

## IDAPA 02 – IDAHO DEPARTMENT OF AGRICULTURE

### Ag Inspections Division

#### 02.02.02 – Rules Governing Grading and Controlled Atmosphere Storage of Apples

##### **Who does this rule apply to?**

*Growers or packers of Idaho apples*

##### **What is the purpose of this rule?**

*This rule governs grades for Idaho Apples and Idaho Summer Apples, including color requirements, defects, tolerances, packing, and marking. The utilization of the industry driven and recognized Idaho Apple Grades on product containers by apple packers, allows them another uniform grade standard to better meet the needs of industry and consumers. These rules also govern registration requirements and prescribe the maximum oxygen levels for sealed controlled atmosphere (CA) storage of apples. The CA storage rule currently in place was requested and advocated by industry to ensure a level playing field with other states' CA storage rules.*

##### **What is the legal authority for the agency to promulgate this rule?**

*This rule implements the following statutes passed by the Idaho Legislature:*

- [22-702, Idaho Code](#) – Standards for Farm Products and Receptacles
- [22-802, Idaho Code](#) – Apple Grades – Annual Publication of Regulations
- [22-803, Idaho Code](#) – Certificate of Inspection

##### **Who do I contact for more information on this rule?**

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**02.02.02 – RULES GOVERNING GRADING AND CONTROLLED  
ATMOSPHERE STORAGE OF APPLES**

**000. LEGAL AUTHORITY.**

This chapter is adopted under the legal authority of Sections 22-702, 22-802, and 22-803 Idaho Code. (3-20-20)

**001. TITLE AND SCOPE.**

**01. Title.** The title of this chapter is IDAPA 02.02.02, “Rules Governing Grading and Controlled Atmosphere Storage of Apples.” (3-20-20)

**02. Scope.** These rules govern the criteria and grades for Idaho Apples and Idaho Summer Apples, including color requirements, defects, tolerances, packing, and marking. These rules also govern registration requirements and prescribe the maximum oxygen levels for sealed controlled atmosphere storage of apples. (3-20-20)

**002. -- 009. (RESERVED)**

**010. DEFINITIONS.**

The following definitions apply in the interpretation and enforcement of this chapter: (3-20-20)

**01. Carefully Hand-Picked.** Apples do not show evidence of rough handling or of having been on the ground. (3-20-20)

**02. Clean.** Apples are free from excessive dirt, dust, spray residue and other foreign material. (3-20-20)

**03. Fairly Well Formed.** Apple may be slightly abnormal in shape but not to an extent that detracts materially from its appearance. (3-20-20)

**04. Lot.** Any group of containers of apples from one (1) grower or orchard and of one (1) variety and that is set apart or is separate from any other group or groups by some evidence such as a lot number or similar mark of identification. (3-20-20)

**05. Mature.** Apples have reached the stage of development that will ensure the proper completion of the ripening process. Before a mature apple becomes overripe, 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: (3-20-20)

**a.** “Hard” means apples with a tenacious flesh and starchy flavor. (3-20-20)

**b.** “Firm” means apples with a tenacious flesh, but that are becoming crisp with a slightly starchy flavor, except the Delicious variety. (3-20-20)

**c.** “Firm ripe” means apples with crisp flesh except that the flesh of the Gano, Ben Davis, and Rome Beauty varieties may be slightly mealy. (3-20-20)

**d.** “Ripe” means apples with mealy flesh and soon to become soft for the variety. (3-20-20)

**06. Overripe.** Apples that are dead ripe, with flesh very mealy or soft, and past commercial utility. (3-20-20)

**07. Packer or Repacker.** A person other than an owner or operator of a controlled atmosphere storage plant who removes apples from the containers in which they were treated and places them into other containers or replaces them into the original containers. (3-20-20)

**08. Seriously Deformed.** Apple is so badly misshapen that its appearance is seriously affected. (3-20-20)

**011. -- 119. (RESERVED)**

SUBCHAPTER A – APPLE GRADES

120. GRADES.

**01. Idaho Extra Fancy.** “Idaho Extra Fancy” consists of apples of one (1) variety that are mature but not overripe except that Red Delicious and Delicious are not further advanced in maturity than “Firm ripe” as defined in Subsection 010.05.c. All “Idaho Extra Fancy” apples are to be carefully hand-picked, clean, fairly well formed; free from decay, internal browning, internal breakdown, scald, bitter pit, scab, Jonathan spot, freezing injury, visible water core, and broken skins and bruises except those that are slight and incident to proper handling and packing. The apple is also free from injury caused by smooth net-like russetting, 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 russetting, or stem or calyx cracks, and free from damage by invisible water core after January 31st of the year following the year of production. Each apple of this grade has the amount of color specified in Section 121 for the variety. (3-20-20)

**02. Idaho Fancy.** “Idaho Fancy” consists of apples of one (1) variety that are mature but not overripe except that Red Delicious and Delicious are not further advanced in maturity than “Firm ripe” as defined in Subsection 010.05.c. All “Idaho Fancy” apples shall be 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 that are incident to proper handling and packing. The apples are also free from damage caused by russetting, sunburn or sprayburn, limb rubs, hail, drought spots, scars, stem or calyx cracks, disease, insects, invisible water core after January 31st of the year following the year of production, or damage by other means. Each apple of this grade has the amount of color specified in Section 121 for the variety. (3-20-20)

**03. Idaho No. 1.** The requirements of this grade are the same as for “Idaho Fancy” except for color, russetting, 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 russetting, which means that apples meet the russetting requirements for “Idaho Fancy” as defined under the definitions of “damage by russetting,” except the aggregate area of an apple that may be covered by smooth net-like russetting does not exceed twenty-five percent (25%); and the aggregate area of an apple that may be covered by smooth solid russetting does not exceed ten percent (10%): Provided, that in the case of the Yellow Newtown or similar varieties the aggregate area of an apple that may be covered with smooth solid this grade has the amount of color specified in Subsection 010.05.c. for the variety. There is no requirement in this grade pertaining to invisible water core. (3-20-20)

**a.** Idaho No. 1 Early consists of apples that meet the requirements of Idaho 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, grade is provided for varieties such as Duchess, Gravenstein, Red June, Twenty Ounce, Wealthy, Williams, Yellow Transparent, and Lodi, or other varieties that are normally marketed during the summer months. (3-20-20)

**b.** Idaho No. 1 Hail consists of apples that meet the requirements of Idaho 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. (3-20-20)

**04. Idaho Utility.** “Idaho Utility” consists of apples of one (1) variety that are mature but not overripe, 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, russetting, sunburn or sprayburn, limb rubs, hail, drought spots, scars, stem or calyx cracks, visible water core, disease, insects, or other means. (3-20-20)

**05. Combination Grades.** (3-20-20)

**a.** Combinations of the above grades may be used as follows: (3-20-20)

**i.** Combination Idaho Extra Fancy and Idaho Fancy; (3-20-20)

- ii Combination Idaho Fancy and Idaho No. 1; (3-20-20)
- iii. Combination Idaho No. 1 and Idaho Utility; (3-20-20)

**b.** Combinations other than these are not permitted in connection with the Idaho apple grades. When combination grades are packed, at least fifty percent (50%) of the apples in any lot will meet the requirements of the higher grade in the combination. (3-20-20)

**121. COLOR REQUIREMENTS.**

In addition to the requirement specified for the grades set forth in Subsections 120.01 through 120.05, apples of these grades have the percentage of color specified for the variety in Table I appearing below. For the solid red varieties, the percentage stated refers to the area of the surface that 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 predominates 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 are not considered as color except in the case of the Gary Baldwin variety. Color standards will be determined by Official USDA Visual Aids for apples. APL-CC-1

**Table 1 – Color Requirements for Specified Idaho Grades of Apples by Variety**

VARIETY	IDAHO EXTRA FANCY PERCENT	IDAHO FANCY PERCENT	IDAHO NO. 1 PERCENT
ALL SOLID RED VARIETIES:	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

VARIETY	IDAHO EXTRA FANCY PERCENT	IDAHO FANCY PERCENT	IDAHO NO. 1 PERCENT
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)
<b>RED CHEEKED OR BLUSHED:</b>			
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)
<p>(1) Arkansas Black, Beacon, Detroit Red, Esopus Spitzenburg, 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 (Fameuse).  (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) Seventy-five (75%) percent or more of the surface of the apple shall show white or light green predominating over the green color.</p>			

(3-20-20)

**122. UNCLASSIFIED DESIGNATION.**

“Unclassified” consists of apples that have not been classified in conformity with any of the foregoing grades. The term “unclassified” is not a grade within the meaning of these standards, but is provided as a designation to show that no definite grade has been applied to the lot. (3-20-20)

**123. 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: (3-20-20)

**01. Defects.** (3-20-20)

**a.** Idaho Extra Fancy, Idaho Fancy, Idaho No. 1, Idaho No. 1 Early and Idaho No. 1 Hail grades: Ten percent (10%) of the apples in any lot may fail to meet the requirements of the grade, but not more than one-half (1/2) of this amount, or five percent (5%), is allowed for apples that are seriously damaged, including therein not more than one percent (1%) for apples affected by decay or internal breakdown. (3-20-20)

**b.** Idaho Utility grade: Ten percent (10%) of the apples in any lot may fail to meet the requirements of the grade, but not more than one-half (1/2) of this amount, or five percent (5%), is allowed for apples that are seriously damaged by insects, and including in the total tolerance not more than one percent (1%) for apples affected by decay or internal breakdown. (3-20-20)

**02. Applying Tolerances to Combination Grades.** When applying tolerances to combination grades, no part of any tolerance is allowed to reduce, for the lot as a whole, the fifty percent (50%) of apples of the higher grade required in the combination but individual containers will not have less than forty percent (40%) of the higher grade. (3-20-20)

**03. Size.** When size is designated by the numerical count for a container, not more than five percent (5%) of the apples in the lot may vary more than one fourth (1/4) inch in diameter. When size is designated by minimum or maximum diameter, not more than five percent (5%) of the apples in any lot may be smaller than the designated minimum and not more than ten percent (10%) may be larger than the designated maximum. (3-20-20)

**04. Firmness.** Not more than five percent (5%) of the apples in any lot of Red Delicious and Delicious varieties can be further advanced in maturity than “Firm ripe” as defined in Subsection 010.05.c. Provided, the Idaho No. 1, Idaho No. 1 Hail, and Idaho Utility grades are exempt from this requirement. (3-20-20)

**124. APPLICATION OF TOLERANCES.**

The contents of individual samples in the lot are subject to the following limitation, provided that the averages for the entire lot are within the tolerances specified for the grade: (3-20-20)

**01. Samples That Contain More Than Ten (10) Pounds.** Not more than one and one-half (1 1/2) times a specified tolerance of ten percent (10%) or more and not more than double a tolerance of less than ten percent (10%), except that at least one (1) apple that is seriously damaged by insects or affected by decay or internal breakdown may be permitted in any sample. (3-20-20)

**02. Samples That Contain Ten (10) Pounds or Less.** Not over ten percent (10%) of the sample may have more than three (3) times the tolerance specified, except that at least one (1) defective apple may be permitted in any sample: Provided, that not more than one (1) apple or more than six percent (6%) (whichever is the larger amount) may be seriously damaged by insects or affected by decay or internal breakdown. (3-20-20)

**125. CALCULATION OF PERCENTAGES.**

**01. When Numerical Count is Marked On Container.** Percentages are calculated on the basis of count. (3-20-20)

**02. When Minimum Diameter or Minimum and Maximum Diameters are Marked on Container.** Percentages are calculated on the basis of weight. (3-20-20)

03. Apples are in Bulk. Percentages are calculated on the basis of weight. (3-20-20)

**126. CONDITION AFTER STORAGE OR TRANSIT.**

Decay, scald, or any other deterioration that may have developed on apples after they have been in storage or transit are considered as affecting condition and not the grade. (3-20-20)

127. -- 129. (RESERVED)

**130. PACKING REQUIREMENTS.**

01. Tray or Cell Packed. Apples in cartons are arranged according to approved and recognized methods. Packs are to be at least fairly tight or fairly well filled. (3-20-20)

a. "Fairly tight" 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 is to be not more than three-fourths (3/4) inch below the top of the carton. (3-20-20)

b. "Fairly well filled" means that the net weight of apples in containers ranging from two thousand one hundred cubic inches (2,100 cu. in.) to two thousand nine hundred cubic inches (2,900 cu. in.) capacity is not less than thirty seven (37) pounds for Courtland, Gravenstein, Jonathan, McIntosh and Golden Delicious varieties and not less than forty (40) pounds for all other varieties. (3-20-20)

02. Closed Cartons. Apples not tray or cell packed are fairly well filled or the pack is sufficiently tight to prevent any appreciable movement of the apples. (3-20-20)

03. Wooden Boxes or Baskets Packs. Sufficiently tight to prevent any appreciable movement of apples within containers when the packages are closed. Each wrapped apple is to be completely enclosed by its individual wrapper. (3-20-20)

04. Reasonably Representative. Apples on the shown face of any container are reasonably representative in size, color, and quality of the contents. (3-20-20)

05. Tolerances. In order to allow for variations incident to proper packing, not more than ten percent (10%) of the containers in any lot may fail to meet these requirements. (3-20-20)

**131. MARKING REQUIREMENTS.**

The numerical count or the minimum diameter of the apples packed in a closed container is indicated on the container. (3-20-20)

01. When Numerical Count is not Shown. The minimum diameter will be plainly stamped, stenciled, or otherwise marked on the container in terms of whole inches, or whole inches and not less than one eighth (1/8) inch fractions thereof. (3-20-20)

02. The Word "Minimum". Or its abbreviation, when following a diameter size marking, means that the apples are of the size marked or larger. (3-20-20)

**132. SCORABLE DEFECTS.**

01. Injury. Any specific defect defined in this subsection or an equally objectionable variation of any one (1) of these defects, any other defect, or any combination of defects, that more than slightly detracts from the appearance or the edible or shipping quality of the apple. The following specific defects are considered as injury: (3-20-20)

a. Russetting in the stem cavity or calyx basin that cannot be seen when the apple is placed stem end or calyx end down on a flat surface, is not considered in determining whether or not an apple is injured by russetting.



Smooth net-like russeting outside of the stem cavity or calyx basin is considered as injury when an aggregate area of more than ten percent (10%) 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. (3-20-20)

- b. Sunburn or sprayburn, when the discolored area does not blend into the normal color of the fruit. (3-20-20)
  - c. Dark brown or black limb rubs that affect a total area of more than one-fourth (1/4) inch in diameter, except that light brown limb rubs of a russet character are considered under the definition of injury by russeting. The area refers to that area of a circle of the specified diameter. (3-20-20)
  - d. Hail marks, drought spots, other similar depressions or scars. (3-20-20)
    - i. When the skin is broken, whether healed or unhealed; (3-20-20)
    - ii. When there is appreciable discoloration of the surface; (3-20-20)
    - iii. When any surface indentation exceeds one-sixteenth (1/16) inch in depth; (3-20-20)
    - iv. When any surface indentation exceeds one-eighth inch (1/8) in diameter; or (3-20-20)
    - v. When the aggregate affected area of such spots exceeds one-half (1/2) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
  - e. Disease. (3-20-20)
    - i. Cedar rust infection that affects a total area of more than three-sixteenths (3/16) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
    - ii. Sooty blotch or fly speck that is thinly scattered over more than five percent (5%) of the surface, or dark, heavily concentrated spots that affect an area of more than one-fourth (1/4) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
    - iii. Red skin spots that are thinly scattered over more than one-tenth (1/10) of the surface, or dark, heavily concentrated spots that affect an area of more than one-fourth (1/4) inch in diameter. (3-20-20)
  - f. Insects. (3-20-20)
    - i. Any healed sting or healed stings that affect a total area of more than one-eighth (1/8) inch in diameter including any encircling discolored rings. The area refers to that of a circle of the specified diameter. (3-20-20)
    - ii. Worm holes. (3-20-20)
- 02. Damage.** Any specific defect defined in this subsection or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, that materially detracts from the appearance, or the edible or shipping quality of the apple. The following specific defects are considered damage: (3-20-20)
- a. Russeting in the stem cavity or calyx basin that cannot be seen when the apple is placed stem end or calyx end down on a flat surface, is not 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 are considered as damage: (3-20-20)
    - i. Russeting that is excessively rough on Roxbury Russet and other similar varieties. (3-20-20)

- ii. Smooth net-like russeting, when an aggregate area of more than fifteen percent (15%) 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. (3-20-20)
- iii. Smooth solid russeting, when an aggregate area of more than five percent (5%) 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 appearances affected to a greater extent than the above amount permitted. (3-20-20)
- iv. Slightly rough russeting that covers an aggregate area of more than one-half (1/2) inch in diameter. (3-20-20)
- v. Rough russeting that covers an aggregate area of more than one-fourth (1/4) inch in diameter. (3-20-20)
- b. Sunburn or sprayburn that 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. (3-20-20)
- c. Limb rubs that affect a total area of more than one-half (1/2) inch in diameter, except that light brown limb rubs of a russet character are considered under the definition of damage by russeting. (3-20-20)
- d. Hail marks, drought spots, other similar depressions or scars. (3-20-20)
  - i. When any unhealed mark is present; (3-20-20)
  - ii. When any surface indentation exceeds one-eighth (1/8) inch in depth; (3-20-20)
  - iii. When the skin has not been broken and the aggregate affected area exceeds one-half (1/2) inch in diameter. The area refers to that of a circle of the specified diameter; or (3-20-20)
  - iv. When the skin has been broken and well healed, and the aggregate affected area exceeds one-fourth (1/4) inch in diameter. (3-20-20)
- e. Stem or calyx cracks that are not well healed, or well healed stem or calyx cracks that exceed an aggregate length of one-fourth (1/4) inch. (3-20-20)
- f. Invisible water core existing around the core and extending to water core in the vascular bundles; or surrounding the vascular bundles when the affected area surrounding three (3) or more vascular bundles meet or coalesce; or existing in more than slight degree outside the circular area formed by the vascular bundles. (3-20-20)
- g. Disease. (3-20-20)
  - i. Scab spots that affects a total area of more than one-fourth (1/4) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
  - ii. Cedar rust infection that affects a total area of more than one-fourth (1/4) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
  - iii. Sooty blotch or fly speck that is thinly scattered over more than one-tenth (1/10) of the surface, or dark, heavily concentrated spots that affect an area of more than one-half (1/2) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
  - iv. Red skin spots that are thinly scattered over more than one-tenth (1/10) of the surface, or dark, heavily concentrated spots that affect an area of more than one-half (1/2) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)

- h.** Insects. (3-20-20)

  - i.** Any healed sting or healed stings that affect a total area of more than three-sixteenths ( $3/16$ ) inch in diameter including any encircling discolored rings. The area refers to that of a circle of the specified diameter. (3-20-20)
  - ii.** Worm holes. (3-20-20)
- 03. Serious Damage.** Any specific defect defined in this subsection or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects that seriously detracts from the appearance, or the edible or shipping quality of the apple. The following specific defects are considered as serious damage: (3-20-20)

  - a.** The following types and amounts of russeting are considered as serious damage: Smooth solid russeting, when more than one-half ( $1/2$ ) of the surface in the aggregate is covered, including any russeting in the stem cavity or calyx basin, or slightly rough, or excessively rough or bark-like russeting, that detracts from the appearance of the fruit to a greater extent than the amount of smooth solid russeting permitted: Provided, that any amount of russeting is permitted on Roxbury Russet and other similar varieties. (3-20-20)
  - b.** Sunburn or sprayburn that seriously detracts from the appearance of the fruit. (3-20-20)
  - c.** Limb rubs that affect more than one-tenth ( $1/10$ ) of the surface in the aggregate. (3-20-20)
  - d.** Hail marks, drought spots, or scars, if they materially deform or disfigure the fruit, or if such defects affect more than one-tenth ( $1/10$ ) of the surface in the aggregate: Provided, that no hail marks that are unhealed are permitted and not more than an aggregate area of one-half ( $1/2$ ) inch is allowed for well healed hail marks where the skin has been broken. The area refers to that of a circle of the specified diameter. (3-20-20)
  - e.** Stem or calyx cracks that are not well healed, or well healed stem or calyx cracks that exceed an aggregate length of one-half ( $1/2$ ) inch. (3-20-20)
  - f.** Visible water core that affects an area of more than one-half ( $1/2$ ) inch in diameter. (3-20-20)
  - g.** Disease. (3-20-20)

    - i.** Scab spots that affect a total area of more than three-fourths ( $3/4$ ) inch in a circle of the specified diameter. (3-20-20)
    - ii.** Cedar rust infection that affects a total area of more than three-fourths ( $3/4$ ) inch in diameter. The area refers to that of a circle of the specified diameter. (3-20-20)
    - iii.** Sooty blotch or fly speck that affects more than one-third ( $1/3$ ) of the surface. (3-20-20)
    - iv.** Red skin spots that affect more than one-third ( $1/3$ ) of the surface. (3-20-20)
    - v.** Bitter pit or Jonathan spot that is thinly scattered over more than one-tenth ( $1/10$ ) of the surface and does not materially deform or disfigure the fruit. (3-20-20)
  - h.** Insects. (3-20-20)

    - i.** Healed stings that affect a total area of more than one-fourth ( $1/4$ ) inch in diameter including any encircling discolored rings. The area refers to that of a circle of the specified diameter. (3-20-20)
    - ii.** Worm holes. (3-20-20)

**133. DIAMETER.**

When measuring for minimum size, “diameter” means the greatest 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. (3-20-20)

**134. IDAHO CONDITION STANDARDS.**

These standards may be applied to domestic shipments of apples, and may be referred to as “Idaho Condition Standards.” (3-20-20)

**01. Maturity.** Not more than five percent (5%) of the apples in any lot are further advanced in maturity than firm ripe. (3-20-20)

**02. Storage Scab.** Not more than five percent (5%) of the apples in any lot are damaged by storage scab. (3-20-20)

**03. Affected by Condition Factors.** Not more than a total of five percent (5%) of the apples in any lot are affected by scald, internal breakdown, freezing injury, or decay; or damaged by water core, bitter pit, Jonathan spot, or other condition factors: NOTE: “Damage by water core” means externally 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 (3) 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. Provided, that: (3-20-20)

**a.** Not more than a total of two percent (2%) is allowed for apples affected by decay and soft scald; (3-20-20)

**b.** Not more than two percent (2%) is allowed for apples affected by internal breakdown; and (3-20-20)

**c.** Not more than two percent (2%) is allowed for apples affected by slight scald. (3-20-20)

**04. Container Packs.** Will comply with packing requirements specified in Section 130 of this chapter. (3-20-20)

**05. Tolerances.** Any lot of apples is considered as meeting the Idaho Condition Standards if the entire lot averages within the requirements specified: Provided, that no package in any lot has more than double the percentages specified, except that for packages that contain ten (10) pounds or less, individual packages in any lot may have not more than three (3) times the tolerance or one (1) apple (whichever is the greater amount). (3-20-20)

**135. -- 149. (RESERVED)**

**150. SUMMER APPLES.**

Summer apples are defined as all apples such as Early McIntosh, Beacon, Tydeman Red, Lodi, Yellow Transparent, and all other similar varieties ripening before Jonathans; excluding Jonathans, Arkansas Black, Spitzenburg, King David, Winesap, Red Sport varieties, Delicious Stayman, Vanderpool, Black Twig, McIntosh and Rome Beauty. Note: Winter Banana variety may also be packed under Summer Grades. (3-20-20)

**151. SUMMER APPLE GRADES.**

**01. Idaho Summer Extra Fancy.** Apples of one (1) variety that are mature, hand-picked, clean, sound, fairly well formed and free from visible watercore, broken skin and from damage caused by insects, disease, mechanical injury or other causes. Each apple has the amount of color hereinafter specified for apples in this grade. Caution: To be certified on an Export Form Certificate, all apples must meet U.S. No. 1 grade requirements. (3-20-20)

**a.** “Fairly well formed” means that the apple has the normal shape one-half (1/2) of the apple may deviate slightly or that the apple may be slightly flattened as by frost injury. (3-20-20)

**b.** “Damage” means any defect that materially affects the appearance or the edible or shipping

- qualities of the apple. (3-20-20)
- c. The following are not considered damage. (3-20-20)
    - i. Slight handling bruises or box bruises, such as are incidental to good commercial handling in the preparation of a tight pack. (3-20-20)
    - ii. Sunburn or sprayburn when the normal color of the apple is not seriously affected, and there is no blistering or cracking of the skin, and the discolored area blends into the normal coloring of the apple. (3-20-20)
    - iii. Dark colored limb rubs not to exceed one-half (1/2) inch in the aggregate area. Limb rubs of a light brown or russet character are governed by the definition covering solid russetting. (3-20-20)
    - iv. Smooth russetting at the stem or calyx end provided that such russetting is not visible for more than one-half (1/2) inch when the apple is placed with the russet end down on a flat surface. (3-20-20)
    - v. Smooth net-like russetting that does not cover an aggregate area of more than ten percent (10%) of the surface and net-like russetting on the colored portions of the apple that does not materially detract from its appearance are not counted in computing the ten percent (10%) mentioned above. (3-20-20)
    - vi. Hail marks, drought spots or other similar depressions or scars where there is no appreciable discoloration, except as later noted, other than russetting, or when any individual indentation does not exceed one-fourth (1/4) inch in diameter or the total area affected does not exceed one-fourth (1/4) inch in diameter. One discolored unbroken area not to exceed one-eighth (1/8) inch in diameter is allowed. (3-20-20)
    - vii. Scab spots affecting an aggregate area not to exceed three-eighths (3/8) inch in diameter. (3-20-20)
    - viii. Any healed stings affecting an aggregate area not to exceed three-sixteenths (3/16) inch in diameter. (3-20-20)
    - ix. Slight aphid sign on thrip marks that do not roughen or pebble the surface of the apple. (3-20-20)
    - x. Any defect or defects not listed above that affect the appearance or quality of the apple not more than the defects listed above. (3-20-20)

**02. Quality of Idaho Summer Fancy Apples.** Idaho Summer Fancy Apples consist of apples of one (1) variety that are mature, hand-picked, sound, not badly misshapen and free from visible watercore, serious damage caused by insects, disease, mechanical injuries or other causes, and free from soft bruises or broken skin (except that apples may have skin punctures not exceeding one-fourth (1/4) inch diameter). (3-20-20)

**03. Combination Idaho Extra Fancy and Fancy.** In Summer Apple Grades, when Extra Fancy and Fancy are packed together, the boxes may be marked "Combination Idaho Summer Extra Fancy and Fancy." The package must contain at least fifty percent (50%) of the Extra Fancy Grade. Tray packs are to be well filled, having not less than thirty-six (36) pounds net weight of apples. (3-20-20)

**152. SCORABLE DEFECTS OF SUMMER APPLES.**

**01. Punctured Apples.** CAUTION: Punctured apples do not meet the requirements of the Export Apple Act and cannot be certified on an export certificate. Each apple will have the amount of color hereinafter specified for apples of this grade. (3-20-20)

**02. Not Badly Misshapen.** The apple may be more irregularly misshapen than defined above, but must not be deformed to the extent of materially affecting its utility or general appearance. (3-20-20)

**03. Serious Damage.** Any injury or defect or a combination thereof that seriously detracts from the appearance of the apple. The following are not considered serious damage: (3-20-20)

- a. Sunburn or sprayburn that does not seriously detract from the appearance of the apple. (3-20-20)
- b. Limb rubs affecting an aggregate area not to exceed three-fourths (3/4) inch. (3-20-20)
- c. Smooth solid russeting affecting an area of not more than one-half (1/2) the surface in the aggregate, including russeting of the stem basin, or bark-like russeting that does not seriously detract from the appearance of the apple. (3-20-20)
- d. Growth cracks when no crack exceeds one-half (1/2) inch in length. (3-20-20)
- e. Hail marks, drought spots or other similar depressions that do not exceed an aggregate area of ten percent (10%) of the surface. Slight injury means that no individual area may exceed three-fourths (3/4) inch in diameter of discolored area. The discolored area may be a light brown or black or may be a russeted area, and the skin may or may not be broken; if broken, the area must be well healed. (3-20-20)
- f. Scab spots affecting an aggregate area not to exceed three-fourths (3/4) inch. (3-20-20)
- g. Not to exceed two (2) stings, each having an encircling hard ring or slight depression, providing no sting exceeds one-eighth (1/8) inch in diameter, exclusive of any encircling ring. (3-20-20)
- h. Aphis pebbling or thrip marks not seriously affecting the appearance of the apple. (3-20-20)
- i. Any defect or defects not listed above that does not affect the appearance of the apple more than the defects listed above. (3-20-20)

**153. COLOR REQUIREMENTS FOR SUMMER APPLES.**

For the Idaho Summer Apple Grades, the color percentage listed below refers to color of blush, shades of red, or stripes of red characteristic of the variety. For green and yellow varieties, no color is required in Extra Fancy or Fancy.

**Characteristic Table**

Extra Fancy	Fancy
33 1/3%	15%

(3-20-20)

154. -- 219. (RESERVED)

**SUBCHAPTER B – CONTROLLED ATMOSPHERE STORAGE**

**220. APPLES, CONTROLLED ATMOSPHERE REGISTRATION.**

**01. Registration.** Any person who owns or operates a controlled atmosphere room or storage building for apples in Idaho, and any person who engages in this State in the business of packing or repacking apples so treated in this State or any other state and who intends to, or does, represent such apples as having been exposed to “controlled atmosphere” storage, shall register with the Director on a form prescribed by the Director. (3-20-20)

**02. Registration Period.** The registration period for owners or operators of controlled atmosphere rooms or storage buildings in this State commences on September 1 and end on August 31 of each year, and for packers or repackers of apples that have been held in a controlled atmosphere room or storage building in this State or in any other state, the registration period extends for a period not to exceed one (1) year. Owners or operators of such rooms or storage buildings shall register on or before September 1 of each year. (3-20-20)

**03. Interstate Registration.** Any person who owns or operates a controlled atmosphere room or storage building located outside of Idaho or who engages at a place outside of this State in the business of packing or

repacking apples that have been held in controlled atmosphere storage and who intends to, or does, market in the state of Idaho apples so treated and represented as having been exposed to “controlled atmosphere” storage, shall register with the Director in the same manner as required of any person within the State unless such person has registered with the proper authorities in the state of origin and has been assigned a comparable registration number or CA identification under authority of laws or rules of such state that at least conform to the provisions of these rules. (3-20-20)

**04. Written Agreement.** The Director will assign each approved registrant a registration number preceded by the letters CA. The Director shall require from each applicant for registration, an agreement in writing in the form required by the Director that the apples so treated or packed or repacked by said applicant will be or have been kept in a room or storage building with not more than five percent (5%) oxygen for a minimum of not less than forty-five (45) days for Gala and Jonagold varieties and not less than sixty (60) days for other apples, and that the oxygen level in such room or storage building will be or has been reduced to five percent (5%) within twenty (20) days after the date of sealing of the storage room, and including any other pertinent facts as may be required by the Director to assure that the apples in question have been so treated. (3-20-20)

**05. Refusal Upon Violation.** The Director may refuse to approve an application for registration and refuse to issue a registration number if the applicant previously has violated any of the provisions of these rules, or has failed or refused to furnish the information or evidence required by these rules. (3-20-20)

**06. Required Air Components Determinations.** Each owner or operator of a controlled atmosphere room or storage building in this state shall make the required air components determinations as to the percentage of carbon dioxide and oxygen and temperature at least once each day and maintains a record in the form as required by the Director of Agriculture, including the name and address of the owner or operator, room number or numbers, room capacity, lot identification, quantity in each lot, date of sealing, date of opening; a daily record of date and time of test, percentage of carbon dioxide, percentage of oxygen and the temperature. (3-20-20)

**07. Written Reports.** Each owner or operator of a controlled atmosphere room or storage building in this state will submit to the Idaho Director of Agriculture, within ten (10) days after the date of sealing, a written report pertaining to each room showing the owner's room number, or numbers, date of sealing, and variety and quantity of apples contained therein. (3-20-20)

**08. Maintaining Identity.** The identity of all apples represented as having been exposed to “controlled atmosphere” storage will be maintained from the original room or storage building where they were treated through the various channels of trade to the retailer. (3-20-20)

**09. Investigations.** Enforcing officers may investigate and examine records and invoices relating to any transactions in order to determine the identity of apples represented as having been exposed to controlled atmosphere storage and in this connection gives consideration to the presence of CA storage registration numbers on invoices submitted in transactions by the owners or operators and a combination of both the CA storage and packer or repacker's CA registration number on invoices submitted in transactions by said packer or repacker. (3-20-20)

**221. APPLES REPRESENTED AS HAVING BEEN EXPOSED TO “CONTROLLED ATMOSPHERE” STORAGE.**

**01. Registration Number -- Owner/Operator.** Each container and consumer package of such apples moved into the channels of trade by the owner or operator of a controlled atmosphere room or storage building located in Idaho or by any other person, will be marked with said owner or operator's assigned registration number. (3-20-20)

**02. Registration Number -- Packer/Repacker.** Each container and consumer package of such apples received from an owner or operator of a controlled atmosphere room or storage building located either in Idaho or in another state and that are packed or repacked by another person in this state, will be marked with the said packer or repacker's assigned registration number. (3-20-20)

**03. Controlled Atmosphere (CA) Identification.** Each container and consumer package of such apples moved into the channels of trade in Idaho by the owner or operator of a controlled atmosphere room or storage

building located outside of Idaho or by any other person or by a packer or repacker of such apples engaged in such business outside of Idaho will be marked with the proper registration number or CA identification. Such registration number or CA identification is the registration number assigned by the Director to such owner or operator of a CA plant or to such packer or repacker as the case may be or a comparable registration number or identification assigned under authority of laws or regulations of another state that at least conform to the provisions of Subsection 200.04 above. (3-20-20)

**04. Labeling Requirements.** The registration number or other identification required to be marked on containers is in letters or figures at least one-half (1/2) inch in height, and all such markings are clear and conspicuous and in a place readily visible to the purchaser, and shall meet the rule requirements of Sections 22-801 and 22-802, Idaho Code. (3-20-20)

**05. Inspection and Certification.** All apples sold as Controlled Atmosphere apples must be inspected and certified as to grade and condition and be marked with a state lot number in addition to the CA number. (3-20-20)

**06. Conditions and Standards.** At the time of shipment, all apples shipped and marked with a CA number will meet the U.S. condition and maturity standards for Export. (3-20-20)

**07. Reinspection.** Apples not shipped within a period of two (2) weeks after inspection and certification must be reinspected. (3-20-20)

**08. Failure to Meet Requirements.** Failure to meet any one of the requirements noted above will prohibit such apples from being sold as CA storage apples or the containers marked as such. (3-20-20)

**222. -- 999. (RESERVED)**



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