



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
FAO/WHO COORDINATING COMMITTEE FOR AFRICA**

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DRAFT STANDARD FOR FERMENTED COOKED CASSAVA BASED PRODUCTS

(Step 6)

(Report of the electronic working group chaired by Cameroon and co-chaired by Benin, the Democratic Republic of Congo and Nigeria; and assisted by Kenya, Canada, Paraguay, and Sri Lanka)

1. Background

1.1 CCAFRICA22 (2017) noted that substantial progress was on the draft standard for fermented cooked cassava based products, and that some issues such as quality factors (specific criteria); contaminants; other names for inclusion in the Annex, needed further clarification and discussion by the Committee. Based on the progress made, CCFARICA agreed to forward the proposed draft Standard to the Commission for adoption at Step 5.

1.2 CCAFRICA22 further agreed to establish an electronic Working Group (eWG) hosted by Cameroon, and co-hosted by the Democratic Republic of Congo, Benin and Nigeria, to consider the comments received at Step 5; taking into consideration comments made from this committee, and to report back at CCAFRICA23.

1.3 During critical review for the standard development process, CCEXEC73 (2017) recommended that CCAFRICA align the draft standard with the standardized format of other standards for processed products before their submission for adoption at Step 8. CAC40 (2017) noted the recommendation of CCEXEC73 and agreed to adopt the draft standard at Step 5.

2 EWG process and Issues considered

2.1 The kick-off message for the eWG was issued on in May 2018, and the following countries registered to participate: Benin, Cameroon, Democratic Republic of Congo, Nigeria, Kenya, Canada, Paraguay, and Sri Lanka. The EWG worked on the Codex EWG Platform.

2.2 The EWG considered and addressed the following issues:

- a. *Title of the standard:* It was agreed to harmonize the title of the draft standard with that generally used for regional standards and taking into account the recommendation of CCEXEC73;
- b. *Section 2 - Description:* It was noted that, in the Africa region, there were a wide variety of products obtained from fermented cooked cassava based products, and that the traditional names for such products were also diverse. The EWG agreed to transfer the local names in the appendix.
- c. *Section 3.2- Specific Quality Factors:*
 - i. The provisions for crude fiber content and ash were deleted from the draft standard because the eWG did not consider these parameters necessary or applicable for quality control purposes and/or for the provision of consumer information.
 - ii. The EWG noted that provision for moisture content was necessary, but there was no consensus on the optimum value and it was agreed to refer this parameter to CCAFRICA23 for further consideration.
 - iii. The EWG has made a proposal for new values for total acidity and hydrocyanic acid concentration. The values have been based on the recent study carried out by the Faculty of Sciences of the University of Yaoundé I. The report of this study will be made available for consideration by CCAFRICA 23.

- d. *Section 3.3 - Provisions concerning presentation*: The additional provisions concerning presentation described in the Annex to the draft standard relate to the products mentioned in this eWG report, it will be intended to guide governments where these products are processed to make the regulatory provisions for their marketing.
- e. *Section 6 – Hygiene*: The phrase “Other relevant texts such as Codex Codes of Hygienic Practice” was added in order to ensure that all aspects related to hygiene are covered.

3. Recommendation and Conclusion

3.1 The EWG updated the draft standard for fermented cooked based products as well as implemented the request of CCEXEC.

3.2 CCAFRICA is invited to consider the updated draft standard and specifically resolve the following issues that remain in square brackets:

- a. Section 3.2 - specific quality parameters, these still need further consideration;
- b. Section 5 on the levels of hydrocyanic acid, noting that there were questions sent by CCAFRICA22 to CCCF for clarification;
- c. Consider the necessity of the Annex on additional provisions and packaging; and if such an Annex would be considered as optional regional or mandatory requirement.

3.3 The EWG completed its work and CCAFRICA is invited to consider the draft Standard on fermented cooked cassava based in Appendix I (at step 6).

**DRAFT REGIONAL STANDARD FOR FERMENTED COOKED CASSAVA BASED PRODUCTS.
(STEP 6)**

1. SCOPE

This standard applies to all fermented cooked cassava based products, which are intended for direct human consumption and obtained after processing of cassava roots (*Manihot esculenta* Crantz). This standard does not apply to gari.

2. DESCRIPTION

Fermented cooked cassava based products are presented in the form of cassava ball or sticks.

These products are obtained from fresh cassava roots, peeled, cut, soaked in water for fermentation and pressed and dried before packaging and cooking.

For preservation purpose, fermented cooked cassava based products can be stored and transported fresh to a freezing or deep freezing temperature, and cooking is done at the place of consumption.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 General Quality Factors

Fermented cooked cassava based products shall be clean and safe for human consumption. They shall be free from abnormal smell and taste, free of any foreign material, such as insect fragments, rodent hairs, grains of sand and dirt dust.

3.2 Specific Quality Factors

- i. [Moisture content, m/m, maximum:]
- ii. [total acidity: (in equivalent lactic acid): comprised between 0.1 and 0.5 g for 100g of fermented cassava preparation]

3.3 Provision Concerning Presentation

Fermented cooked cassava based products are presented in the form of cassava ball or sticks. (See Appendix 1 to this standard)

4. FOOD ADDITIVES

No additives are permitted for use in this product.

5. CONTAMINANTS

The products 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) and the *Code of Practice for the reduction of hydrocyanic acid (HCN) in cassava and cassava products* (CXC 73-2013).

[The concentration in total cyanhydric acid: Comprised between 0.001 and 0.85 mg/kg]. Fermented cooked cassava based products shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

6. HYGIENE

It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the applicable sections of the *General Principles of Food Hygiene* (CXC 1-1969), and other relevant texts such as Codex Codes of Hygienic Practice.

The products 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).

7. LABELLING

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

7.1 Product Name

The name of the products covered by this standard is «Fermented cooked cassava based products," followed by product specific name.

7.2 Location of label

The label of products covered by this standard should be placed on the secondary packaging.

7.3 Labelling of Non-Retail container

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this standard, the methods of analysis and sampling contained in the Recommended Methods of Analysis and Sampling (CXS 234-1999) relevant to the provisions in this standard, shall be used.

ADDITIONAL PROVISIONS EXAMPLES OF FERMENTED COOKED CASSAVA BASED PRODUCTS

Chikwangué, Ebobolo, Miondo, and Mangbèré

DESCRIPTION

- a) *Chikwangué*: Chikwangué stick measures about 30 to 40 cm, it is packed in wild sheets derived from specific endemic herbaceous, grow in Central Africa sub region. Packed Chikwangué is wrapped with wild creepers.
- b) *Ebobolo* (cassava stick): Cassava stick is longer than the Chikwangué one and measures between 50 and 60 cm. It consists of nodes (20 to 25) defined by the tether rope. Its packaging is made from leaves of the same family and species than Chikwangué.
- c) *Mangbèré*: The mangbèré is either in the form of ball or stick form. It is morphologically very similar to the Chikwangué but shorter in length, about 20 cm, with the look of a chunky and ovoid bread shape, with a section that varies from 10 cm to the central part to 5 cm towards the ends. *Mangbèré is packaged in the same leaves as chikwangué*
- d) *Miondo*: There are two types of miondo:
 - ♦ *Miondo Sawa*: It is made of two scorched cassava slices of about 30 cm, each wrapped in sheets of *Megaphrynium macrostachyum* or *Sarcophrynium brachystachys*. The lamellae have a width of about 1.5 cm and a fairly uniform thickness of about 3 mm. The two slats once packaged are placed face to face and fastened as cassava stick.
 - ♦ *Miondo of Grassfield (or Meedo)*: It measures about 30 cm and it is made from scorched cassava cylindrical dough of about 2 cm in ternal section. It is packaged specifically in banana leaves (*Musa banana*) and tied with ropes of raffia or bamboo.

PROVISIONS CONCERNING PRESENTATION

3.3.1 *Ebobolo*: A stick of Ebobolo measures approximately 60 cm (50-60 cm) length and has about 25 (20 to 25) nodes to a middle section (packed) of 2 to 3 cm. Wrapped in leaves of herbaceous plants mainly *Megaphrynium macrostachyum* and *Sarcophrynium brachystachys* own, without any expansion, it has an homogeneous texture, regular color and smell and free from foreign matter.

3.3.2 *Chikwangué*: Chikwangué stick measuring about 40 cm length and has about XXXX nodes for an average section (packed) 5 cm. Wrapped in sheets of *Megaphrynium macrostachyum* or *Sarcophrynium brachystachys*, clean, without any expansion, it has a homogeneous texture, regular color and smell and free from foreign matter.

3.3.3 *Miondo*: Miondo stick measures 30 cm length, with average section (packed) of 1.5 cm. It consists of two contiguous symmetrical facets. Wrapped in sheets of *Megaphrynium macrostachyum*, *Sarcophrynium brachystachys* or banana leaves, clean, without any expansion. It has a homogeneous texture, regular color and smell, free from foreign matter.

3.3.4 *Mangbèré*: The ball of Mangbèré weighs about XXXXX kg, its stick form is about 20 cm. Wrapped in sheets of *Megaphrynium macrostachyum*, clean, without any expansion, it has a homogeneous texture, regular color and smell, free from foreign matter

PACKAGING

Products concerned by this standard are covered by three types of packaging:

1. The primary packaging in contact with food, contains sales units. It is made of sheets of *Megaphrynium macrostachyum* or *Sarcophrynium brachystachys* for Chikwangué, Mangbèré, Ebobolo and Miondo and banana leaves (*Musa banana*) for Meedo.
2. The secondary packaging made of any kind of materials and consists of packages from two to five sales units. Miondo packet is made of 20 units of miondo double lamellae, whereas that of Meedo is made of 10 Meedo units.
3. The tertiary packaging made of any kind of materials and contains a limited number of sales units packets.

The primary packaging, secondary and tertiary must be clean and preserve the hygienic, nutritional, technological and organoleptic quality of the product. They should not impart product any toxic substance or undesirable odor or flavor. Secondary and tertiary packaging should be robust and solidly designed for the use for which they are intended.