the controlled atmosphere rooms in which the apples are stored are reduced to a five percent oxygen level within twenty (20) days from the date of sealing and the apples are held in such storage for a minimum of ninety (90) days at not more than five percent oxygen.

(c) McIntosh variety may also be represented as having been exposed to controlled atmosphere provided that the controlled atmosphere rooms in which the apples are stored are filled and sealed within fourteen (14) days from the date filling begins and are reduced to a five percent oxygen level within twenty (20) days from the date of sealing and the apples are held in such storage for a minimum of ninety (90) days at not more than five percent oxygen.

Section 187.7 Sealing and reopening of controlled atmosphere rooms.

(a) All controlled atmosphere rooms shall, upon complying with the filling, sealing and atmosphere requirements of this Part, be sealed by a department seal affixed by an authorized department representative. Any such sealed room may not be entered during the required 60 or 90-day storage period except under the following conditions.

(1) to make repairs necessary to maintain proper storage conditions, in which event the commissioner or his authorized representative shall be notified of such entry within 48 hours;

(2) for the purpose of removing apples, such entry being subject to the following requirements:

- (i) that the commissioner or his authorized representative be notified of the amount to be removed 24 hours prior to opening the room; and
 - (ii) that no apples be added during the time the room is open; and
 - (iii) that while open, the temperature of rooms containing soft varieties, such as McIntosh and Cortland, not exceed 42 degrees Fahrenheit, and of rooms containing hard varieties, such as Delicious, Rome and Stayman Winesap, not exceed 36 degrees Fahrenheit; and
 - (iv) that the oxygen content of the room be reduced to five percent or less within six days (144 hours) after the time the room is opened; and
 - (v) that no room shall be entered more than once during the required 60 or 90-day period for the purpose of removing apples.
- (b) Any room which has been entered in accord with the provisions of subdivision (a) of this section shall thereafter be resealed by an authorized department representative, and the total amount of time such room has been above five percent oxygen shall be added to the original 60 or 90-day period thereby assuring a minimum of 60 or 90 days at or below five percent oxygen.