

codex alimentarius commission



FOOD AND AGRICULTURE
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Agenda Item 5

**CX/PFV 00/4
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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

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DRAFT REVISED STANDARDS FOR CANNED FRUITS AT STEP 7

Secretariat Note: Draft Codex Standards for Canned Applesauce (ALINORM 99/27, Appendix II) and Canned Pears (ALINORM 99/27, Appendix III) were circulated for comment at Step 6 under CL 1998/25-PFV in July 1998, with a comment deadline of 20 September 1999. The comments submitted are presented in document CX/PFV 00/4-Add. 1.

PROPOSED DRAFT REVISED CODEX STANDARD FOR CANNED APPLESAUCE¹

(At Step 6 of the Procedure)

The Annex to this standard contains provisions which are not intended to be applied within the meaning of the acceptance provisions of Section 4.A (i)(b) of the General Principles of the Codex Alimentarius.

1. SCOPE

This Standard applies to Canned Applesauce as defined in Section 2 below and offered for direct consumption including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION**2.1 PRODUCT DEFINITION**

Canned applesauce is the comminuted or chopped product:

- (a) prepared from washed, clean apples, conforming to the characteristics of the fruit of *Malus domestica* Borkhausen which may have been peeled and which after trimming are sound;
- (b) packed with or without the addition of water as may be necessary to assure proper consistency and other permitted ingredients as described in Section 3.1.2; and
- (c) heat processed in an appropriate manner before or after being hermetically sealed in containers so as to prevent spoilage.

2.2 STYLES

2.2.1 Sweetened - with sugars and/or other carbohydrate sweeteners such as honey; not less than [15% total soluble solids (15.0° Brix)].

2.2.2 Unsweetened - without added sweeteners; not less than 9% total soluble solids (9.0° Brix).

2.2.3 Other Styles:

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

- (a) is sufficiently distinctive from other forms of presentation laid down in this standard;
- (b) meets all other requirements of the standard, as applicable; and
- (c) is adequately described on the label to avoid confusing or misleading the consumer.

2.3 CLASSIFICATION OF “DEFECTIVES”

A container that fails to meet the applicable requirements for total soluble solids, as set out in Section 2.2, should be considered a “defective”.

2.4 LOT ACCEPTANCE

A lot should be considered as meeting the applicable requirements for total soluble solids referred to in Section 2.2 when the number of “defectives” as defined in Section 2.3 does not exceed the acceptance number (c) of the appropriate sampling plan in the Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL 6.5).

¹ This proposed draft standard revises CODEX STAN 17-1981.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Apples as defined in Section 2.1(a).

3.1.2 Other Permitted Ingredients

- (a) water;
- (b) salt (sodium chloride);
- (c) sugars as defined in the Codex Alimentarius and/or other carbohydrate sweeteners such as honey;
- (d) spices.

3.2 QUALITY CRITERIA

Applesauce shall have normal flavour, odour and colour and shall possess texture characteristic of the product.

4. FOOD ADDITIVES

<u>No.</u>	<u>Name of food additive</u>	<u>Maximum Level</u>
4.1 ACIDIFYING AGENTS		
296	Malic acid	Limited by GMP
330	Citric acid	Limited by GMP
4.2 ANTIOXIDANTS		
300	Ascorbic acid	150 mg/kg, [singly or in combination]
315	[Isoascorbic acid]	
4.3 FLAVOURINGS		
	Natural and artificial flavours except those which reproduce the flavour of apple	Limited by GMP
[4.4 COLOURS		
129	Allura Red AC	[200 mg/kg, singly or in combination]
123	Amaranth	
143	Fast Green FCF	
102	Tartrazine	
110	Sunset Yellow FCF	
133	Brilliant Blue FCF	
132	Indigotine]	

5. CONTAMINANTS

5.1 HEAVY METALS

<u>Metal</u>	<u>Maximum Level</u>
Lead (Pb)	1 mg/kg
Tin (Sn)	250 mg/kg, calculated as Sn]

5.2 PESTICIDE RESIDUES

The products covered by the provisions of this standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission for these products.

6. HYGIENE

6.1 It is recommended that canned applesauce be prepared in accordance with the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997) and other appropriate Codes of Hygienic Practice as recommended by the Codex Alimentarius Commission.

6.2 To the extent possible in good manufacturing practice, canned applesauce shall be free from objectionable matter.

6.3 When tested by appropriate methods of sampling and examination, canned applesauce shall be:

- (a) free from micro-organisms capable of development in the product under normal conditions of storage and
- (b) shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to health

7. LABELLING

7.1 Canned applesauce shall be labelled in accordance with the General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

7.2 THE NAME OF THE PRODUCT

7.2.1 The name of the product shall be "Applesauce".

7.2.2 If the product has been sweetened in accordance with the provisions of Section 2.2.1, the name of the product shall be accompanied by the designation "Sweetened" in close proximity to the name of the food.

7.2.3 If the product has not been sweetened and conforms with the requirements of Section 2.2.2, the designation "Unsweetened" may be used in close proximity to the name of the food.

7.2.4 The name of the product shall be accompanied in close proximity by a declaration of any seasoning or flavouring which characterizes the product, e.g., "with x" as appropriate.

7.2.5 If the product is produced in accordance with the provisions for other styles in Section 2.2.3, 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.

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

8. METHODS OF ANALYSIS AND SAMPLING

See Codex Alimentarius Volume 13.

This text is intended for voluntary application by commercial partners and not for application by governments.

A1. QUALITY CRITERIA

A1.1 COLOUR

[Except for applesauce containing artificial colour,] the product should have a normal colour which should not be excessively dull, grey, pink, green, or yellow. Canned applesauce containing permitted ingredients or additives should be considered to be of characteristic colour when there is no abnormal discoloration for the respective substances used.

A1.2 FLAVOUR

Canned applesauce should have a normal flavour and odour free from flavours or odours foreign to the product and canned applesauce with special ingredients should have a flavour characteristic of that imparted by the applesauce and the other substances used.

A1.3 CONSISTENCY

The product should possess a consistency that - after stirring and emptying the applesauce from the container to a dry flat surface - may be moderately mounded but is not excessively stiff or may be slightly thin so that it levels itself and such that at the end of two minutes there may be moderate but not excessive separation of free liquid.

A1.4 DEFECTS

The number, size, and prominence of defects (such as seeds or particles thereof, peel, carpel tissue, bruised apple particles, dark particles, and any other extraneous material of like nature) should not seriously affect the appearance or the eating quality of the product.

A1.5 CLASSIFICATION OF “DEFECTIVES”

A container that fails to meet one or more of the applicable quality requirements, as set out in Section A1.1 through A1.4, should be considered a “defective”.

A1.6 LOT ACCEPTANCE

A lot should be considered as meeting the applicable quality requirements referred to in Section A1.5, when the number of “defectives”, as defined in Section A1.5, does not exceed the acceptance number (c) of the appropriate sampling plan in the Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL 6.5).

[A2. WEIGHTS AND MEASURES

A2.1 FILL OF CONTAINER

A2.1.1 Minimum Fill

The container should be well filled with applesauce and the product should occupy not less than 90% 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.

A2.1.2 Classification of “Defectives”

A container that fails to meet the requirement for minimum fill (90% container capacity) of Section A2.1.1 should be considered a “defective”.

A2.1.3 Lot Acceptance

A lot should be considered as meeting the requirement of Section A2.1.1 when the number of “defectives”, as defined in Section A2.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan in the Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL 6.5).]

PROPOSED DRAFT REVISED CODEX STANDARD FOR CANNED PEARS²
(At Step 6 of the Procedure)

The Annex to this standard contains provisions which are not intended to be applied within the meaning of the acceptance provisions of Section 4.A (i)(b) of the General Principles of the Codex Alimentarius.

1. SCOPE

This Standard applies to Canned Pears as defined in Section 2 below and offered for direct consumption including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Canned pears is the product:

- (a) prepared from pears of proper maturity of commercial canning varieties conforming to the characteristics of the fruit of *Pyrus communis* or *Pyrus sinensis*, which pears are peeled, cored, and stemmed, except that whole may not need to be peeled, cored, or stemmed and half pears may not need to be peeled;
- (b) packed with water or other suitable liquid packing medium and may be packed with seasonings or other flavouring ingredients; and
- (c) heat processed in an appropriate manner before or after being hermetically sealed in containers so as to prevent spoilage.

2.2 PRESENTATION

Any presentation of the product is permitted provided that it:

- meets all requirements of this standard; and
- is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Pears as defined in Section 2.1(a) and liquid packing medium appropriate to the product.

3.2 PACKING MEDIA³

[Canned pears may be packed in any one of the following:

3.2.1. **Water** - in which water is the sole packing medium;

3.2.2 **Fruit juice** - in which pear juice, or any other compatible fruit juice, is the sole packing medium;

² This proposed draft standard revises CODEX STAN 61-1981.

³ See Appendix to Part I of Codex Alimentarius Vol. 5A, Second Edition.

3.2.3 **Water and fruit juice(s)** - in which water and pear juice, or water and any other single fruit juice or water and two or more fruit juices, are combined to form the packing medium;

3.2.4 **Mixed fruit juices** - in which two or more fruit juices, which may include pear, are combined to form the packing medium;

3.2.5 **With sugar(s)** - any of the foregoing packing media (Sections 3.2.1 through 3.2.4) may have one or more of the following sugars added: sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup.]

or

[In accordance with the Proposed Draft Codex Guidelines on Packing Media for Canned Fruit]

3.3 OTHER PERMITTED INGREDIENTS

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

3.4 QUALITY CRITERIA

Canned pears shall have normal flavour, odour and colour and possess texture characteristic of the product.

4. FOOD ADDITIVES

<u>No</u>	<u>Name of food additive</u>	<u>Maximum level</u>
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4.1 ACIDIFYING AGENTS

330	Citric Acid	Limited by GMP
296	Malic Acid	
334	L-Tartaric Acid	
270	Lactic Acid	

[4.2 COLOURS (PERMITTED ONLY IN SPECIALTY PACKS)]

123	Amaranth	[200 mg/kg of the final product singly or in combination]
129	Allura Red AC	
143	Fast Green FCF	
124	Ponceau 4R	
102	Tartrazine]	

4.3 FLAVOURINGS

Natural and Artificial Flavours, except those which reproduce the flavour of pears.	Limited by GMP
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5. CONTAMINANTS

5.1 HEAVY METALS

[Metal	Maximum Level
Lead (Pb)	1 mg/kg
Tin (Sn)	250 mg/kg, calculated as Sn]

5.2 PESTICIDE RESIDUES

The products covered by the provisions of this standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission for these products.

6. HYGIENE

6.1 It is recommended that canned pears be prepared and handled in accordance with the Recommended International Code of Practice - General Principles of Food Hygiene, (CAC/RCP 1-1969, Rev. 3-1997) and the Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 1-1989 and other appropriate Codes of Hygienic Practice recommended by the Codex Alimentarius Commission.

6.2 To the extent possible in good manufacturing practice, canned pears shall be free from objectionable matter.

6.3 When tested by appropriate methods of sampling and examination, canned pears:

- shall be free from microorganisms capable of development in the product under normal conditions of storage; and
- shall not contain any substance originating from microorganisms in amounts which may represent a hazard to health.

7. LABELLING

7.1. Canned pears shall be labelled in accordance with the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

7.2 THE NAME OF THE PRODUCT

7.2.1 The name of the product shall be "Pears".

[7.2.2 When pears are artificially coloured, the declaration should be made as part of the name or in close proximity to the name, including the characterizing colour, e.g. "Pears - Artificially coloured Green".]

7.2.3 As part of the name or in close proximity to the name, any flavouring which characterizes the product should be declared, e.g. "With—X—", where appropriate.

7.3 LABELLING OF NON-RETAIL CONTAINERS

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

8. METHODS OF ANALYSIS AND SAMPLING

See Codex Alimentarius Volume 13.

This text is intended for voluntary application by commercial partners and not for application by governments.

A1. DESCRIPTION

A1.1 VARIETAL TYPE

Any suitable variety of cultivated pears may be used.

A1.2 STYLES

A1.2.1 *Whole* - peeled or unpeeled, with cores removed or left in.

A1.2.2 *Halves* - peeled or unpeeled, with stems and cores removed, and cut into two approximately equal parts.

A1.2.3 *Quarters* - peeled and cut into four approximately equal parts.

A1.2.4 *Sliced* - peeled and cut into wedge-shaped sectors.

A1.2.5 *Diced* - peeled and cut into cube-like parts.

A1.2.6 *Pieces or Irregular Pieces* - peeled and comprising irregular shapes and sizes.

A1.3 Other Styles

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

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

A2. OTHER COMPOSITION AND QUALITY FACTORS

A2.1 QUALITY CRITERIA

A2.1.1 Colour

[Except for artificially coloured canned pears,] the pears should have normal colour characteristics for canned pears and typical of the variety used, and a slight pink discoloration should not be regarded as a defect. Canned pears containing other permitted ingredients should be considered of characteristic colour when there is no abnormal discoloration for the respective ingredient used.

A2.1.2 Flavour

Canned pears should have a normal flavour and odour free from flavours and odours foreign to the product. Canned pears with special flavourings should have the flavour characteristic of that imparted by the pears and the other substances used.

A2.1.3 Texture

The pears may be variable in tenderness but should neither be mushy nor excessively firm.

A2.1.4 Uniformity of Size

Whole, Halves, Quarters - in 95 percent 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.

A2.1.5 Defects and allowances

The product should be substantially free from defects such as harmless plant material, peel (in peeled styles), core material, blemished units, and broken units. Certain common defects should not be present in amounts greater than the following limitations:

Defects	Maximum limits
<p>(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).</p>	<p>(i) Total, 30% by count; or 3 units per container when count is less than 10; provided the sample average is no more than 30%; - 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 20% for blemished.</p>
<p>(b) Broken (In Whole, Halves, and Quartered Styles only - 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)</p>	<p>20% by count; or 2 units per container when count is less than 10; provided the sample average is no more than 10%.</p>
<p>(c) Core material (Average) (Except in "Whole-Not Cored" Styles) 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</p>	<p>3 units per kg of total contents.</p>
<p>(d) Peel (Average) (Except in "Unpeeled" Styles) (Peel that adheres to pear flesh or is found loose in the container)</p>	<p>10 cm² (10 sq. cm.) aggregate area per kg of total contents.</p>
<p>(e) Harmless plant material:</p>	<p>1 piece per 3 kg of total contents (in styles in which the stem is customarily removed)</p>
<p>(i) Stems or stalks</p>	
<p>(ii) Leaf (or similar vegetable material)</p>	<p>2 cm² per kg of total contents</p>
<p>(f) Seeds (Average) (Except in "Whole-Not-Cored" Styles) (Any one pear seed or the equivalent in pieces of one seed that are not included in core material)</p>	<p>8 per kg of total contents</p>

A2.4.6 Classification of “Defectives”

A container that fails to meet one or more of the applicable quality requirements, as set out in Sections A2.4.1 through A2.4.5 (except those based on sample average) should be considered a “defective”.

A2.4.7 Lot Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in Section A2.4.6 when:

- (a) for those requirements which are not based on averages, the number of “defectives”, as defined in Section A2.4.6, does not exceed the acceptance number (c) of the appropriate sampling plan in the Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5); and
- (b) the requirements of Section A2.4.5, which are based on sample average, are complied with.

A3. WEIGHTS AND MEASURES

[A3.1 FILL OF CONTAINER

A3.1.1 Minimum Fill

The container should be well filled with fruit and the product (including packing medium) should occupy not less than 90% 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.

A3.1.1.1 CLASSIFICATION OF “DEFECTIVES”

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of Section A3.1.1 should be considered a “defective”.

A3.1.1.2 LOT ACCEPTANCE

A lot will be considered as meeting the requirement of Section A3.1.1 when the number of “defectives”, as defined in Section A3.1.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan in the Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5).]

[A3.1.2 Minimum Drained Weight

A3.1.2.1 The drained weight of the product should be not less than the following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.⁴

Whole Style	50%
Halves, Quarters, Slices, Pieces	53%
Diced	[60%][56%]

A3.1.2.2 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.]

A4. OTHER LABELLING REQUIREMENTS

A4.1 The style, as appropriate, should be declared as a part of the name or in close proximity to the name:

“Whole” (when peeled and not cored); and additionally “Stemmed” or “Unstemmed”, as the case may be.

⁴ 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.

“Whole Unpeeled” (when not peeled and not cored); and additionally “Stemmed” or “Unstemmed”, as the case may be.

“Whole - Cored” (when peeled and cored).

“Whole Unpeeled - Cored” (when not peeled but cored).

“Halves” (when peeled).

“Halves Unpeeled” (when not peeled).

“Quarters” or “Quartered”.

“Slices” or “Sliced”.

“Dice” or “Diced” or “Cubes”.

“Pieces” or “Irregular Pieces”.

A4.2 Other styles - If the product is produced in accordance with the other styles provision (Section A1.3), 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.

A4.3 The name of the product may include the varietal type [or, optionally, designation of “Dessert Type” if the variety is other than “Bartlett”].