



JOINT FAO/WHO FOOD STANDARDS PROGRAMME

FAO/WHO COORDINATING COMMITTEE FOR LATIN AMERICA AND THE CARIBBEAN

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Virtual

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REGIONAL STANDARD FOR LULO OF CASTILLA (NARANJILLA)

(Prepared by the Electronic Working Group chaired by Colombia and co-chaired by Mexico)

(At Step 4)

Codex Members and Observers wishing to submit comments at Step 3 on the Standard for Lulo of Castilla should do so as instructed in CL 2024/61-LAC available on the Codex website.¹

Background

1. Following the discussions held at the 22nd Session of the Codex Committee on Fresh Fruits and Vegetables (CCFFV22) (2022) the Committee agreed to:
 - (i) recommend the approval of the new work for the development of a standard on lulo of Castilla (naranjilla) by the 45th Session of the Codex Alimentarius Commission (CAC45, 2022), and requested Colombia to review the proposal bringing more commercial information from other producing countries, and to present it directly to the Executive Committee of the Codex Alimentarius Commission (CCEXEC) through the Codex Secretariat;
 - (ii) establish an EWG, chaired by Colombia and co-chaired by Mexico, which would work in English and Spanish, to prepare, subject to the approval of the new work, a preliminary Draft Standard for the Lulo of Castilla (Naranjilla) for circulation to receive comments at Step 3 and that could be considered at CCFFV23; and
 - (iii) request the EWG to submit the report at least three months before such meeting.
2. CAC45 did not approve the proposal for new work on the development of a Standard for the Lulo of Castilla (Naranjilla) due to its limited volume of international trade but did approve new work on the development of a Regional Standard for Lulo of Castilla (Naranjilla) within the FAO/WHO Coordinating Committee for Latin America and the Caribbean (CCLAC).
3. Colombia confirmed its willingness to chair an EWG with Mexico as co-chair, with the aim of initiating the development of a Regional Standard for Lulo of Castilla (Naranjilla).

Work process: participation and methodology

4. Four Member countries registered to participate in the EWG. The list of participants is included in Appendix II.
5. The Chair and co-Chair of the EWG distributed the first message on May 15, 2023, in both Spanish and English.

¹ <https://www.fao.org/fao-who-codexalimentarius/resources/circular-letters/en/>

6. Two members presented their observations in the first round, namely Ecuador and Mexico:
 - Accepting editorial comments in the document in general;
 - In Section 3.1, the indication of on abnormal external moisture was retained, as was free of damage. In addition, it was maintained that the lulo of Castilla (naranjilla) arrives in satisfactory conditions at the place of destination;
 - In Section 3.2.2 it was maintained that the accepted defects are slight and that they do not affect the general appearance of the product, it was not accepted that “they do not affect the flesh or the general condition”, the above was maintained in accordance with the Codex commodity standards;
 - In paragraphs 3.2.2 and 3.2.3, possible examples for the superficial fissure defect are left in parentheses, i.e. (crack/split/dent/pitting), with exclusion of “slits”;
 - Section 3.2.3 was redrafted;
 - In Section 4, letter B, it was indicated that the diameter is equatorial;
 - Section 7.2.2 was redrafted, to maintain consistency with other Codex commodity standards.
7. Based on these observations, the Chair and co-Chair of the EWG prepared the second proposed draft regional standard and distributed it to the EWG on 13 September 2023 (second round of observations). Two members formulated observations (Ecuador and Mexico) on the draft regional standard, which included:
 - Accepting editorial comments on the document in general;
 - Section 2, referring to the definition of the product, was adjusted to include “...belonging to the Solanaceae family, which is characterized by its greenish pulp and numerous small seeds distributed in four compartments. The bark is smooth, intense yellow, reddish-yellow or orange when ripe and is covered by yellow or red trichomes (fluff), which comes off when the fruits ripen...”
 - In Section 4, the tables of literals (B) and (C) were adjusted, referring to the range of diameters (mm) and the range of weights (g).
8. The Chair and co-Chair of the EWG distributed the third message to the EWG on February 12, 2023, in both Spanish and English. Receiving comments from Ecuador and Mexico, which included:
 - Editorial changes were made in accordance with the standardized template established by the CCFFV. The request to distribute footnotes at the end of each section was accepted;
 - In Section 2, produce definition, the reference to the shape characteristics of the lulo of Castilla (naranjilla) is removed;
 - In Section 3.1.1, maturity requirements, the inclusion of the reference “after packaging” was not accepted, since it was considered exclusive of other forms of presentation, for example, in bulk.
9. The Chair and co-Chair of the EWG finalized the draft regional standard and the report presenting the work of the EWG to the CCLAC Secretariat on March 6, 2024.

RECOMMENDATION

10. CCLAC is invited to consider the Draft Regional Standard for Lulo of Castilla (Naranjilla) as presented in Appendix I for possible adoption at Step 5/8.

Appendix I

REGIONAL STANDARD FOR LULO OF CASTILLA (NARANJILLA)

(Prepared by the electronic working group chaired by Colombia and co-chaired by Mexico)

(at Step 3)**1. SCOPE**

1.1 The purpose of this standard is to define the quality requirements for lulo of castilla (naranjilla)² (*Solanum quitoense*, Lamark), after preparation and packaging. When it is applied at the stages following packing, the fruits may show the following in relation to the requirements of the standard:

- a slight decrease in the freshness and turgidity state;
- a slight deterioration due to their development and their tendency to perish.

1.2 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 conforming to this standard.

2. DEFINITION OF PRODUCE

This standard applies to lulo of castilla (naranjilla) (*Solanum quitoense* Lam.), belonging to the Solanaceae family, which is characterized by its greenish pulp and numerous small seeds distributed in four compartments. The bark is smooth, intense yellow, reddish-yellow or orange when ripe, and is covered by yellow or red trichomes (fluff³), which comes off when the fruits ripen. These fruits must be supplied fresh to the consumer, after their preparation and packaging. Fruit intended 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 lulo of castilla (naranjilla) must be:

- intact;
- free of trichomes (fuzz covering the fruit);
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- firm;
- clean and practically free of any visible foreign matter;
- have the round or oval shape characteristic of the lulo of castilla (naranjilla);
- practically free of pests⁴ affecting the flesh, and damage caused by them;
- free of abnormal external moisture excluding condensation following removal from cold storage;
- free of mechanical damage;

² Also known as naranjilla, Naranjilla de Quito, Gele Terong (Netherlands), Morelle de Quito (France), Orangen von Quito (Germany).

³ Commercial types must be lint free.

⁴ Provisions relating to pests and pest damage apply without prejudice to plant protection regulations applied by governments in accordance with the International Plant Protection Convention (IPPC).

- free from damage caused by low and/or high temperature;

The development and condition of the lulo of castilla (naranjilla) 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

Lulo of castilla (naranjilla) must have reached an appropriate degree of development and/or maturity in accordance with the criteria to the species, variety, commercial type and to the area in which they are grown, that allows the proper development of its organoleptic characteristics.

3.2 CLASSIFICATION

Lulo of castilla (naranjilla) is classified into three classes defined below:

3.2.1 "Extra" class

Lulo of castilla (naranjilla) in this class must be of superior quality and 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, the pulp or flesh and presentation in the package.

3.2.2 Class I

Lulo of castilla (naranjilla) in this class must be of good quality and characteristics 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, the flesh and presentation in the package:

- slight defects in shape;
- slight defects in colouring;
- superficial fissure (crack/split/dent/pitting) of the outer skin, provided that the flesh is not damaged;
- healed scrapes caused by mites;
- slight bruising
- sunburns;

These defects together must not exceed 10% of the total fruit area. These defects, must not, in any case, affect the flesh of the produce.

3.2.3 Class II

This class includes lulo of castilla (naranjilla) that do not qualify for inclusion in the higher classes (class I and extra class) but satisfy the minimum requirements specified in Section 3.1. The following defects may be allowed, provided the lulo of castilla (naranjilla) retains their essential characteristics as regards the quality, the keeping quality and presentation in the package:

- slight defects in shape;
- defects in skin and colouring, depending on the variety,
- superficial fissure (crack/split/dent/pitting) on the bark in the area near the calyx and not exceeding 5% of the total area;

- healed cracks in the bark, provided that the flesh is not damaged;
- healed scrapes caused by mite;
- and slight bruising;
- sunburns.

These defects shall not cover the surface of the fruit by more than 10%. These defects, must not, in any case, affect the flesh of the produce.

4. PROVISIONS CONCERNING SIZING

Lulo of castilla (naranjilla) may be sized by count, diameter or weight in accordance with existing commercial trading practices. When such is the case, the package must be labelled accordingly.

- A. When sized by count, size is determined by the number of individual fruit per package.
- B. Lulo of castilla (naranjilla) may be sized by diameter (the maximum diameter of the equatorial section of each fruit). The following table is a guide and may be used on an optional basis.

Table A – Diameter

Size Code	Diameter range (mm)
A	> 68
B	60 - 68
C	< 60
Note. The minimum diameter of lulo of castilla (naranjilla) is 50 mm.	

- C. Lulo of castilla (naranjilla) may be sized by weight (the individual weight of each fruit). The following table is a guide and may be used on an optional basis.

Table B – Weight

Size Code	Weight range (g)
A	> 130
B	80 - 130
C	< 80
Note. The minimum weight of lulo of castilla (naranjilla) is 70 g.	

5. PROVISIONS CONCERNING TOLERANCES

5.1 QUALITY TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

5.1.1 “Extra” class

Five percent 5,0%, by number or weight of lulo of castilla (naranjilla) not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class. Included within this tolerance, is 0,5 percent tolerance for decay and/or internal breakdown.

5.1.2 Class I

Ten percent 10,0%, by number or weight of lulo of castilla (naranjilla) not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class. Included within this tolerance, is 1 percent tolerance for decay and/or internal breakdown.

5.1.3 Class II

Ten percent 10,0%, by number or weight of lulo of castilla (naranjilla) 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. Included within this tolerance, is 2 percent tolerance for decay and/or internal breakdown.

5.2 SIZE TOLERANCES

For all classes, 10% by number or weight of lulo of castilla (naranjilla) corresponding to the size immediately above and/or below that indicated on the package.

6. PROVISIONS CONCERNING PRESENTATION

6.1 Uniformity

The contents of each package must be uniform and contain only lulo of castilla (naranjilla) of the same origin, variety, quality and size (if sized). Sales packages may contain mixtures of varieties of different colors and sizes provided they are uniform in quality and for each variety concerned, its origin. The visible part of the contents of the package must be representative of the entire contents.

6.2 PACKAGING

Lulo of castilla (naranjilla) must be packed in such a way as to protect the produce properly. The materials used inside the package must be new, 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.

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

6.2.1 Description of containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the lulo of castilla (naranjilla). Packages must be free of all foreign matter and smell.

7. PROVISIONS CONCERNING MARKING OR LABELING

7.1 Consumer packages

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

7.1.1 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 name of the variety, class, size (if sized) expressed in accordance with any one of the following methods: count, size code and range, size range.

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). 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, or in the documents accompanying the shipment.

7.2.1 Identification

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

7.2.2 Nature of Produce

Name of the produce if the contents are not visible from the outside. Name of the variety (where appropriate).

7.2.3 Origin of Produce

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

7.2.4 Commercial Identification

- Class;
- Size (size code or weight range or count);
- Net weight (optional).

8. FOOD ADDITIVES

No food additives are permitted in lulo of castilla (naranjilla).

9. CONTAMINANTS

9.1 The produce covered by this standard shall comply with the maximum residue limits for pesticides established by the *Codex Alimentarius Commission*.

9.2 The produce covered by this standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS193-1995).

10. HYGIENE

10.1 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 practice and codes of hygienic practice.

10.2 The product shall comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CXG21-1997).

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