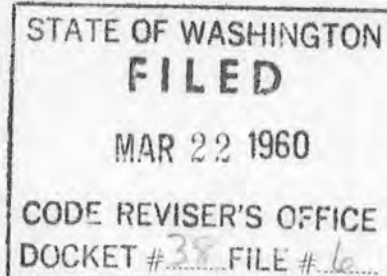


STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
Walter J. Robinson, Director

DIVISION OF HORTICULTURE
J. I. Griner, Supervisor

ORDER No. 188.



WASHINGTON STANDARDS FOR PACKED PEARS. (As adopted at Grade and Pack Conference on May 22, 1931.)

Extra Fancy, or First Grade shall consist of pears of one variety which are mature, hand picked, clean, well formed, sound, and free from drouth spot, cork spot, and visible black end, and from damage caused by broken skin, bruises, limbrubs, sunburn, sprayburn, hail marks, russeting, disease, insects, mechanical or other means.

Definition of terms.

"Mature" means having reached the stage of maturity which will insure a proper completion of the ripening process. Firmness of flesh shall be considered only in connection with other factors to determine the degree of maturity.

"Hand picked". Pears shall be considered hand picked unless they show evidence of rough handling or of having been on the ground.

"Clean" means reasonably free from dust, dirt, or honey dew.

"Well formed" means having the shape characteristic of the variety; and is further defined by variety as follows:

Bartletts shall have a characteristic pyriform shape of a length not less than $1\frac{1}{2}$ times the diameter of the pear, except that the shape may be slightly irregular provided it does not detract from the general appearance of the pear.

Winter Nelis with characteristic sutures and/or flattening on one side and/or other slight irregularities which do not materially detract from the general appearance of the pear shall be considered well formed.

In other varieties, slight irregularities of shape from type which do not materially detract from the general appearance of the fruit shall be considered well formed.

"Sound" means that pears at time of packing are free from visible defects such as decay, breakdown, scald, bitter pit, or physical injury affecting keeping quality.

"Free from damage" means that no blemish shall be allowed which materially affects the appearance of the fruit. The following blemishes shall not be considered as damage:

(a) Slight handling bruises and box bruises such as are incident to good commercial handling in the preparation of a tight pack.

(b) Sunburn, if the normal color of the fruit has not been materially changed, without any softening of the flesh or blistering or cracking of the skin.

(c) Sprayburn, same as sunburn.

(d) Russeting, characteristic of the variety as follows:

1. On D'Anjou and Bartlett, characteristic russeting shall be permitted at the calyx end provided such russeting is not visible for more than $1/2$ inch when the pear is placed calyx end down on a flat surface.

2. On Flemish Beauty, smooth net-like russeting shall be considered characteristic.

3. On Bosc, Comice and Winter Nelis, russeting is desirable whether brought about by so-called "Natural causes" or stimulated by mechanical means or weather conditions. Leaf whip or light limbrubs which resemble and blend into russeted areas shall be considered as russet.

(e) Light russeting not characteristic of the variety, when the affected area does not exceed an aggregate of 15% of the surface.

(f) Slight pebbling on Bartletts which does not materially detract from the appearance.

In addition to the above, a pear may show any one or a combination of the following, the aggregate of which does not exceed 3/4 inch in diameter.

(g) Limbrubs which are light and not soft and which affect an aggregate area not to exceed 5/4 inch in diameter.

(h) Hail marks when the injury is superficial and which affect an aggregate area not to exceed 1/4 inch in diameter.

(i) Heavy russeting, such as is characteristic of frost injury when the aggregate area does not exceed 1/2 inch in diameter.

(j) Two slight, healed depressions which do not materially affect the general appearance of the fruit.

Aggregate area means that all the areas of the blemishes under consideration may be assembled into one circular area of the maximum diameter specified in Sections (g), (h), (i), and (j).

Fancy, or Second Grade shall consist of pears of one variety which are mature, hand picked, clean, not badly misshapen, sound, and free from cork spot, and visible black end, and from serious damage caused by broken skin, bruises, limbrubs, sunburn, sprayburn, hail marks, drought spot, russeting, disease, insects, mechanical or other means.

Definition of Terms

"Mature" means having reached the stage of maturity which will insure a proper completion of the ripening process. Firmness of the flesh shall be considered only in connection with other factors to determine the degree of maturity.

"Hand picked". Pears shall be considered hand picked unless they show evidence of rough handling or of having been on the ground.

"Clean" means reasonably free from dust, dirt, or honey dew.

"Not badly misshapen" means: 1. In Bartletts the pear shall not be deformed to the extent of seriously detracting from its appearance or materially affecting its culinary or edible value.

2. In other varieties, the pear shall have a shape which will permit the cutting of three fairly uniform quarters, and which is neither excessively flattened or elongated for the variety, and which shall be free from excessive creases or folds such as are characteristic of frost or winter injury.

"Sound" means that pears at time of packing are free from visible defects such as decay, breakdown, scald, bitter pit, or physical injury affecting keeping quality.

"Free from serious damage" means that the defects taken singly or collectively shall not seriously deform or disfigure the fruit, or seriously affect the edible or culinary value. The following blemishes shall not be considered as serious damage:

(a) Slight handling bruises and box bruises such as are incident to good commercial handling in the preparation of a tight pack.

(b) Sunburn, if the normal color of the fruit has been but slightly changed without any softening of the flesh or blistering or cracking of the skin.

(c) Sprayburn, same as sunburn.

(d) Russeting characteristic of the variety:

1. On Buerre D'Anjou and Bartlett, characteristic russeting shall be permitted at the calyx end provided such russeting is not visible for more than 1/2 inch when the pear is placed calyx end down on a flat surface, and in addition, smooth russeting shall be permitted on the entire surface.
2. On Flemish Beauty smooth russeting shall be permitted on the entire surface.
3. On Buerre D'Espic, Comice, and Winter Nelis, russeting is desirable whether brought about by so-called "Natural causes" or stimulated by mechanical means or weather conditions. Leaf whip or light limbrubs which resemble and blend into russet areas shall be considered as russet.
4. On other varieties, smooth russeting not characteristic of the variety will be permitted on the entire surface of the fruit.

(e) Pebbling on Bartletts which does not seriously affect the culinary or edible value of the fruit.

(f) Limbrubs. 1. Bartletts: Limbrubs which are light and which are not soft, and which affect an aggregate area not to exceed 25% of the surface of the fruit.

2. On other varieties, limbrubs which are light and which are not soft and which affect an aggregate area not to exceed 10% of the surface of the fruit.

(g) Drouth spots which do not affect an aggregate area exceeding 1/4 inch.

In addition to the above, a pear may show any one or a combination of the following, the aggregate of which does not exceed the maximum area specified on each variety as mentioned below:

(h) Heavy Limbrubs. 1. Bartletts: Heavy limbrubs which are not soft and which do not affect an aggregate area to exceed 10% of the surface of the fruit. 2. On other varieties, heavy limbrubs which are not soft and which do not affect an area to exceed 3/4 of an inch.

(i) Hail marks when the injury does not affect an aggregate area to exceed 3/4 inch in diameter on Bartlett pears, and 1/2 inch in diameter on other varieties of pears.

(j) Frost rings. 1. Bartletts: Frost rings which do not completely encircle the pear and when the surface is only slightly grooved; and frost damage such as occurs at the calyx end and which does not materially detract from the appearance of the pear.

2. On other varieties frost injury of the nature of heavy russet shall be considered under heavy limbrub.

(k) Scab spot affecting an aggregate area not to exceed 1/2 inch in diameter.

(l) Shallow healed depressions which do not seriously affect the general appearance of the fruit and which do not affect an aggregate area to exceed 3/4 of an inch in diameter.

Aggregate area means that all of the areas of the blemishes under consideration may be assembled into one circular area of the maximum diameter specified in sections (h), (i), (j), (k), and (l).

Unclassified. Pears which are not graded in conformity with the foregoing grades, must be designated as "Unclassified".

Combination Grade. When Extra Fancy and Fancy pears are packed together, the packages may be marked "Combination Extra Fancy and Fancy." In this grade at least 25%, by count, of the fruit must meet the requirements of Extra Fancy.

When Extra Fancy, Fancy and Unclassified pears are packed together, the packages may be marked "Combination Extra Fancy, Fancy, and Unclassified", but must contain at least 25%, by count, of pears meeting the requirements of Extra Fancy grade.

When Extra Fancy and Unclassified pears are packed together, the packages may be marked "Combination Extra Fancy and Unclassified", but must contain at least 25%, by count, of pears meeting the requirements of Extra Fancy Grade.

When Fancy and Unclassified pears are packed together, the packages may be marked "Combination Fancy and Unclassified", but must contain at least 25%, by count, of pears meeting the requirements of Fancy Grade.

Tolerance. In order to allow for variations incident to commercial grading and handling, in each of the foregoing grades not more than 10%, by count, of any lot may be below the requirements of the grade, and not more than one-tenth (1/10) of this amount shall be allowed for decay and/or breakdown. Slight imperfections which are not discernable in good commercial sorting practice shall not be considered as defects of grade.

In addition to the above, a 10% tolerance for a total of all defects from the standards defined for uniformity of size, wrapping, and tightness of pack shall be permitted, and shall be computed by counting, weighing, or measuring the specimens judged to be below the standard.

Punctured pears in which no one puncture shall exceed 3/16 of an inch shall be scored as one-half of one point of variation.

Note: After pears have been placed in storage or in transit, scald, breakdown, decay, bitter pit, or physical injury affecting keeping quality which may have developed or may only have become evident after pears are packed are defined as applying to condition rather than to grade.

Size. The following packs shall be recognized as standard for determining range in sizes: 70, 80, 90, 100, 110, 120, 135, 165, 180, 195, 210, 228, 245.

The following terms will be used for description of degrees of uniformity of sizing of pears in packed boxes.

Uniform when the box contains not more than two sizes, the majority of which must be of the size with which the box is marked;

Fairly uniform when the box actually contains a range of not more than three sizes, one size larger and one size smaller than the size with which the box is marked;

Slightly irregular when not more than 10% of the pears in the box exceed the range of three sizes mentioned above;

Irregular when more than 10% of the pears in the box exceed the range of three sizes mentioned above. (Note: Packages in which the size must be described as "irregular" do not comply with the state grading and packing regulations and cannot legally be shipped.)

Box Packs

All pears packed in boxes under these regulations shall be arranged in clean, fairly bright and tightly nailed boxes according to the approved and recognized methods, with the stems pointing towards the end of the box, except when jumbled, and all boxes shall be tightly packed at time of packing but the contents shall not show excessive or unnecessary bruising because of an over-filled package.

Each pear wrapped shall be well wrapped.

Marking Boxes.

When shipped, the box shall bear the correct name of the variety, or "Variety Unknown", the name of the grower, packer or shipper, and his address, the grade, and the number of pears or the net contents either in terms of dry measure or weight. Any of these marks may be printed on the label but in case they are not, they must be stamped on the end of the box. The grower's, packer's, or shipper's name and address, if not included on the label, must be placed either in line with the grade marks above the label or on the opposite end of the box.

When boxes are marked as to number, each box must contain the correct number of pears designated by the markings.

Other grades and brands.

Any person, firm, or organization wishing to pack pears under any other grade or brand than those described in the foregoing rules shall file a certified copy of the description of such grade or brand with the Director of Agriculture, Olympia, Washington, before the first day of August of the year in which the pears so to be packed are grown. If such grade or brand is approved by the Director of Agriculture, pears may be packed under such grade or brand instead of the official state grading rules, and all boxes of pears so packed shall be marked with that grade or brand.

Walter J. Robinson, Director

Signed at Olympia, Washington

June 30, 1933.