

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

Agenda Item 2(b)

CX/PFV 06/23/3
October 2006

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

23rd Session

Arlington, VA (Washington DC metro area), U.S.A.,
16 – 21 October 2006

PROPOSAL FOR A LAYOUT FOR CODEX STANDARDS ON PROCESSED FRUITS AND VEGETABLES

BACKGROUND

General Considerations

1. The last session of the Codex Committee on Processed Fruits and Vegetables agreed¹ on the need to have a Layout for Codex Standards on Processed Fruits and Vegetables which would help to ensure a consistent approach as regards format, terminology and provisions where appropriate. It was pointed that the Layout should have a simple format and capture all essential provisions required in Codex commodity standards for processed fruits and vegetables to facilitate its application by Codex Members.
2. The text in the Layout should be considered as of general application to Codex standards for processed fruits and vegetables and can be adjusted when there is a need to do so due to characteristics of the product. Allowances for additional text depending upon the specificity of the product are given in the blank space. The Layout should serve as a basis for the development of new Codex standards for processed fruits and vegetables while any deviations from standardized language should be justified from a technical point of view considering the peculiarities of the product with a view to keeping consistency in the format and standardized texts across Codex standards for processed fruits and vegetables.
3. The proposed Layout for Codex standards for processed fruits and vegetables is based on the Codex Format for Commodity Standards as set out in the Procedural Manual of the Codex Alimentarius Commission² with some adjustments to incorporate provisions specific to processed fruits and vegetables which usually apply across standards for these products.

Specific considerations

4. **Scope** - This section applies consistently in the revised standards for processed fruits and vegetables e.g. canned applesauce, canned pears, canned stone fruits³, etc. The standardized language as indicated in the proposed Layout applies across the board with necessary adjustments, usually by including additional provisions, depending on the nature of the product.
5. **Description** - This section usually comprises a number of sub-sections on:
 6. **Product Definition** - including “other definitions” as necessary e.g. Codex Standard for Jams (Fruit Preserved) and Jellies. The definition of the product may include a reference to the genus and the species. In some Codex standards for processed fruits and vegetables, specific provisions for species apply e.g. Codex Standard for Canned Stone Fruits.

¹ ALINORM 05/28/27 paras. 105 - 106.

² Format for Codex Commodity Standards, Section II, Codex Alimentarius Procedural Manual, 15th Edition, pages 88 - 91.

³ Codex standards and related texts are available for downloading at: <http://www.codexalimentarius.net/>

7. Product Designation - some Codex standards for processed fruits and vegetables e.g. processed tomato concentrates, table olives, etc. include provisions for different commercial types which are characteristic of the product. Therefore, no standardized text applies to this section.
8. Colour, Pack & Varietal Types - Some Codex standards for processed fruits and vegetables include provisions for varietal type e.g. Codex standards for canned pears, canned stone fruits, etc. Some of these standards describe the different varietal types while other introduce general provisions such as those indicated in the proposed Layout e.g. Codex standards for canned strawberries, mango chutney, etc. Provisions for colour types apply to a few standards for processed fruits and vegetables and they always refer to specific provisions relevant to the product. Provisions for types of pack also apply to a few standards. Some of them refer to regular/solid packs plus other types. Therefore, there is no standardized text applying to these sections.
9. Styles - A number of Codex standards for processed fruits and vegetables contain provisions for styles usually by listing/describing the different forms of presentation. Some of these standards also include additional provisions for “other styles”. In this case, the proposed Layout presents two options that usually appear in Codex standards for processed fruits and vegetables, one being a longer more detailed statement. The second option could be considered as a summarized version of the first one. Most of the Codex standards for processed fruits and vegetables containing a section on “other styles” incorporate the longer statement. In both cases, the standardized language as indicated in the proposed Layout, applies followed by relevant labelling provisions (see para. 26).
10. It is noted that a section on “other styles” does not necessarily follow requirements for different styles. There are a number of Codex standards for processed fruits and vegetables containing provisions for different styles but not incorporating additional provisions for “other styles”.
11. Other Provisions - may be also incorporated depending on the nature of the product. No standardized language applies in this case.
12. **Essential composition and quality factors** - This section is usually divided into two main sub-sections relating to:
- (a) Composition, and
 - (b) quality criteria
13. Composition - includes provisions for basic ingredients, packing media (if appropriate) and other permitted ingredients (optional ingredients).
14. In case of provisions for packing media, the last session of the Committee agreed⁴ to refer to the relevant general provisions for packing media for canned fruits and/or vegetables and, if appropriate, to include additional provisions in this respect. However, the Committee recognized that there might be cases where specific provisions for packing media may be required depending on the nature of the product. This decision is reflected in the proposed Layout by introducing 3 possible options under this provision.
15. Quality Criteria - usually contain general or separate provisions for colour, odour, taste and texture. Sometimes the word “flavour” could be used to designate either “odour” or “taste” depending on which term (“odour” or “taste”) is not appearing in the standard. When the standards incorporate general provisions for these parameters, a standardized text as indicated in the proposed Layout apply.
16. In addition, quality criteria also comprise provisions for “defects” which include “definitions” and “allowances” and, in a few standards, provisions for “sizing” (uniformity). These provisions are specific to the product thus, no standardized text applies.
17. Quality criteria also provide for provisions on classification of “defectives” vis-à-vis “lot acceptance” which apply to most of the Codex standards for processed fruits and vegetables while carrying standardized text as indicated in the proposed Layout. In addition, the last session of the Committee agreed to enter an exception for non-retail containers as these provisions do not apply to this type of containers⁵.

⁴ ALINORM 05/28/27, paras. 14 - 15.

⁵ ALINORM 05/28/27, paras. 24 and 36.

18. **Food Additives** - The last session of the Committee agreed⁶ that, as the Codex Committee on Food Additives and Contaminants (CCFAC) was considering the relationship between Codex commodity standards and the General Standard for Food Additives (GSFA), for the time being it would be appropriate to keep a “list of individual provisions for food additives subject to endorsement by the Codex Committee on Food Additives and inclusion in the GSFA”.
19. In this regard, the last session of the Codex Alimentarius Commission agreed⁷ with the CCFAC proposed approach to replace food additive provisions in those commodity standards that have one-to-one correspondence with the GSFA food categories, with a text referring to the provisions of the relevant GSFA food category.
20. A number of Codex Members and Observers have also observed at different Codex committee meetings that the list of food additive provisions might be kept for those additives requiring a numerical level (Tables 1 & 2 of the GSFA) while those commodities regulated by Table 3 of the GSFA namely - additives permitted for use in food in general unless otherwise specified in accordance with GMP - could be exempted from the list and included under a general statement.
21. These approaches are reflected in the proposed Layout.
22. **Contaminants** - The Layout reflects the decision⁸ taken at the last session of the Committee which is in line with the format of Codex commodity standards i.e. having two separate sections on “pesticide residues” and “other contaminants” and incorporating a standardized text that usually applies across Codex commodity standards. Additional provisions in this respect due to the nature of the product, especially those products which are concentrated and re-diluted or are made up of concentrates namely: to adjust the maximum pesticide residue limit/maximum contaminant level by using a concentration factor for the corresponding fresh or single strength product, need to be endorsed by the relevant horizontal committees i.e. Codex Committees on Pesticide Residues and Contaminants, respectively.
23. **Hygiene** - This section is divided into two sub-sections containing standardized provisions applying across Codex commodity standards as set out in the Procedural Manual of the Commission⁹. An additional footnote for those sterilized products in accordance with the Code of Hygienic Practice for Low-acid and Acidified Low-acid Canned Foods is being incorporated in view of the recommendation of the Codex Committee on Food Hygiene in this regard. Additional hygiene provisions may be included depending on the characteristics specific to the product and are subject to endorsement by CCFH.
24. **Weights and Measures** - This section is divided into sub-sections relating to “fill of containers” and “minimum drained weight” (when appropriate). Provisions for fill of containers accounts for “minimum fill”, classification of “defectives” and “lot acceptance”. All these provisions carry standardized text as indicated in the proposed Layout with some adjustments for provisions for drained weight where some Codex standards for processed fruits and vegetables incorporates details of the different percentages while in others they include a general provision.
25. Some delegations questioned the inclusion of provisions for weights and measures as they are already covered by the Codex General Standard for the Labelling of Prepackaged Foods (GSFL). Provisions for weights and measures are in accordance with the Format of Codex Commodity Standards. In addition, the last session of the Committee introduced adjustments to this section considering the existence of flexible containers which do not comply with the current standardized provisions which refer mainly to rigid containers. This concern is also reflected in the proposed Layout.
26. **Labelling** - This section incorporates a reference for compliance with the General Standard for the Labelling of Prepackaged Foods which applies across Codex commodity standards. Provisions for non-retail containers and “other styles” (when applicable) also carry standardized provisions which are common to Codex commodity standards. Additional labelling provisions depending on the peculiarities of the product are subject to endorsement by the Codex Committee on Food Labelling.

⁶ ALINORM 05/28/27, paras. 16- 18.

⁷ ALINORM 05/28/41, para. 189.

⁸ ALINORM 05/28/27, para. 39.

⁹ Relations between commodity and general committees, Section II, Codex Alimentarius Procedural Manual, 15th Edition, page 95.

27. **Methods of Analysis and Sampling** - This section should incorporate a list of methods of analysis for the combination “provision in the Standard/method” and appropriate sampling plans (when needed). There is not a common approach to this section in Codex commodity standards although the trend is to keep the list of methods in the commodity standards as endorsed by the Codex Committee on Methods of Analysis and Sampling. A proposed format for keeping provisions for methods of analysis is indicated in the Layout. In addition, an example of sampling plans is proposed for guidance to the Committee.

CONCLUSION

28. The Committee is invited to comment on the attached proposed Layout for Codex Standards on Processed Fruits and Vegetables (see Annex).

**PROPOSED LAYOUT FOR
CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES**

Secretariat Note: In the text the following conventions are used:
 [text]: For optional texts or text for which several alternatives exist depending on the produce.
 { text }: For text which explains the use of the standard layout. This text does not appear in the standards.

1 SCOPE

This Standard applies to [common name of the product], 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.

..... 1

2 DESCRIPTION

2.1 PRODUCT DEFINITION

[Common name of the product] is the product:

- (a) prepared from¹;
- (b) [packed with water or other suitable liquid packing medium as indicated in Section 3.1.2]²;
- (c) [processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage]².
- (d) 1

2.2 PRODUCT DESIGNATION

[Common name of the product] are classified in one of the following
 1

2.3 TYPES OF PACK

- (a) Solid Pack - without any added liquid or with only a small amount of liquid³
- (b) Regular Pack - with a packing medium added, as specified in Section 3.1.2.
- (c) 1

2.4 TYPES OF COLOUR

[Common name of the product] are classified in one of the following
 1

2.5 SPECIES

..... 1

2.6 VARIETAL TYPES

Any commercially cultivated variety (cultivar) suitable for canning may be used.

or

[Common name of the product] of distinct varietal types should be designated
 1

2.7 STYLES

..... 1

¹ {Additional provisions may be made depending on the nature of produce}

² {Depending on the nature of produce the provision(s) in brackets may be removed as not applicable/necessary}

³ Codex Guidelines for Packing Media for Canned Fruits.

2.7.1 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;
- (b) 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
- (c) is adequately described on the label to avoid confusing or misleading the consumer.

or

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;
- (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.

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

[Common name of the fruit/vegetable] as defined in Section 2.1 [and liquid packing medium appropriate to the product]²

..... 1

3.1.2 Packing Media

I(a) In accordance with the Codex Guidelines on Packing Media for Canned Fruits (CAC/GL 51-2003) and/or Codex Guidelines on Packing Media for Canned Vegetables (CAC/GL ##-###).

I(b) In addition, the following specific provisions apply:

..... 1

or

II. [Common name of the product] may be packed in the following packing media:

..... 1

3.1.3 Other Permitted Ingredients

..... 1

3.2 QUALITY CRITERIA

[Common name of the product] should have normal colour, flavour and odour and shall possess a texture characteristic of the product.

..... 1

3.2.2 Uniformity of Size

..... 1

3.2.3 Definition of Defects

[Defect] - [Definition]

..... 1

3.2.4 Defects and Allowances

..... 1

Certain common defects should not be present in amounts greater than the following limitations:

Defects	Maximum limits
(a) [Defect]	[specific provisions as appropriate e.g. percentages, by count, by units, by pieces, in cm ² /mm ² of aggregate area per kg of total contents, etc.]

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)]², should be considered as a “defective”.

3.4 LOT ACCEPTANCE

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

- (a) for those requirements which are not based on averages, the number of “defectives”, as defined in Section 3.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5; and
- (b) the requirements of Section 3.2, which are based on sample averages, are complied with.
- (c)¹

These acceptance criteria do not apply to non-retail containers.

4 FOOD ADDITIVES

I(A) FUNCTIONAL CLASS [E.G. ACIDIFYING AGENTS]

INS No.	Name of the Food Additive	Maximum Level
###	XXX	Limited by GMP or numerical level (subject to endorsement by the Codex Committee on Food Additives and inclusion in the General Standard for Food Additives)
###	XXX	
###	XXX	

and/or

I(B) Any [functional class of the additive] used in accordance with Table 3 of the General Standard for Food Additives (GSFA) in food category [GSFA food category of the product(s) covered by the Standard] may be used in food subject to this Standard.

or

II. Food additives listed in Tables 1, 2 [and 3] of the Codex General Standard for Food Additives in Food Categories [Food Category of the Product(s)] may be used in foods subject to this Standard.

5 CONTAMINANTS

5.1 PESTICIDE RESIDUES

5.1.1 The product covered by the provisions of this Standard shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this product.

.....^{1,4}

5.2 OTHER CONTAMINANTS

5.2.1 The product covered by the provisions of this Standard shall comply with those maximum levels for contaminants established by the Codex Alimentarius Commission for this product.

.....^{1,5}

⁴ {Subject to endorsement by the Codex Committee on Pesticide Residues}
⁵ {Subject to endorsement by the Codex Committee on Contaminants}

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, Rev. 4-2003), [*Recommended International Code of Hygienic Practice for Aseptically Processed and Packaged Low-Acid Foods (CAC/RCP 40-1993)*, *Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 2-1993)*]² and other relevant Codex texts such as codes of hygienic practice and codes of practice.

6.2 The product 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)*.

[* For products that are rendered commercially sterile in accordance with the *Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 2-1993)*, microbiological criteria are not recommended as they do not offer benefit in providing the consumer with a food that is safe and suitable for consumption.]²

1, 6

7 WEIGHTS AND MEASURES

7.1 FILL OF CONTAINER

7.1.1 Minimum Fill

[Flexible containers should be filled as full as commercially practicable having regard for the concentration of the product.]² [When packed in rigid containers]², the container should be well filled with fruit/vegetable and the product [(including packing medium)]² 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.

7.1.2 Classification of “Defectives”

A [rigid]² container that fails to meet the requirement for minimum fill (90% container capacity) 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 following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled⁷.

(a)	[Style 1]	##%
(b)	[Style 2]	##%
(c)	[Style n]	##%

7.1.4.2 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.

8 LABELLING

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

8.1 NAME OF THE PRODUCT

⁶ {Subject to endorsement by the Codex Committee on Food Hygiene}

⁷ **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.**

8.1.1 The name of the product shall be [Common name of the product or common name of the fruit/vegetable]
^{1, 8}

8.1.1 **Other Styles** - If the product is produced in accordance with the other styles provision (Section 2.7.1), 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 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 SAMPLING⁹

Provision	Method	Principle	Note	Type
Should match with the provision in the Standard			Any additional clarification as appropriate	##

Example:

Provision	Method	Principle	Note	Type
Arsenic	ISO 6634:1982	Spectrophotometry, silver diethyldithiocarbamate		III

⁸ {Subject to endorsement by the Codex Committee on Food Labelling}

⁹ {Subject to endorsement by the Codex Committee on Methods of Analysis and Sampling}

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 2**(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