

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

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ORGANIZATION



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Agenda Item 4(c)

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FRESH FRUITS AND VEGETABLES

*13th Session,
Mexico City, Mexico, 25 - 29 September 2006*

PROPOSED DRAFT CODEX STANDARD FOR BITTER CASSAVA

(AT STEP 3)

Codex Members and Observers wishing to submit comments on the above matter, including possible implications for their economic interests, should do so in conformity with the Uniform Procedure for the Elaboration of Codex Standards and Related Texts (Codex Alimentarius Commission Procedural Manual) before **30 June 2006**. Comments should be directed:

to:

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with a copy to:

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BACKGROUND

1. The 12th Session of the Committee examined a proposal for a partial revision of the Codex Standard for Sweet Cassava to include varieties of cassava with more than 50 mg/kg of hydrogen cyanide considered safe for human consumption. The Committee agreed to request the Codex Alimentarius Commission the approval of this new work. Once approved, a working group led by Tonga would prepare a proposal for consideration by the next session of the Committee¹.
2. The 28th Session of the Commission noted the request of the Committee to revise the Standard in force namely Sections 1 - Definition of Produce and 3 - Provisions concerning Sizing including consequential amendments to relevant sections of the Standard derived from the revisions to the aforesaid sections to accommodate other varieties of cassava fit for human consumption.

¹ ALINORM 05/28/35, paras. 91-94 & Appendix VIII.

3. The Commission noted divergent views on how to proceed with the standardization of varieties of cassava other than those covered by the Standard namely: The inclusion of bitter varieties of cassava might have major implications to the provisions for sweet varieties of cassava presently covered by the Standard and coexistence of both varieties in the same Standard might create confusion as they were used for different purposes. In contrast, the inclusion of bitter varieties of cassava might assist in avoiding or reducing technical barriers to trade in these products.

4. The Commission agreed to initiate work on the standardization of bitter cassava varieties, as a separate Standard, with the understanding that the Committee might consider, at a later stage, the possibility of having a single Standard applicable to both types of cassava, consistent with the Codex approach to develop more horizontal and inclusive standards when possible².

Proposal of Tonga and Fiji on Bitter Cassava

5. The basis for the discussion was the current Codex Standard for Sweet Cassava. The major deviation from the Standard in force corresponds to the hydrogen cyanide (HCN) range that was used to define “bitter” cassava namely: “more than 50 mg/kg – 200 mg/kg”. The range was determined from the HCN contents of the cassava varieties which were currently consumed with minimal processing (i.e. just boiling or baking) in Fiji and Tonga. Besides, the term “sweet” was changed to “bitter” throughout the text. As regards sizing, it was decided that Section 3 as per the Standard for Sweet Cassava is fine as it is. The provisions under Section 7 - Contaminants were aligned in accordance with the decision of the Committee to apply this language to Codex standards for fresh fruits and vegetables³. All the changes are shown in bold and highlighted.

6. In addition, Tonga and Fiji informed that no health risk had been reported to be caused by the consumption of bitter varieties of cassava grown in these countries. Consequently, they support a single Codex Standard for Cassava covering both varieties which are consumed directly with minimal processing (i.e. boiling or baking).

REQUEST FOR COMMENTS

7. The proposed draft Codex Standard for Cassava is annexed to this document. Codex Members and Observers are invited to comment on the aforesaid document as directed on the cover page. The proposed draft Standard along with the comments submitted will be considered by the Codex Committee on Fresh Fruits and Vegetables.

² ALINORM 05/28/41, paras. 99 - 101 & Appendix VIII.

³ ALINORM 05/28/35, para. 56.

PROPOSED DRAFT CODEX STANDARD FOR **BITTER** CASSAVA¹

(AT STEP 3)

1. DEFINITION OF PRODUCE

This Standard applies to commercial **bitter**² varieties of cassava roots grown from *Manihot esculenta* Crantz, of the *Euphorbiaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Cassava for industrial processing is 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 cassava must be:

- whole;
- sound, produce affected by rotting, mould or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter, except permitted substances used to prolong its shelf life;
- 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 taste³;
- firm;
- practically free of mechanical damage and bruising;
- free of loss of colour in the flesh.

The cut at the distal (narrow) end of the cassava should not exceed 2 cm in diameter.

The stalk end of the root should have a clean cut between 1 cm and 2.5 cm in length.

2.1.1 The cassava must have been carefully harvested and have reached an appropriate degree of physiological development account being taken of the characteristics of the variety and the area in which they are grown.

The development and condition of the cassava must be such as to enable it:

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

2.2 CLASSIFICATION

Cassava is classified in three classes defined below:

2.2.1 "Extra" Class

Cassava in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. It 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

Cassava in this class must be of good quality. It 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:

¹ Commonly known in certain regions by: manioc, mandioca, tapioca, aipim, yucca, etc.

² **Bitter** varieties of cassava are those that contain **more** than 50 mg/kg **but less than 200 mg/kg** hydrogen cyanide (fresh weight basis). In any case, cassava must be peeled and fully cooked before being consumed.

³ This provision allows for smell caused by conservation agents used in compliance with corresponding regulations.

- slight defects in shape;
- scarring or healed damage, not exceeding 5% of the surface area;
- scraped areas, not exceeding 10% of the surface area.

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

2.2.3 Class II

This class includes cassava which does 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 cassava retains its essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- scarring or healed damage, not exceeding 10% of the surface area;
- scraped areas, not exceeding 20% of the surface area.

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

3. PROVISIONS CONCERNING SIZING

Size is determined by the diameter at thickest cross-section of the produce, in accordance with the following table:

Size Code	Diameter (in centimeter)
A	3.5 – 6.0
B	6.1 – 8.0
C	> 8.0

In all cases, cassava must not be less than 300 g in weight nor less than 20 cm in length.

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 cassava 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 cassava 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 cassava 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 cassava corresponding to the size immediately above and/or below that indicated on the package.

5. PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

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

5.2 PACKAGING

Cassava 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.

Cassava 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, Amd. 1-2004).

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 cassava. 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 Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991), the following specific provisions apply:

6.1.1 Nature of Produce

Each package shall be labelled as to the name of the produce and type (**bitter**) and may be labelled as to the name of the variety.

6.1.2 Preparation Instructions

A statement indicating that cassava should be peeled and fully cooked before being consumed is required.

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 and type (**bitter**) if the contents are not visible from the outside. Name of the variety (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 diameter in centimetres);
- Net weight;
- Preparation instructions (see Section 6.1.2).

6.2.5 Official Inspection Mark (optional)

7. CONTAMINANTS

7.1 PESTICIDE RESIDUES

Cassava shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

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.

7.2 OTHER CONTAMINANTS

Cassava shall comply with those maximum levels for contaminants established by the Codex Alimentarius Commission for this commodity.

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, Rev. 4-2003), 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).