



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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Agenda Item 4

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

**26th Session
Montego Bay, Jamaica,
15 – 19 October 2012**

**PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED FRUITS
(revision of remaining individual standards for canned fruits)**

(At Step 3)

(Prepared by the Electronic Working Group on Canned Fruits led by Cuba)

Codex Members and Observers wishing to submit comments on this proposal should do so in conformity with the Uniform Procedure for the Elaboration of Codex Standards and Related Texts (Codex Alimentarius Procedural Manual) as presented in Annex I before **30 September 2012**. Comments should be addressed:

to:

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with copy to:

Secretariat,
Codex Alimentarius Commission,
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Format for submitting comments: In order to facilitate the compilation of comments and prepare a more useful comments document, Members and Observers, which are not yet doing so, are requested to provide their comments in the format outlined in the Annex to this document.

BACKGROUND

1. The 25th of the Committee on Processed Fruits and Vegetables (October 2010) agreed to start new work on the revision of the remaining individual standards for canned fruits and to compile them into a general standard for certain canned fruits following the same approach as the standard for certain canned vegetables.¹ The 34th Session of the Codex Alimentarius Commission (July 2011) agreed to approved the elaboration of this standard as proposed by the Committee.² The revision was carried out by an electronic working group led by Cuba assisted by a number of countries as indicated in the list of participants attached as Appendix II.
2. The revision is limited to the existing individual standards for canned fruits in packing media i.e. canned mangoes (CODEX STAN 159-1987) canned pears (CODEX STAN 61-1981) and canned pineapples (CODEX STAN 42-1981) therefore does not incorporate new canned fruits however the format of the Standard allows for their incorporation (i.e. as an Annex) upon request in the future³.
3. It is noted that the Standard for Canned Pears was revised by the Committee in 2001 hence the revision mainly focused on its simplification as an Annex to the Standard for Certain Canned Fruits, i.e. keeping the specific characteristics in the Annex while the general characteristics applying to canned fruits in general are contained in the main body of by Standard, rather than revising the technical content particular to canned pears.

¹ REP11/PFV, paras. 109 – 117.

² REP11/CAC, Appendix VI.

³ REP11/PFV, para. 116.

4. The revision does not covers canned berry fruits e.g. canned strawberries, raspberries, etc. in view of the decision of the Committee to develop a standard for canned berry fruits in the future⁴ and canned mixed fruits e.g. canned fruit cocktail, canned tropical fruit salad⁵.
5. The revision neither covers other group standards for canned fruits already developed by the Committee i.e. canned citrus fruits (CODEX STAN 254-2007)⁶ and canned stone fruits (CODEX STAN 242-2003)⁷.
6. In addition, the revision does not include other types of fruit preserves like jams jellies, marmalades⁸, chutneys and relishes.
7. The Standard for Canned Applesauce (CODEX STAN 17-1981, revised 2001) was revised by the Committee as a single standard due to the specificity of the product and therefore is not incorporated into the revision.
8. The proposed draft Standard for Certain Canned Fruits was circulated within the EWG for comments and discussion. The EWG also worked closely with the electronic working group on food additives in regard to specific provisions for food additives required for canned fruits covered by this Standard⁹. The proposed provisions for food additives for canned fruits i.e. mangoes, pears and pineapples will be presented in the report of the EWG on food additives.

⁴ ALINORM 01/27, paras. 7, 10, 13, Appendix IX. REP11/PFV, paras. 112, 115.

⁵ REP11/PFV, paras. 112, 115.

⁶ This Standard supersedes individual standards for canned grapefruit (CODEX STAN 15-1981) and canned mandarin oranges (CODEX STAN 68-1981) including the addition of canned pummelos and canned sweet oranges.

⁷ This Standard supersedes individual standards for canned apricots (CODEX STAN 129-1981), canned peaches (CODEX STAN 14-1981) and canned plums (CODEX STAN 59-1981) including the addition of canned cherries.

⁸ The Standard for Jams, Jellies and Marmalades (CODEX STAN 296-2009) applies to jams, jellies and marmalades for all fruits and vegetables.

⁹ REP11/PFV, paras. 107, 108

APPENDIX I
CODEX STANDARD FOR CERTAIN CANNED FRUITS

1. SCOPE

This Standard applies to certain canned fruits, as defined in Section 2 below and in the corresponding Annexes and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

This Standard does not cover canned stone fruits, canned citrus fruits, canned berry fruits and canned applesauce which are covered by other Codex standards.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Canned fruits are the products:

- (1) prepared from substantially sound, fresh, frozen or thermally processed fruits but only by physical methods, as defined in the corresponding Annexes, having reached appropriate maturity for processing. None of their essential elements are removed from them. They undergo operations such as washing, peeling, coring, stemming, grading, cutting, etc., depending on the type of product.
- (2) (a) packed with a suitable liquid packing medium in accordance with Section 3.1.3¹, regular pack, or
(b) solid pack closely packed fruit prepared by packing without a liquid packing medium; a sweetening ingredient may be used.
(c) vacuum packaged such that the packing medium does not exceed [20%] [10%] of the product's net weight and when the container is sealed in such conditions as to generate an internal pressure in accordance with good manufacturing practices.
- (3) processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage and to ensure product stability in normal storage conditions at room temperature.

2.2 STYLES

In addition to the styles defined in the corresponding Annexes, any other styles should be permitted as indicated in Section

2.2.1.

2.2.1 Other Styles

Any other presentation of the product should be permitted provided that the product:

- (1) is sufficiently distinctive from other forms of presentation laid down in the Standard;
- (2) meets all relevant requirements of the Standard, including requirements relating to limitations on defects, drained weight, and any other requirements which are applicable to that style which most closely resembles the style or styles intended to be provided for under this provision; and
- (3) is adequately described on the label to avoid confusing or misleading the consumer.

2.3 VARIETAL TYPE

Any commercially cultivated variety or type suitable for canning may be used.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Fruits as defined in Section 2 and the corresponding Annexes and liquid packing medium appropriate to the product.

3.1.2 Other Permitted Ingredients

Seasonings or other flavouring ingredients in accordance with the relevant provisions in the corresponding Annexes.

3.1.3 Packing Media

In accordance with the Codex Guidelines for Packing Media for Canned Fruits (CAC/GL 51-2003)².

¹ High vacuum products typically have an internal pressure of approximately 300 millibars or more below atmospheric pressure (depending on container size and other relevant factors).

² In canned pineapple when pineapple juice is used it may be clarified.

The cut-out strength for any packing medium shall be determined on average, but no container may have a solid soluble content (Brix) value lower than that of the next category below.

3.2 QUALITY CRITERIA

3.2.1 Colour, Flavour and Texture

In addition to the specific characteristics laid down in the corresponding Annexes, canned fruits shall have normal colour, flavour and odour of canned fruits, corresponding to the type or variety of fruit and shall possess texture characteristic of the product.

3.2.2 Defects and Allowances

Canned fruits should be substantially free from defects. Certain common defects should not be present in amounts greater than the limitations fixed in the corresponding Annexes.

3.3 CLASSIFICATION OF "DEFECTIVES"

A container that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 (except those based on sample averages), should be considered as a "defective".

3.4 LOT ACCEPTANCE

The sampling plans are defined in pages 6 and 7 of this standard.

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.1.3 and 3.2 when:

- (1) for those requirements which are not based on averages, the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5; and
- (2) the requirements of Section 3.2, which are based on sample averages, are complied with.

4. FOOD ADDITIVES

Only those food additive classes listed below and in the corresponding Annexes are technologically justified and may be used in products covered by this Standard. Within each additive class only those food additives listed below and in the corresponding Annexes, or referred to, may be used and only for the functions, and within limits, specified.

[This Section will be further developed by the Working Group on Food Additives]

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 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 Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), Code of Hygienic Practice for Canned Fruit and Vegetable Products (CAC/RCP 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 for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 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 (including packing medium, when it is used, covers the fruit completely) 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.

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 should 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.

7.1.4 Minimum Drained Weight

7.1.4.1 The drained weight of the product should be not less than the percentages indicated in the corresponding Annexes, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.³

7.1.4.2 Lot Acceptance

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

8. LABELLING

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

8.2 NAME OF THE PRODUCT

8.2.1 The names of the canned fruits shall be those defined in the corresponding Annexes.

8.2.2 When the fruits are sized, the size (or sizes when sizes are mixed), as defined in the corresponding Annexes, may [shall] be declared as part of the name or in close proximity to the name of the product.

8.2.3 The name of the product shall include indication of the packing medium as set out in Section 2.1 (a). For canned fruits packaged in accordance with Section 2.1 (2) (b) the words "vacuum packaged" shall be affixed to the commercial designation of the product or in close proximity.

8.2.4 The name of the product shall include indication of the style as set out in Section 2.2.

8.2.5 **Other styles** - If the product is produced in accordance with the other styles provision (Section 2.2.1), the label should contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

8.2.6 If an added ingredient, as defined in Section 3.1.2, 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.

8.2.7 The name of the product may include the varietal type.

8.3 LABELLING OF NON-RETAIL CONTAINERS

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

Provision	Method	Principle	Type
Drained weight	AOAC 968.30 Canned Vegetables – Drained Weight Procedure (Codex General Method for processed fruits and vegetables) OIML R 87 Quantity of product in prepackages	Sieving Gravimetry	I
Fill of containers (glass containers)	CAC/RM 46:1972 (Codex General Method for processed fruits and vegetables)	Weighing	I
Fill of containers (metal containers)	ISO 90.1:1986 (Determination of water capacity in metal containers)	Weighing	I
Net weight	OIML R 87 Quantity of product in prepackages	Weighing	I

³ For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 mL.

Provision	Method	Principle	Type
Solid soluble content	ISO 2173:1998 (Fruit and vegetable products. Determination of content in soluble solids. Refractometric method) AOAC 932.14C (Solids in Syrups. Hydrometer, Pycnometer)	Refractometry	I
Lead	ISO 6633:1984 (Fruits, vegetables and derived products – Determination of lead content – Flameless atomic absorption spectrometric method) AOAC 972.25 (Lead in Food. Spectroscopy/Atomic Absorption Spectroscopy)	Spectrometry	I
Tin	ISO 2447:1998 (Fruit and vegetable products – Determination of tin content) AOAC 980.19 (Tin in Food. Spectroscopy / Atomic Absorption Spectroscopy)	Spectrometry	I
Tin	ISO 17240:2004 (Fruit and vegetable products – Determination of tin content) – Method using flame atomic absorption spectrometry -	Spectrometry	I

**DETERMINATION OF WATER CAPACITY OF CONTAINERS
(CAC/RM 46-1972)**

1. SCOPE

This method applies to glass containers⁴.

2. DEFINITION

The water capacity of a container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

3. PROCEDURE

- 3.1 Select a container which is undamaged in all respects.
- 3.2 Wash, dry and weigh the empty container.
- 3.3 Fill the container with distilled water at 20°C to the level of the top thereof, and weigh the container thus filled.

4. CALCULATION AND EXPRESSION OF RESULTS

Subtract the weight found in 3.2 from the weight found in 3.3. The difference shall be considered to be the weight of water required to fill the container. Results are expressed as mL of water.

⁴ For determination of water capacity in metal containers the reference method is ISO 90.1:1986.

Sampling Plans

The appropriate inspection level is selected as follows:

- | | |
|----------------------------|--|
| Inspection level I | - Normal Sampling |
| Inspection level II | - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate |

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

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

SAMPLING PLAN (Inspection Level II, AQL = 6.5)

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

ANNEX I: PEARS

In addition to the general provisions applicable to canned fruits, the following specific provisions apply.

1. DESCRIPTION

1.1 PRODUCT DEFINITION

Canned pears is the product conforming to the characteristics of the fruit of *Pyrus communis* or *Pyrus sinensis*, which are peeled or unpeeled, cored, and stemmed, except that whole pears may not need to be peeled, cored, or stemmed and half pears may not need to be peeled.

1.2 STYLES

1.2.1 **Whole** – “peeled stemmed” or “unstemmed” or “unpeeled stemmed” or “unstemmed” with cores removed “cored” or left in “not cored”.

1.2.2 **Halves** - peeled or unpeeled, with stems and cores removed, and cut into two approximately equal parts.

1.2.3 **Quarters** - peeled or unpeeled and cut into four approximately equal parts.

1.2.4 **Sliced** - peeled and cut into wedge-shaped sectors.

1.2.5 **Diced** - peeled and cut into cube-like parts.

1.2.6 **Pieces or Irregular Pieces** - peeled and comprising irregular shapes and sizes.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 COMPOSITION

2.1.1 Other Permitted Ingredients

- (a) lemon juice (single strength or concentrated) added as an acidulant or flavour enhancer; and
- (b) spices and aromatic plants, spice oils.

2.2 QUALITY CRITERIA

2.2.1 Colour, Flavour and Texture

Canned pears shall have normal colour (except for coloured pears as listed in Section 4 of the Standard). A slight pink discoloration should not be regarded as a defective.

2.2.2 Uniformity of Size

Whole, Halves, Quarters - in 95% by count of units that are most uniform in size, the weight of the largest unit should be no more than twice the weight of the smallest unit, but if there are less than 20 units, one unit may be disregarded. Where a unit has broken in the container, the broken pieces are reassembled to approximate a single unit of the appropriate style.

2.2.3 Definition of Defects

- (a) **Blemished and trimmed pear units** - blemished units with surface discoloration and spots that definitely contrast with the overall colour and which may penetrate into the flesh, such as bruises, scab, and dark discoloration. Trimmed units that have deep gouges, whether due to physical trimming or other means, and which definitely detract from the appearance; trimmed units are considered defects only in whole, halved, and quartered styles.
- (b) **Broken** - a unit severed in two or more parts should be considered as one unit when reassembled to the approximate size and shape of an average unit in the container.
- (c) **Core material** - consisting of the seed cell, whether loose or attached, with or without seeds. For the purposes of calculating the defects allowance, all pieces of a core in the sample should be aggregated and pieces totalling approximately one-half of a core should be counted as one unit.
- (d) **Harmless plant material** - stems or stalks and leaf (or similar vegetable material).
- (e) **Peel** - peel that adheres to pear flesh or is found loose in the container.
- (f) **Seeds** - any one pear seed or the equivalent in pieces of one seed that are not included in core material.

2.2.4 Allowances for Defects

The product should be substantially free from defects such as harmless plant material, peel (in peeled styles), core material, blemished and trimmed units, seeds and broken units to the extent indicated below:

Defects		Maximum limits
(a) Blemished and trimmed pear units		(i) Total, 20% by count; or 3 units per container when count is less than 10; provided the sample average is no more than 20% - but limited to - (ii) 20% by count blemished; or 2 units per container when count is less than 10; provided the sample average is no more than 10% for blemished.
(b) Broken - in Whole, Halves, and Quartered styles only.		20% by count; or 2 units per container when count is less than 10; provided the sample average is no more than 10%.
(c) Core material (average) - except in "Whole-Not Cored" styles.		2 units per kg of total contents.
(d) Harmless plant material	(i) Stems or stalks (in styles in which the stem is customarily removed) and seeds (except in "Whole-not-cored" styles).	3 pieces per 3 kg of total contents.
	(ii) Leaf (or similar vegetable material)	
(e) Peel (Average) - except in "Unpeeled" styles.		10 cm ² (10 sq. cm.) aggregate area per kg of total contents.
(f) Seeds (average) - except in "Whole-Not-Cored" styles.		8 per kg of total contents.

3. WEIGHTS AND MEASURES

3.1 MINIMUM DRAINED WEIGHT

(a) Whole Style	50%
(b) Halves, Quarters, Slices, Pieces	53%
(c) Diced	56%

ANNEX II: PINEAPPLES

In addition to the general provisions applicable to canned fruits, the following specific provisions apply:

1. DESCRIPTION

1.1 PRODUCT DEFINITION

Canned pineapple is the product, conforming to the characteristics of *Ananas comosus* (L) Merr. (*Ananas sativus* (L) Lindl.) and from which peel and core have been removed.

1.2 STYLES

Canned pineapple may be packed in the following styles:

1.2.1 **Whole:** cylindrical whole unit with the core removed.

1.2.2 **Slices or Spiral Slices or Whole Slice or Rings:** uniformly cut circular slices or rings cut across the axis of the peeled, cored pineapple cylinders.

1.2.3 **Half Slices:** uniformly cut approximately semi-circular halves of slices.

1.2.4 **Quarter Slices:** uniformly cut, one-fourth portions of slices.

1.2.5 **Broken Slices:** arc-shaped portions which may not be uniform in size and/or shape.

1.2.6 **Spears or Fingers:** long, slender pieces cut radially and lengthwise or the cored pineapple cylinder, predominantly 65 mm or longer.

1.2.7 **Tidbits:** reasonably uniform, wedge-shaped sectors cut from slices or portions thereof, predominantly from 8 mm to 13 mm thick.

1.2.8 **Chunks:** short, thick pieces cut from thick slices and/or from peeled cored pineapple and predominantly more than 12 mm in both thickness and width, and less than 38 mm in length.

1.2.9 **Diced or Cubes:** reasonably uniform, cube-shaped pieces, predominantly 14 mm or less in the longest edge dimensions.

1.2.10 **Pieces:** irregular shapes and sizes not identifiable as a specific style and does not include "chunks" or "chips" styles.

1.2.11 **Chips:** small, irregular shapes and sizes of pineapple pieces similar to that left over after dicing of pineapple and which may be included in crushed style.

1.2.12 **Crushed or Crisp Cut:** finely cut or shredded or grated or diced pieces of pineapple and which may include chips in the crushed mass.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 COMPOSITION

2.1.1 Other permitted ingredients

Spices and aromatic plants, spice oils.

2.2 QUALITY CRITERIA

2.2.1 Color, flavor and texture

2.2.1.1 Color

White radiating streaks may be present. Canned pineapple containing special ingredients shall be considered to be of characteristic colour when there is no abnormal discolouration for the respective ingredient used.

2.2.1.2 Flavour

Canned pineapple with special ingredients shall have a flavour characteristic of that imparted by the pineapple and the other substances used.

2.2.1.3 Texture

The canned pineapple shall have a reasonably good texture, the fruitlets shall be reasonably good texture in structure, and the product shall be fairly free from porosity. The drained pineapple - of all styles - may contain no more than 7% by weight of "core material"¹. In determining, the percentage of core material, the areas which consist of core material are trimmed from the pineapple unit and weighed against the drained fruit ingredient in the container.

2.2.2 Uniformity of size and shape

¹ The hard fibrous centre portion of the fruit.

These requirements do not apply to canned pineapple in the styles of: Whole, Broken Slices, Pieces, Chips or Crushed.

2.2.2.1 **Slices or Spiral Slices or Whole Slices or Rings** - the weight of the largest slice in a container shall not be more than 1.4 times the weight of the smallest.

2.2.2.2 **Half slices or quarter slices** - the weight of the largest unit in a container shall be not more than 1.75 times the weight of the smallest, except for an occasional broken piece due to splitting or an occasional whole slice not completely cut through.

2.2.2.3 **Spears or fingers** - the weight of the largest unbroken unit in a container shall be not more than 1.4 times the weight of the smallest unbroken unit.

2.2.2.4 **Tidbits** - not more than 15% of the drained weight of pineapple in the container may consist of tidbits, each of which shall weigh less than three-fourths of the average weight of the untrimmed tidbits.

2.2.2.5 **Chunks** - not more than 15% of the drained weight of pineapple in the container may consist of pieces which weigh less than 5 g each.

2.2.2.6 **Cubes or Diced**

- (a) not more than 10% of the drained weight of pineapple in the container may consist of units of such size that they will pass through a screen that has square openings of 8 mm;
- (b) not more than 15% of the drained weight of pineapple in the container may consist of pieces which weight more than 3 g each.

2.2.3 **Definition of Defects**

- a) **Blemish** - surface areas and spots which contrast strongly or colour or texture with the normal pineapple tissue or which may penetrate into the flesh. Such blemishes are normally removed in preparation of pineapple for culinary use and include deep fruit eyes, pieces of shell, brown spots, bruised portions and other abnormalities.
- b) **Broken** - (considered a defect only in Sliced and Spear styles). A unit severed into definite parts; all of such portions that equal the size of a full-size unit are considered to be one defect in applying the allowances herein.
- c) **Excessive Trim** - (considered a defect only in the styles of Whole, Slices including Spiral Slices, Half Slices, Quarter Slices and Spears). A unit trimmed to the extent that its normal shape and conformation is destroyed and detracts from the appearance of such unit. Trim will be considered "excessive" if the portion trimmed away exceeds five percent of the apparent physical bulk of the perfectly formed unit and if such trimming destroys the normal circular shape of the outer or inner edge of the unit.

2.2.4 **Allowances for Defects**

Canned pineapple shall not contain excessive defects (whether or not specifically defined or as allowed in this standard) to the extent indicated below:

Styles	Units with Excessive Trim	Blemishes or Blemished Units
Whole	10% by count of fruit units (cylinders) ²	3 blemishes per fruit unit (cylinder)
Slices or Spiral Slices or Whole Slices; Half Slices; Quarter Slices	1 unit if 10 or less per can; 2 units if over 10 but not over 27 per can; or 7.5% by count if over 27 per can	1 unit if 5 or less per can; 2 units if over 5 but not over 10 per can; 4 units if over 10 but not over 32 per can; or 12.5% by count if over 32 per can
Spears	15% by count of all units	Same as for Slices and Half Slices
Broken Slices; Tidbits; Chunks; Cubes; Pieces	Not applicable	12.5% by count of all units
Chips; Crushed	Not applicable	Not more than 1.5% by weight of the drained fruit

3. **WEIGHTS AND MEASURES**

² Based on average from all containers in the sample.

3.1 **MINIMUM DRAINED WEIGHT**

(a) Regular packs	58%
(b) Solid pack	78%

ANNEX III: MANGOES

In addition to the general provisions applicable to canned fruits, the following specific provisions apply:

1. DESCRIPTION

1.1 PRODUCT DEFINITION

Canned mango is the product conforming to the characteristics of the fruits of *Mangifera indica* L and from which peel has been removed.

1.2 STYLES

The product shall be prepared from peeled fruit for all the following styles:

1.2.1 **Halves** - cut into two approximately equal parts along the stone from stem to apex and the flesh separated from the skin.

1.2.2 **Slices** - Long, slender pieces cut lengthwise or crosswise.

1.2.3 **Pieces** - (or mixed pieces or irregular pieces) - pitted and comprising irregular shapes and sizes.

1.2.4 **Diced** - flesh cut into cube-like parts with a dimension of at least 12 mm on the longest side.

1.2.5 **Other styles** - (There are no requirements for styles uniformity).

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 COMPOSITION

2.1.1 Other permitted ingredients

Spices and aromatic plants, spice oils.

2.2 QUALITY CRITERIA

2.2.1 Colour

Canned mangoes containing special ingredients shall be considered to be of characteristic colour when there is no abnormal discolouration of the respective ingredient used.

2.2.2 Flavour

Canned mangoes with special ingredients shall have the characteristic flavour of the mangoes and the other substances used.

2.2.3 Texture

The mangoes shall be reasonably fleshy and have little fibre. They may be variable in tenderness but shall neither be mushy nor excessively firm in liquid media packs, and shall not be excessively firm in solid packs.

2.2.4 Uniformity of Size

2.2.4.1 **Halves** - 90% by count of the units shall be reasonably uniform in size. Where a unit has broken within the container, the combined broken pieces are considered as a single unit.

2.2.4.2 **Other sizes** - There are no requirements for size uniformity.

2.2.5 **Symmetry** - Not more than 20% by count of units shall be sliced in a direction other than parallel to the crease (as stated above) and of these not more than half may have been sliced horizontally.

2.2.6 Defects and Allowances

- (a) **Blemishes** - surface discolouration and spots arising from physical, pathological, insect or other agents that definitely contrast with the overall colour, and which may penetrate into the flesh. Examples include bruises, scab and dark discolouration.
- (b) **Crushed or mashed** - means a unit which has been crushed to the extent that it has lost its normal shape (not due to ripeness) or has been severed into definite parts. Partially disintegrated halves are not counted as broken. All portions that collectively equal the size of a full size unit are considered one unit in applying the allowance herein.
- (c) **Rind** - considered as a defect. It refers to rind adhering to the pulp of the mango or found loose in the container.
- (d) **Pit (or stone) material** - considered a defect in all styles.
- (e) **Harmless extraneous material** - means any vegetable substance (such as, but not limited to a leaf or portion thereof or a stem or portion thereof) that is harmless but which tends to detract from the appearance of the product.

- (f) **Trim** - considered a defect only in halved and sliced canned mangoes in liquid media packs. The trimming must be excessive and includes serious gouges (whether due to physical trimming or other means) on the surface of the units which definitely detract from the appearance.

2.2.7 Allowances for Defects

The product shall be reasonably free from defects such as harmless extraneous material, pit (stone) material, blemished and trim, crushed or mashed, rind and spotted slices or chunks to the extent indicated below:

Defects	Regular packs	Solid packs
Blemishes and trim	30% by count	3 units per 500 g
Crushed or Meshed	5% by weight	not applicable
Rind and spotted slices or chunks	not more than 6 cm ² aggregate area per 500 g	not more than 12 cm ² aggregate area per 500 g
Pit or pit material (average)	1/8 stone or equivalent per 500 g	1/8 stone or equivalent per 500 g
Harmless extraneous material	2 pieces per 500 g	3 pieces per 500 g

3. WEIGHTS AND MEASURES

3.1 MINIMUM DRAINED WEIGHT

(a) Regular packs	55%
(b) Solid pack	78%

APPENDIX II
LIST OF PARTICIPANTS

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ANNEX

GENERAL GUIDANCE FOR THE PROVISION OF COMMENTS

In order to facilitate the compilation and prepare a more useful comments' document, Members and Observers, which are not yet doing so, are requested to provide their comments under the following headings:

- (i) General Comments
- (ii) Specific Comments

Specific comments should include a reference to the relevant section and/or paragraph of the document that the comments refer to.

When changes are proposed to specific paragraphs, Members and Observers are requested to provide their proposal for amendments accompanied by the related rationale. New texts should be presented in underlined/bold font and deletion in ~~strikethrough font~~.

In order to facilitate the work of the Secretariats to compile comments, Members and Observers are requested to refrain from using colour font/shading as documents are printed in black and white and from using track change mode, which might be lost when comments are copied/pasted into a consolidated document.

In order to reduce the translation work and save paper, Members and Observers are requested not to reproduce the complete document but only those parts of the texts for which any change and/or amendments is proposed.