

PROPOSED DRAFT REGIONAL STANDARD FOR COOKED RICE WRAPPED IN PLANT LEAVES
(At Step 5/8)

1. SCOPE

This standard applies to products as defined in Section 2, which are intended for direct consumption.

2. DESCRIPTION

2.1. Product Definition

Cooked Rice Wrapped in Plant Leaves is prepared from rice to which fillings such as meat, poultry, eggs, fruits and vegetables, beans, nuts, and their derived products etc. may or may not be added, and then completely wrapped with plant leaves (indocalamus leaves, reed leaves, banana leaves, lotus leaves etc.) used as food contact materials for flavour and not for consumption. The product may or may not be bundled up before steaming or boiling and packaging.

2.2. Product Types

2.2.1. Quick Frozen Product

The product that is steamed or cooked before being quickly frozen and stored in freezing temperature.

2.2.2. Commercial Sterilized Product

The product that is sterilized to meet the requirements of commercial sterility.

2.2.3. Refrigerated Product

The product that is steamed or cooked before being refrigerated and stored in refrigerating temperature.

2.3. Process Definition

2.3.1. Plant Leaves

The plant leaves as described in Section 2.1 should be carefully selected, soaked, cleaned and drained before using. The leaves shall not be soaked in chemical reagents to change their colour. Where plant leaves are secured with strings, the strings should not impart any toxic substance to the food.

2.3.2. Cooking

The product may be cooked using steam and other appropriate cooking methods and/or under certain pressure, temperature and time, before being quickly frozen or refrigerated.

2.3.3. Quick-Freezing Process

The quick-frozen product (Section 2.2.1) is the product subject to a freezing process as outlined in the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CXC 8 – 1976). In particular this freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick-freezing process shall not be regarded as complete unless and until the product temperature has reached –18°C or colder at the thermal center after thermal stabilization. The recognized practice of repacking quick frozen products under temperature-controlled conditions is permitted.

2.3.4. Sterilization Process

The commercial sterilized product as described in Section 2.2.2 shall be processed in an appropriate manner, before or after being sealed in a container, following relevant provisions of the Recommended International Code of Hygienic Practice for Low and Acidified Low Acid Canned Foods (CXC 23-1979) so as to prevent spoilage and to ensure product stability in normal storage conditions at ambient temperature. The product shall not leak or swell after sterilization.

2.3.5. Refrigeration

The refrigerated product (Section 2.2.3) is the product subject to refrigeration as described in the Code of Hygienic Practice for Refrigerated Packaged Foods with Extended Shelf Life (CXC 46-1999).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1. Ingredients

3.1.1. Basic Ingredients

a) glutinous rice, rice, millet, oat, barley, or etc.

3.1.2. Optional Ingredients

a) fruits and vegetables (including pulses and legume vegetables)

b) nuts and seeds

c) preserved fruits

d) edible fungi

e) meat

f) poultry

g) aquatic products

h) eggs

i) edible fats and oil

j) beans

k) derived products of a) to j)

l) sugar

m) edible salt

n) spices and culinary herbs

o) seasonings

p) other ingredients as appropriate

3.2. Quality Criteria**3.2.1. Quality Factors**

Products with edible fats and oil, and/or ingredients derived from nuts or food of animal origin shall meet the Peroxide value $\leq 19.7\text{mEq/kg}$.

3.2.2. General Requirements

Cooked rice wrapped in plant leaves should have the following qualities:

- have their appropriate shape;
- be uniform in size;
- be properly wrapped;
- have the characteristic smell and taste of the basic and/or optional ingredients.

3.2.3. Defects and Allowances

Cooked rice wrapped in plant leaves should be substantially free from following defects:

- broken wrapper and leaking filling;
- foreign taste;
- visible foreign matters¹ outside and inside the product.

3.3. Classification of “Defectives”

A container that fails to meet the quality requirements set out in Section 3.2 shall be considered a “defective”.

3.4. Lot Acceptance

A lot should be considered as meeting the requirements of this standard when the number of “defectives” as defined in Section 3.3 does not exceed the acceptance number (c) of an appropriate sampling plan with an AQL of 6.5.

¹ Any visible objectionable foreign detectable matter or material not usually associated with the raw material used.

4. FOOD ADDITIVES

Acidity regulators, antioxidants, colours, preservatives and stabilizers used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CXS 192-1995) in food category 06.7 “Pre-cooked or processed rice products, including rice cakes (Oriental type only)” and acidity regulators, antioxidants, colours, preservatives, stabilizers, emulsifiers, flavor enhancers and thickeners, as indicated in Table 3 of the *General Standard for Food Additives* (CXS 192-1995) are acceptable for use in foods conforming to this Standard.

The flavourings used in products covered by this standard should comply with the *Guidelines for the use of flavourings* (CXG 66-2008)

5. CONTAMINANTS

The product 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).

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

6. HYGIENE

It is recommended that the product 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), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to this product.

The product 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).

Quick frozen product should comply with the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CXC 8-1976).

Commercial sterilized products should comply with the requirement regarding commercial sterility within *Code of Hygienic Practice for Low Acid and Acidified Low Acid Canned Foods* (CXC 23-1979)

Refrigerated products should comply with *Code of Hygienic Practice for Refrigerated Packaged Foods with Extended Shelf Life* (CXC 46-1999).

7. WEIGHTS AND MEASURES

7.1. Net Weight

The weight of the product covered by the provisions of this Standard shall be indicated in accordance with the *General Standard for the Labeling of Prepackaged Foods* (CXS 1-1985).

7.2. Lot Acceptance

The requirements for net weight should be deemed to be complied with when the average net weight of all containers examined is not less than the declared weight, provided that there is no unreasonable shortage in individual containers.

8. LABELLING

The product covered by the provisions of this Standard shall be labelled in accordance with the *General Standard for the Labeling of Prepackaged Foods* (CXS 1-1985).

8.1. Name of the Product

The name of the product shall be “Cooked rice wrapped in plant leaves”. The product shall be labelled with the corresponding name described in Section 2.2. Other names² may be used in accordance with the law and custom of the country in which the product is sold and in such a manner as to not mislead consumers.

8.2. Labelling of 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).

9. PACKAGING

Packaging used for cooked rice wrapped in plant leaves shall be in accordance with the relevant provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CXC 8-1976); the *Recommended International Code of Hygienic Practice for Low and Acidified Low Acid Canned Foods* (CXC 23-1979), or the *Code of Hygienic Practice for Refrigerated Packaged Foods with Extended Shelf Life* (CXC

² Other names for example, Zongzi, Chimaki, Ba-Jang, Khao Tom Mat, lotus leaf rice, Ketupat, Ma-chang and etc.

46-1999).

10. METHODS OF ANALYSIS AND SAMPLING³

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.

10.1. Determination of Peroxide Value

10.1.1. Extraction of Oils from the Product

10.1.1.1. Apparatus

- (a) Rotary evaporator
- (b) Water bath

10.1.1.2. Extraction

Remove the product package and plant leaves, etc., take out the edible part of the representative sample, crush it and put it in a homogenizer or glass mortar, and grind it continuously to make the sample fully mashed and mixed well, and then put it in the wide-mouth bottle, and add 2 to 3 times the sample volume of petroleum ether (boiling range: 30°C-60°C). After fully mixing, stopper the bottle and leave for more than 12 hours. Filter all the solution with a funnel filled with anhydrous sodium sulfate into a round-bottom flask. Rinse the residue in the wide-mouth bottle with petroleum ether. Repeat the filtration once with a new anhydrous sodium sulfate funnel, if the filtrate is not clear enough. Evaporate the petroleum ether in the round-bottom flask under reduced pressure on a rotary evaporator at below 40°C, and the residue is the test sample. A sufficient number of representative samples should be selected to ensure that not less than 8 grams of the test sample can be obtained. The test sample should be tested as soon as possible.

10.1.2. Determination

According to ISO 3960 or AOCS Cd 8b-90 (03) (Type I Titrimetry (Colorimetric)).

³ The analytical methods will be removed when the standard is adopted by CAC and included in CXS 234-1999.