

APPENDIX IV

REVISED STANDARD FOR AVOCADO (CXS 197-1995) TO ALIGN WITH FFV LAYOUT

(For discussion by the EWG)

1. SCOPE

The purpose of the standard is to define the quality requirements for avocados after preparation and packaging. When it is applied at stages following packaging, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

2. DEFINITION OF PRODUCE

This standard applies to commercial varieties¹ (cultivars) of avocados grown from *Persea americana* Mill.² from the *Lauraceae*¹ family to be supplied fresh to the consumer. Parthenocarpic fruit and avocados for industrial processing are excluded.

3. PROVISIONS CONCERNING QUALITY**3.1 MINIMUM REQUIREMENTS**

In all classes, subject to the special provisions for each class and the tolerances allowed, the avocados must display the following characteristics, deviations from which shall be observed by the naked eye or corrected 20/20 vision³ when appropriate:

- whole;
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter;
- practically free from pests⁴;
- free of damage caused by pests affecting the general appearance of the produce;
- free of abnormal external moisture excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- practically free of damage caused by low and/or high temperature;
- having a stalk not more than 10 mm in length which must be cut off cleanly. However, its absence is not considered a defect on condition that the place of the stalk attachment is dry and whole.

The development and condition of the avocados must be such as to enable them:

- To withstand transportation and handling; and
- To arrive in satisfactory condition at the place of destination.

3.1.1 Minimum Maturity Requirements

The avocados must have reached an appropriate degree of development and/or maturity in accordance with criteria proper to the variety, to the time of harvesting, and to the area in which they are grown.

¹ Varieties suitable for trade

² All information on botanical names is taken from the GRIN database (www.ars-grin.gov) or Mansfeld's World Database of Agricultural and Horticultural Crops (<http://mansfeld.ipk-gatersleben.de/apex/f?p=185:3:0>) or any other suitable database.]

³ Loupe, binocular or other magnifying equipment should not be used when assessing defects.

⁴ The provisions for pests applies without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC).

The development and state of maturity of avocados must be such as to enable them to continue their ripening process and to reach the degree of ripeness required in relation to the varietal characteristics and the growing area. The mature fruit should be free of bitterness.

The fruit should have a minimum dry matter content⁵ at the harvest, according to the variety, to be measured by drying to constant weight:

- 21 % for the variety Hass;
- 20 % for the varieties Torres, Fuerte, Pinkerton, Edranol and Reed.

Other varieties including Antillean/West Indian/Guatemalan may show a lower dry matter content.

3.2 CLASSIFICATION

The avocados are classified into three classes defined below:

3.2.1 “Extra” Class

Avocados in this class must be of superior quality. They must be characteristic of the variety. They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

If present, the stalk must be intact.

3.2.2 Class I

Avocados in this class must be of good quality. They must be characteristic of the variety.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape;
- slight defects in colouring;
- slight skin defects (corkiness, healed lenticels) and sunburn; the maximum total area should not exceed 4 cm².

The defects must not, in any case, affect the flesh of the fruit.

The stalk, if present, may be slightly damaged.

3.2.3 Class II

This class includes avocados that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified in Section 3.1 above.

The following defects may be allowed, provided the avocados retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- defects in colouring;
- skin defects (corkiness, healed lenticels) and sunburn; the maximum total area should not exceed 6 cm².

The defects must not, in any case, affect the flesh of the fruit.

The stalk, if present, may be damaged.

4. PROVISIONS CONCERNING SIZING

Avocados may be sized by count or weight.

- When sized by count, size is determined by the number of individual fruit per package.
- When sized by weight, size is determined based on the individual weight of each fruit or a weight range per package in accordance with the following table:

Size Code	Weight (in grams)
2	> 1220

⁵ This requirement applies to a fruit lot and not to individual fruits.

4	781 to 1220
6	576 to 780
8	456 to 576
10	364 to 462
12	300 to 371
14	258 to 313
16	227 to 274
18	203 to 243
20	184 to 217
22	165 to 196
24	151 to 175
26	144 to 157
28	134 to 147
30	123 to 137
32	80 – 123 (only Hass type)

The minimum weight for avocados of Antillean/West Indian/Guatemalan and other not defined varieties shall be 170 g.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

- a) For fruit sized by count: the weight of the smallest fruit shall be not less than 75% of the weight of the largest fruit in the same package.

5. PROVISIONS CONCERNING TOLERANCES

[At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated. Produce that fail conformity assessment, may be allowed to be resorted and brought into conformity in accordance with the relevant provisions in the *Guidelines for Food Import Control System* (CXG 47-2003).]

5.1 QUALITY TOLERANCES

5.1.1 “Extra” Class

Five percent, 5.0% by number or weight, of avocados not satisfying the requirements of the class, but meeting those of Class I.

5.1.2 Class I

Ten percent, 10.0% by number or weight, of avocados not satisfying the requirements of the class, but meeting those of Class II. Included therein, is one percent, 1%, tolerance for decay.

5.1.3 Class II

Ten percent, 10.0% by number or weight, of avocados not satisfying the requirements of the class. Included therein, is two percent, 2%, tolerance for decay.

5.2 SIZE TOLERANCES

For all classes: Ten percent, 10.0% by number or weight of avocados not satisfying the requirements as regards to sizing.

6. PROVISIONS CONCERNING PRESENTATION

6.1 UNIFORMITY

The contents of each package must be uniform and contain only avocados of the same origin, variety, quality and size.

The visible part of the contents of the package must be representative of the entire contents.

6.2 PACKAGING

Avocados must be packed in such a way as to protect the produce properly. The materials used inside the package must be of food-grade quality, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Avocados shall be packed in each container in compliance with the *Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables* (CXC 44-1995).

6.2.1 Description of Containers

The container shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the avocados.

Packages must be free of all foreign matter and smell.

7. PROVISIONS CONCERNING MARKING OR LABELLING

7.1 CONSUMER PACKAGES

In addition to the requirement of the *General Standard for the Labelling of Pre-packaged Foods* (CXS 1-1985), the following specific provisions apply:

7.1.1 Name of produce

[Each package shall be labelled as to the name of the produce and may be labelled as to name of the variety.]

7.1.2 Origin of produce

Country of origin⁶ and, optionally, district where grown, or national, regional or local place name.

7.2 NON-RETAIL CONTAINERS

The labelling of non-retail containers should be in accordance with the *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021). Identification code (optional)⁷.

In addition, the following specific requirements shall apply:

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

7.2.1 Origin of produce

Country of origin⁶ and, optionally, district where grown, or national, regional or local place name.

7.2.2 Commercial Specifications

- Class;
- Size expressed in minimum and maximum weight in grams or by number (by count);
- Net weight (optional).

7.2.3 Official control mark (optional)

8. CONTAMINANTS

8.1 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

8.2 The produce covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995).

⁶ The full or a commonly used name should be indicated.

⁷ However, in the case where a code mark is used, the references "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

9 HYGIENE

9.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CXC 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CXC 53-2003), and other relevant Codex texts such as codes of hygienic practice and codes of practice.

9.2 The produce should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CXG 21-1997).