



## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

working by correspondence through the Codex online-platform

### REPORT OF THE ELECTRONIC WORKING GROUP ON PROPOSED DRAFT STANDARD FOR MANGO CHUTNEY

Prepared by the Electronic Working Group chaired by India and co-chaired by Jamaica

Codex members and observers wishing to submit comments at Step 3 on this proposed draft should do so as instructed in CL 2019/89-PFV available on the Codex webpage/Circular letters 2019:

<http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>

## BACKGROUND

1. At the 28th Session of the Codex Committee on Processed Fruits and Vegetables (CCPFV)<sup>1</sup>, India proposed revision of *Standard for Mango Chutney* (CXS 160-1987). CCPFV28 acknowledged India's commitment to lead work on the proposal and noted the support of several delegations in relation to pursuing work on a revised standard for the product. The Committee agreed that the proposal for new work be submitted directly to CCEXEC for critical review. CCEXEC73 noted that the project document was complete and met the criteria for critical review.
2. CAC40(2017)<sup>2</sup> agreed that CCPFV will work by correspondence until CAC41 (2018) to prioritize its work on the proposals for new work and pending work and submit a work plan to address its overall work to CAC41(2018). Accordingly, CCPFV worked through correspondence and based on the on-line survey, recommended approval of work on Revision of the *Standard for Mango Chutney* (CXS 160 1987).
3. While approving the work recommended by the CCPFV, CAC41 (2018)<sup>3</sup> agreed to establish an EWG to be chaired by India and co-chaired by Jamaica to initiate the work on revision and updating of the existing Standard for Mango Chutney.
4. Thirteen<sup>4</sup> Member Countries (including one member organisation) nominated their experts to participate in the work of this EWG (nine member countries registered through e-forum). The list of EWG participants is provided at Appendix II. The EWG began its work by circulating the first draft of the proposed revised Standard for Mango Chutney on 9<sup>th</sup> October, 2018. In response, a reply was received from only one member country (i.e. co-chair) informing that they had no comments to offer. Subsequently, a reminder was posted on the forum on 2<sup>nd</sup> December, 2018 to seek comments. In response, comments from two member countries (The United States of America and Thailand) were received.
5. The draft document was revised based on the comments received from the member countries and again, the 2<sup>nd</sup> revised consultative draft was circulated on 11<sup>th</sup> January, 2019. In response to the second draft circulated, comments were received from 3 member countries (The United States of America, Iran and Thailand).
6. The draft revised and finalized in the light of comments received from participating members during the consultation process is now being presented to the Committee for further consideration.

## DISCUSSION IN THE WORKING GROUP

<sup>1</sup> REP17/PFV, paras. 107-112

<sup>2</sup> REP17/CAC, paras. 95-96

<sup>3</sup> REP18/CAC, para. 88

<sup>4</sup> Brazil, Mexico, Ecuador, Iran, Thailand, Peru, Republic of Korea, Philippines, United Kingdom, The United States of America, Egypt, Colombia, European Union

7. The main modification and discussion points were:
- i. Based on the comments received from members, provisions concerning description, essential compositions, food additives, labelling, hygiene and method of sampling have been revised as appropriate, and as per the Standard Layout for Codex Standards for Processed Fruits and Vegetables.
  - ii. Additional sections on “Classification of ‘Defectives’” and “Lot Acceptance” as per the latest layout of the standards for processed fruits and vegetables, have been included.
  - iii. One member had proposed to reduce the minimum content of fruit ingredients from 40% to 35% (m/m) and also to delete minimum percentage of total soluble solids content. However, these values are the existing values in the draft standard, and both the requirements are essential to achieve the desired consistency of such type of product. Further, there are no trade impediments on account of these criteria and other existing codex standards of similar kind of products also provide this requirement. Hence it is proposed not to change this section.
  - iv. Two members were of the view, not to set the level of ash in the proposed standard. However, this requirement is already in the existing standard. Hence it is proposed not to change this section and keep it in square brackets for further discussion.
  - v. Few members asked for technical justification of the use of antifoaming agents, colour and preservatives in this product. However, it is observed that as per the General Standards for Food Additives (GSFA, CXS 192-1995), antifoaming agents, colors and preservatives are already allowed in food category 04.1.2.6 i.e., Fruit based spreads (E.g chutney) as well as in the existing standard for mango chutney.
  - vi. Section 4 related to food additive provisions has been revised as per the layout as followed in the latest adopted standard of CCPFV. Further, there are some foods additive (e.g. preservatives) for which limits are given in the commodity standard but not listed in GSFA and in some cases limits are higher than the limit given in the vertical standard.
  - vii. Some of the provisions of the section ‘Food Additives’ mentioned in the existing standard for Mango Chutney are not clear and are not as per the current format of the Commodity standard. The Section of Food additives provided under existing standard also specifies the limits of contaminants, which needs to be deleted from the Food Additive section and would be addressed under the separate section of contaminants, as per the latest Codex Procedural Manual (26th edition). Hence, it is proposed to refer the provisions for food additives to Codex Committee on Food Additives (CCFA) for its inclusion and appropriate alignment with GSFA.

## RECOMMENDATION

8. CCPFV is invited to consider following:
- i. proposed changes as highlighted in bold/underline and strikethrough in the existing Standard for Mango Chutney as attached at Appendix I;
  - ii. proposed deletion of food additives under section 4.1 and the same shall be governed by GSFA in order to make GSFA as single reference point for food additive provisions;
  - iii. requesting CCFA for inclusion and appropriate alignment of provisions of food additives which are put in square brackets [ ] with GSFA; and
  - iv. requesting CCFA for inclusion of notes to GSFA for allowance of specific levels of food additives which are in curly brackets/braces { } under section 4.1 (e.g. Note XX- except for use in mango chutney at 250mg/kg singly or in combination express as the benzoic acid).

**PROPOSED DRAFT REVISED STANDARD FOR MANGO CHUTNEY  
CODEX STAN (160-1987)**

**1. SCOPE**

**This standard applies to Mango Chutney, as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repacking, if required.**

**1.2. DESCRIPTION**

**1.2.1 Product Definition**

Mango Chutney is the product prepared from mango fruits (*Mangifera indica* L.) washed, clean, sound mango fruits (*Mangifera indica* L.) which have been peeled and sliced, chopped, shredded, or comminuted then cooked heat processed with basic ingredients, before or after being sealed in containers so as to prevent spoilage.

**(1) prepared from substantially sound fruits both ripe and unripe, fresh, or preserved mango, having reached appropriate maturity for processing. None of their essential characteristic elements are removed from them. They undergo operations such as sorting, trimming, washing, peeling, cutting, and otherwise treated to remove any blemishes, bruises, toppings, tailings, cores, pits(stone) etc.;**

**(2) packed with other optional ingredients as indicated in Section 3.1.2;**

**(3) processed in an appropriate manner, before or after being hermetically sealed in a container or flexible container, so as to prevent spoilage and to ensure product stability in normal storage conditions at ambient temperature.**

**1.2.2 Varietal Types**

Any suitable variety of the Mango fruit (*Mangifera indica* L.)

**2.2 Styles**

**2.2.1 Mango chutney with only pulp or crushed pulp or both**

**2.2.2 Mango chutney with pulp and pieces**

**3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**

**3.1 Composition**

Minimum Content of Fruit Ingredients

The product shall contain not less than 40% m/m of mango fruit ingredient in the finished product.

**3.1.1 Basic Ingredients**

**Mango, and/or preserved mango**

**3.1.2 Other optional Ingredients**

Nutritive sweeteners, honey, other fruits and vegetables, salt (sodium chloride), spices and condiments (such as vinegar, onion, garlic and ginger), and other suitable food ingredients

**a) Sugars and /or foodstuffs with sweetening properties such as honey, jaggery, date syrup;**

**b) Spices and culinary herbs<sup>5</sup>**

**c) Edible Salt;**

**d) Other fruits and vegetables such as onion, garlic and ginger; and**

**e) Other suitable food ingredients such as vinegar, tamarind, dry fruits and nuts, edible oil etc.**

**3.2 Minimum Content of Fruit Ingredients**

The product shall contain not less than 40% m/m of mango fruit ingredient in the finished product.

**3.3 Minimum Percentage of Total Soluble Solids**

The total soluble solids content shall be not less than 50% m/m of the finished product.

<sup>5</sup> In accordance with the relevant Codex standards for spices and culinary herbs when available.

### 3.4 Quality Criteria

3.4.1 Colour: The product shall **possess a good, reasonably uniform** ~~have a normal~~ colour characteristic of mango chutney **and shall be reasonably free from discolouration due to oxidation or other causes.**

3.4.2 Flavour: The product shall **possess** ~~have~~ characteristic flavour and odour of mango chutney **and shall be reasonably free from objectionable, metallic or off-**flavour or odour foreign to the product.

3.4.3 Consistency: The product shall possess good consistency and be reasonably free from fibrous matter. The fruit pieces shall possess a reasonably tender tissue.

[3.4.4 Ash: The total ash and ash insoluble in hydrochloric acid shall not exceed 5% m/m and 0.5% m/m respectively].

#### **3.4.5. pH: The pH must be below 4.6.**

3.4.5.6 Defects **and Allowances:** ~~The number, size and presence of defects such as seed or particles thereof, peels, or any other extraneous matter shall not seriously affect the appearance or the eating quality of the product.~~ **The product shall be reasonably free from defects such as seed or particles thereof, peels, grit or any other extraneous matter.**

### **3.5 Classification of “Defectives”**

**A container that fails to meet one or more of the applicable quality requirements, or total solids requirements, as set out in Section 3.4, should be considered as a “defective”.**

### **3.6 Lot Acceptance**

**A lot should be considered as meeting the applicable quality requirements for total solids referred to in Section 3.3, and the quality criteria in Section 3.4, when the number of “defectives” does not exceed the acceptance number (c) of an appropriate sampling plan with an AQL of 6.5.**

## 4. FOOD ADDITIVES

**4.1 Only those additives classes as listed may be used in products covered by this standard.**

**4.2 “Acidity regulators, antioxidant, antifoaming agents, colours, firming agents, preservatives and thickening agents used in accordance with Tables 1 and 2 of the *General Standard of Food Additives (GSFA, CSX 192-1995)* in food category 04.1.2.6 “Fruit-based spreads (e.g. chutney) excluding products of food category 04.1.2.5.” or listed in Table 3 of the GSFA are acceptable for use in foods conforming to this standard.”**

**4.3 Specific Food additive provisions for the product covered under this standard:**

3.1 Acidifying Agents	Maximum level in the finished product
3.1.1 Citric acid	To maintain the pH at a level not above 4.6 if the product is heat pasteurized or limited by GMP if the product is heat sterilized.
3.1.2 Acetic acid	
[3.2 Preservatives	
3.2.1 Sodium metabisulphite	100 mg/kg singly or in any combination expressed as SO <sub>2</sub> .]
[3.2.2 Potassium metabisulphite	100 mg/kg singly or in any combination expressed as SO <sub>2</sub> . ]
{3.2.3 Sodium and potassium benzoates	250 mg/kg singly or in any combination expressed as the acid.}
{3.2.4 Methyl, ethyl and propyl parahydroxy benzoates	250 mg/kg singly or in any combination expressed as the acid.}
3.2.5 Sorbic acid	1000 mg/kg
4. CONTAMINANTS	
Lead (Pb)	1 mg/kg
Tin (Sn)	250 mg/kg calculated as Sn

]

## **5. CONTAMINANTS**

**5.1 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)*.**

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

## **6 . HYGIENE**

**6.1 It is recommended that the products 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 Canned Fruit and Vegetable Products (CXC 2-1969)*, and other relevant Codex texts such as codes of hygienic practice and codes of practice.**

**6.2 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.-WEIGHTS AND MEASURES**

### **7.1 Fill of container**

#### **7.1.1 Minimum Fill**

**The container should be well filled with the product which should occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.**

**(a) Flexible containers should be filled as full as commercially practicable.**

#### **7.1.2 Classification of "Defectives"**

**A container that fails to meet the requirement for minimum fill of Section 7.1.1 should be considered as a "defective".**

#### **7.1.3 Lot Acceptance-**

**A lot shall be considered as meeting the requirement of Section 7.1.1 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.]**

## **6-8. LABELLING**

**The product covered by the provisions of this Standard shall be labelled in accordance with the latest edition of the *General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985)*. In addition, the following specific provisions apply:**

**8.1.1 The name of the product shall be:**

**(a) "Mango Chutney" or other names in accordance with the composition**

**(b) Other names usually employed in the country**

**(c) If an added ingredient, as defined in Section 2.1.1 alters the flavour characteristic of the product, the name of the food shall be accompanied by the term "flavoured with X" or "X flavoured" as appropriate.**

### **8.2 DECLARATION OF THE PERCENTAGE OF NATURAL TOTAL SOLUBLE SOLIDS (optional)**

**The percentage of total soluble solids may be included on the label in either of the following manners:**

**(a) The minimum percentage of natural total soluble solids (example: "Minimum Solids - 20%").**

**(b) A range within 2% of the natural total soluble solids (example: "Solids - 20% to 22%").**

~~In addition to the requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985)<sup>1</sup>, the following specific provisions apply:~~

#### ~~6.1 Name of the Food~~

~~The name of the food to be declared on the label shall be "mango chutney".~~

#### ~~6.2 Additional Mandatory Requirements~~

~~In accordance with the General Standard.~~

#### ~~6.2.1 Quantitative Labelling of Ingredients~~

~~In accordance with the General Standard.~~

6.2.2 Irradiated Foods

In accordance with the General Standard.

6.3 Exemptions from Mandatory Labelling Requirements

In accordance with the General Standard.

8.2.4 Labelling of Non-Retail Containers

In addition to the requirements of the General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985), the following specific provisions apply:

6.4.2.1 Information on labelling as specified above 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.

6.4.2.2 Lot identification, and the name and address of the manufacturer or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.

6.4.2.3 Outer containers holding prepackaged foods in small units (see General Standard) shall be fully labelled

**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, packer, distributor or importer, as well as storage instructions, shall appear on the container .However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.**

9. METHODS OF ANALYSIS AND SAMPLING

See relevant Codex texts on 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.**

<sup>1</sup> Hereafter referred to as "the General Standard".

<b>Sampling Plans</b>	
The appropriate inspection level is selected as follows:	
<b>Inspection level I</b>	<b>- Normal Sampling</b>
<b>Inspection level II -</b>	<b>Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate</b>

**SAMPLING PLAN 1 (Inspection Level I, AQL = 6.5)**

<b><u>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</u></b>		
<b><u>Lot Size (N)</u></b>	<b><u>Sample Size (n)</u></b>	<b><u>Acceptance Number (c)</u></b>
<b><u>4,800 or less</u></b>	<b><u>6</u></b>	<b><u>1</u></b>
<b><u>4,801 - 24,000</u></b>	<b><u>13</u></b>	<b><u>2</u></b>
<b><u>24,001- 48,000</u></b>	<b><u>21</u></b>	<b><u>3</u></b>
<b><u>48,001- 84,000</u></b>	<b><u>29</u></b>	<b><u>4</u></b>
<b><u>84,001 - 144,000</u></b>	<b><u>38</u></b>	<b><u>5</u></b>
<b><u>144,001- 240,000</u></b>	<b><u>48</u></b>	<b><u>6</u></b>
<b><u>more than 240,000</u></b>	<b><u>60</u></b>	<b><u>7</u></b>

<b><u>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</u></b>		
<b><u>Lot Size (N)</u></b>	<b><u>Sample Size (n)</u></b>	<b><u>Acceptance Number (c)</u></b>
<b><u>2,400 or less</u></b>	<b><u>6</u></b>	<b><u>1</u></b>
<b><u>2,401 - 15,000</u></b>	<b><u>13</u></b>	<b><u>2</u></b>
<b><u>15,001- 24,000</u></b>	<b><u>21</u></b>	<b><u>3</u></b>
<b><u>24,001- 42,000</u></b>	<b><u>29</u></b>	<b><u>4</u></b>
<b><u>42,001- 72,000</u></b>	<b><u>38</u></b>	<b><u>5</u></b>
<b><u>72,001 - 120,000</u></b>	<b><u>48</u></b>	<b><u>6</u></b>
<b><u>more than 120,000</u></b>	<b><u>60</u></b>	<b><u>7</u></b>

<b><u>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</u></b>		
<b><u>Lot Size (N)</u></b>	<b><u>Sample Size (n)</u></b>	<b><u>Acceptance Number (c)</u></b>
<b><u>600 or less</u></b>	<b><u>6</u></b>	<b><u>1</u></b>
<b><u>601 - 2,000</u></b>	<b><u>13</u></b>	<b><u>2</u></b>
<b><u>2,001- 7,200</u></b>	<b><u>21</u></b>	<b><u>3</u></b>
<b><u>7,201 - 15,000</u></b>	<b><u>29</u></b>	<b><u>4</u></b>
<b><u>15,001- 24,000</u></b>	<b><u>38</u></b>	<b><u>5</u></b>
<b><u>24,001- 42,000</u></b>	<b><u>48</u></b>	<b><u>6</u></b>
<b><u>more than 42,000</u></b>	<b><u>60</u></b>	<b><u>7</u></b>

**SAMPLING PLAN (Inspection Level II, AQL = 6.5)**

<b><u>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</u></b>		
<b><u>Lot Size (N)</u></b>	<b><u>Sample Size (n)</u></b>	<b><u>Acceptance Number (c)</u></b>
<b><u>4,800 or less</u></b>	<b><u>13</u></b>	<b><u>2</u></b>
<b><u>4,801 - 24,000</u></b>	<b><u>21</u></b>	<b><u>3</u></b>
<b><u>24,001- 48,000</u></b>	<b><u>29</u></b>	<b><u>4</u></b>
<b><u>48,001- 84,000</u></b>	<b><u>38</u></b>	<b><u>5</u></b>
<b><u>84,001 - 144,000</u></b>	<b><u>48</u></b>	<b><u>6</u></b>
<b><u>144,001- 240,000</u></b>	<b><u>60</u></b>	<b><u>7</u></b>
<b><u>more than 240,000</u></b>	<b><u>72</u></b>	<b><u>8</u></b>
<b><u>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</u></b>		
<b><u>Lot Size (N)</u></b>	<b><u>Sample Size (n)</u></b>	<b><u>Acceptance Number (c)</u></b>
<b><u>2,400 or less</u></b>	<b><u>13</u></b>	<b><u>2</u></b>
<b><u>2,401 - 15,000</u></b>	<b><u>21</u></b>	<b><u>3</u></b>
<b><u>15,001- 24,000</u></b>	<b><u>29</u></b>	<b><u>4</u></b>
<b><u>24,001- 42,000</u></b>	<b><u>38</u></b>	<b><u>5</u></b>
<b><u>42,001- 72,000</u></b>	<b><u>48</u></b>	<b><u>6</u></b>
<b><u>72,001 - 120,000</u></b>	<b><u>60</u></b>	<b><u>7</u></b>
<b><u>more than 120,000</u></b>	<b><u>72</u></b>	<b><u>8</u></b>
<b><u>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</u></b>		
<b><u>Lot Size (N)</u></b>	<b><u>Sample Size (n)</u></b>	<b><u>Acceptance Number (c)</u></b>
<b><u>600 or less</u></b>	<b><u>13</u></b>	<b><u>2</u></b>
<b><u>601 - 2,000</u></b>	<b><u>21</u></b>	<b><u>3</u></b>
<b><u>2,001- 7,200</u></b>	<b><u>29</u></b>	<b><u>4</u></b>
<b><u>7,201 - 15,000</u></b>	<b><u>38</u></b>	<b><u>5</u></b>
<b><u>15,001- 24,000</u></b>	<b><u>48</u></b>	<b><u>6</u></b>
<b><u>24,001- 42,000</u></b>	<b><u>60</u></b>	<b><u>7</u></b>
<b><u>more than 42,000</u></b>	<b><u>72</u></b>	<b><u>8</u></b>



**List of EWG Participants**

**Chair:-** Shri P. Karthikeyan, Deputy Director, National Codex Contact Point, Food Safety and Standards Authority of India

**Co-chair-** Miss Tafara Treshawna Smith, Bureau of Standards Jamaica, Jamaica

<b>S.No.</b>	<b>Group Members</b>	<b>Organisation and Country</b>
1.	Andre-bispo	Ministério da Agricultura, Brasil
2.	Tania Daniela fosado Soriano	Secretaría de Economía, México
3.	Miguel Alejandro Ortiz Armas	Ministerio de Salud Pública, Ecuador
4.	Zohre Pouretdal	Isiri, Iran
5.	Korwadee phonklang	Ministry of Agriculture and Cooperatives, Thailand
6.	Gabriel Vizcarra Castillo	SENASA/MINAGRI(Ministerio de Agricultura), Perú
7.	Susán Dioses Córdova	SENASA ( Servicio Nacional de sanidad Agraria)/PERÚ
8.	Yoye Yu	MAFRA, Republic of Korea
9.	Eun Mi, Park	Ministry of Food and Drug Safety, Republic of Korea
10.	Ah-Young Yoo	Ministry of Food and Drug Safety, Republic of Korea
11.	Maria Theresa C. Cerbolles	Food and Drug Administration, Department of Health, Philippines
12.	Sophie Gallagher	Department Environment Food and Rural Affairs United Kingdom
13.	Michelle McQuillan	DEFRA , United Kingdom
14.	Dorian A Lafond	International Standards Coordinator, Washington D.C, The United States of America
15.	Noha Mohammed Atyia	Egyptian Organization for Standardization & Quality (EOS), Ministry of Trade and Industry, Egypt
16.	Barbara Moretti	European Commission
17.	Luz Dary Santamaria Zapata	ICONTEC - Colombia