CODEX STANDARD FOR PUMMELOS
(CODEX STAN 214-1999)

1. DEFINITION OF PRODUCE

This Standard applies to commercial varieties of pummelos grown from *Citrus grandis* (L.) Osbeck (syn. *C. maxima* Merr.), of the *Rutaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Pummelos for industrial processing are excluded.

2. PROVISIONS CONCERNING QUALITY

2.1 MINIMUM REQUIREMENTS

In all classes, subject to the special provisions for each class and the tolerances allowed, the pummelos must be:

- 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 of pests affecting the general appearance of the produce;
- practically free of damage caused by pests;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- firm;
- free of damage caused by low temperatures;
- practically free of bruising.

2.1.1 The pummelos must reached an appropriate degree of development and ripeness in accordance with criteria proper to the variety and/or commercial type and to the area in which they are grown.

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

- to withstand transport and handling; and
- to arrive in satisfactory condition at the place of destination.

2.1.2 Maturity Requirements and Colouring

Minimum total soluble solids content should not be less than 8%.

Colouring must be typical of the variety and/or commercial type on at least two-thirds of the surface of the fruit, account being taken of the variety and/or commercial type and of the time of picking.

2.2 CLASSIFICATION

Pummelos are classified in three classes defined below:

2.2.1 "Extra" Class

Pummelos in this class must be of superior quality. They must be characteristic of the variety and/or commercial type. They must be free of 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.

Amended 2005, 2011.

2.2.2 **Class I**

Pummelos in this class must be of good quality. They must be characteristic of the variety and/or commercial type. 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:

- slight defects in shape;
- slight defects in colouring;
- slight skin defects inherent in the formation of the fruit;
- slight healed defects due to mechanical causes.

The total area affected shall not exceed 10%.

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

2.2.3 **Class II**

This class includes pummelos which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the pummelos retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- defects in colouring;
- healed skin defects.

The total area affected should not exceed 15%.

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

3. PROVISIONS CONCERNING SIZING

Size is determined by the weight or maximum diameter of the equatorial section of the fruit, in accordance with the following table:

Size Code	Weight (g)	Diameter (mm)
0	> 1900	> 170
1	1701 - 1900	156 - 170
2	1501 - 1700	148 - 162
3	1301 - 1500	140 - 154
4	1101 - 1300	132 - 146
5	901 - 1100	123 - 138
6	701 - 900	116 - 129
7	400 - 700	100 - 118

Pummelos may be packed by count. In this case, provided the size uniformity required by the standard is retained, the size range in the package may fall outside a single size code, but within two adjacent codes.

Pummelos of a weight less than 400 g or of a diameter below 100 mm are excluded.

Uniformity in size is achieved by the above mentioned size scales, except in the case of fruit in bulk bins and fruit in individual non-rigid (nets, bags) packages for direct sale to the consumer, for which the maximum size difference between the smallest and the largest fruit in the same lot or package must not exceed the range obtained by grouping three consecutive sizes in the size scale.

4. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package (or in each lot for produce presented in bulk) for produce not satisfying the requirements of the class indicated.

4.1 QUALITY TOLERANCES

4.1.1 "Extra" Class

Five percent by number or weight of pummelos not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

4.1.2 Class I

Ten percent by number or weight of pummelos not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

4.1.3 Class II

Ten percent by number or weight of pummelos satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

4.2 SIZE TOLERANCES

For all classes, 10% by number or weight of pummelos corresponding to the size immediately above or below that indicated on the package.

5. PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

The contents of each package (or lot for produce presented in bulk) must be uniform and contain only pummelos of the same origin, variety and/or commercial type, quality, size and colour. The visible part of the contents of the package (or lot for produce presented in bulk) must be representative of the entire contents.

5.2 PACKAGING

Pummelos must be packed in such a way as to protect the produce properly. The materials used inside the package must be new[1], 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.

Pummelos shall be packed in each container in compliance with the Recommended International Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CAC/RCP 44-1995).

5.2.1 Description of Containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the pummelos. Packages (or lot for produce presented in bulk) must be free of all foreign matter and smell.

6. MARKING OR LABELLING

6.1 CONSUMER PACKAGES

In addition to the requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985), the following specific provisions apply:

6.1.1 Nature of Produce

If the produce is not visible from the outside, each package (or lot for produce presented in bulk) shall be labelled as to the name of the produce and may be labelled as to name of the variety and/or commercial type.

---

[1] For the purposes of this Standard, this includes recycled material of food-grade quality.

6.2 **NON-RETAIL CONTAINERS**

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment. For produce transported in bulk, these particulars must appear on a document accompanying the goods.

6.2.1 **Identification**

Name and address of exporter, packer and/or dispatcher. Identification code (optional)[2].

6.2.2 **Nature of Produce**

Name of the produce if the contents are not visible from the outside. Name of the variety or commercial type (optional).

6.2.3 **Origin of Produce**

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

6.2.4 **Commercial Identification**

- Class;
- Size (size code or minimum and maximum weight or diameter in grams or millimetres, respectively);
- Net weight (optional);
- Size code (or, when fruit packed by count fall under two adjacent codes, size codes or minimum and maximum diameter in mm) and number of fruit, in the case of fruit arranged in layers in the package.

6.2.5 **Official Inspection Mark (optional)**

7. CONTAMINANTS

7.1 The produce covered by this Standard shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995).

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

8. HYGIENE

8.1 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 Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), Code of Hygienic Practice for Fresh Fruits and Vegetables (CAC/RCP 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

8.2 The produce should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

---

[2] The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference “packer and/or dispatcher (or equivalent abbreviations)” has to be indicated in close connection with the code mark.