

CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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STANDARD FOR PITAHAYAS

CXS 237-2003

Adopted in 2003. Amended in 2005, 2011.

1. DEFINITION OF PRODUCE

This Standard applies to commercial species and varieties of pitahayas grown from the genera *Selenicereus* and *Hylocereus*, of the *Cactaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Pitahayas 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 pitahayas must be:

- whole;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean and 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 taste¹;
- firm;
- fresh in appearance;
- free of cracks in the skin;
- with a peduncle or stem between 15 and 25 mm in length;
- without thorns.

2.1.1 The pitahayas must have reached an appropriate degree of development and ripeness² account being taken of the characteristics of the variety and/or commercial type and the area in which they are grown.

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

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

2.2 Classification

Pitahayas are classified in three classes defined below:

2.2.1 "Extra" Class

Pitahayas 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.

2.2.2 Class I

Pitahayas 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 of the skin not exceeding 1 cm² of the total surface area of the fruit.

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

¹ This provision allows for smell caused by conservation agents used in compliance with corresponding regulations.

² The maturity of the yellow pitahayas can be gauged visually from its external colouring and confirmed by examining flesh content and using the iodine test.

2.2.3 Class II

This class includes pitahayas 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 pitahayas retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- defects of the skin not exceeding 2 cm² of the total surface area of the fruit.

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

3. PROVISIONS CONCERNING SIZING

Size is determined by the weight of the fruit, in accordance with the following table³:

Size Code	Unit Weight (in grams)	
	Yellow	Red/White
A	110 – 150	110 – 150
B	151 – 200	151 – 200
C	201 – 260	201 – 250
D	261 – 360	251 – 300
E	> 361	301 – 400
F	-----	401 – 500
G	-----	501 – 600
H	-----	601 – 700
I	-----	> 701

4. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package 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 pitahayas 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 pitahayas 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 pitahayas 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 pitahayas corresponding to the size immediately above and/or below that indicated on the package.

³ In the case of yellow pitahayas, the number of units per package may be used.

5. PROVISIONS CONCERNING PRESENTATION

5.1 Uniformity

The contents of each package must be uniform and contain only pitahayas of the same origin, variety and/or commercial type, quality, colour and size. The visible part of the contents of the package must be representative of the entire contents.

5.2 Packaging

Pitahayas must be packed in such a way as to protect the produce properly. The materials used inside the package must be new⁴, 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.

Pitahayas 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).

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 pitahayas. Packages must be free of all foreign matter and smell.

6. MARKING OR LABELLING

6.1 Consumer Packages

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

6.1.1 Nature of Produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce and may be labelled as to the name of the variety and/or commercial type.

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.

6.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional)⁵.

6.2.2 Nature of Produce

Name of the produce if the contents are not visible from the outside. Commercial type defined by colour of skin⁶ (yellow, red or white).

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 weight range in grams);
- Number of units (optional);
- Net weight (optional).

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 *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995).

⁴ For the purposes of this Standard, this includes recycled material of food-grade quality.

⁵ 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.

⁶ In some regions, this may also be defined by the colour of the pulp.

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 *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.

8.2 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).