

# codex alimentarius commission



FOOD AND AGRICULTURE  
ORGANIZATION  
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WORLD  
HEALTH  
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**ALINORM 07/30/27**

**JOINT FAO/WHO FOOD STANDARDS PROGRAMME**

**CODEX ALIMENTARIUS COMMISSION**

**30<sup>th</sup> Session**

**Rome, Italy, 2 - 7 July 2007**

**REPORT OF THE 23<sup>rd</sup> SESSION OF THE  
CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES**

**Arlington, VA (Washington DC metro area), U.S.A.**

**16 – 21 October 2006**

**NOTE: This report contains Codex Circular Letter CL 2006/56-PFV.**

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CX 5/5.2

CL 2006/56-PFV  
December 2006

**TO** : - Codex Contact Points  
- Interested International Organizations in Observer Status with Codex

**FROM** : Secretary, Codex Alimentarius Commission,  
Joint FAO/WHO Food Standards Programme,  
Viale delle Terme di Caracalla 00153,  
Rome, Italy

**SUBJECT** : **REPORT OF THE 23<sup>RD</sup> SESSION OF THE  
CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES (ALINORM 07/30/27)**

**PART A: MATTERS FOR ADOPTION BY THE 30<sup>th</sup> SESSION OF THE CODEX ALIMENTARIUS COMMISSION**

**Draft Standards at Step 8 of the Procedure**

1. **Draft Codex Standard for Pickled Fruits and Vegetables** (para. 38 and Appendix II).
2. **Draft Codex Standard for Processed Tomato Concentrates** (para. 54 and Appendix III).
3. **Draft Codex Standard for Preserved Tomatoes** (para. 73 and Appendix IV).
4. **Draft Codex Standard for Certain Canned Citrus Fruits** (para. 89 and Appendix V).

Governments and interested international organizations in observer status with Codex wishing to submit comments on the above documents should do so in writing in conformity with the *Guide to the Consideration of Standards at Step 8 of the Procedure for the Elaboration of Codex Standards including Consideration of any Statements relating to Economic Impact* (Procedural Manual of the Codex Alimentarius Commission) to the above address, PREFERABLY BY E-MAIL, **before 15 May 2007**.

**Proposed draft Standards at Step 5 of the Procedure**

5. **Proposed draft Codex Standard for Jams, Jellies and Marmalades** (para. 146 and Appendix VI).
6. **Proposed draft Codex Standard for Certain Canned Vegetables (General Provisions)** (para. 114 and Appendix VII).

Governments and interested international organizations in observer status with Codex wishing to submit comments on the above documents, including implications which these documents or any provisions thereof may have for their economic interests, should do so in writing in conformity with the *Uniform Procedure for the Elaboration of Codex Standards and Related Texts* (Procedural Manual of the Codex Alimentarius Commission) to the above address, PREFERABLY BY E-MAIL, **before 15 May 2007**.

**PART B: REQUEST FOR COMMENTS AND INFORMATION**

7. **Proposed draft Annexes specific to certain canned vegetables** (*proposed draft Codex Standard for Certain Canned Vegetables*) (para. 114 and Appendix VII).
8. **Proposed draft Codex Guidelines for Packing Media on Canned Vegetables** (para. 144 and Appendix VIII).
9. **Proposed Layout for Codex Standards on Processed Fruits and Vegetables** (para. 11 and Appendix IX).

Governments and interested international organizations in observer status with Codex wishing to submit comments on the above documents should do so in writing, PREFERABLY BY E-MAIL, **before 31 August 2007**.

10. **Proposals for Amendments to the Priority List for the Standardization of Processed Fruits and Vegetables** (para. 149 and Appendix XI).
11. **Methods of Analysis for Processed Fruits and Vegetables - Aqueous Coconut Products** (para. 156 and Appendix XII).
12. **Food Additive Provisions for Processed Fruits and Vegetables** (para. 171 and Appendix XIII).

Governments and interested international organizations in observer status with Codex wishing to submit comments on the above documents should do so in writing, PREFERABLY BY E-MAIL, **before 31 December 2007**.

## SUMMARY AND CONCLUSIONS

The 23<sup>rd</sup> Session of the Codex Committee on Processed Fruits and Vegetables reached the following conclusions:

### MATTERS FOR CONSIDERATION BY THE CODEX ALIMENTARIUS COMMISSION

The Committee agreed to:

#### Adoption of Codex standards and related texts

- forward the *draft Codex Standards for Pickled Fruits and Vegetables, Processed Tomato Concentrates, Preserved Tomatoes* and *Certain Canned Citrus Fruits* to the 30<sup>th</sup> Session of the Commission for final adoption at Step 8 (paras. 38, 54, 73 & 89 and Appendices II, III, IV & V respectively).
- forward the *proposed draft Codex Standards for Jams, Jellies and Marmalades as well as Certain Canned Vegetables (General Provisions)* to the 30<sup>th</sup> Session of the Commission for preliminary adoption at Step 5 (paras. 146 & 114 and Appendices VI & VII respectively).

#### Approval of new work

- submit a proposal for the development of *Sampling Plan Including Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables* as new work for review by the Executive Committee and approval by the Commission (para. 148 and Appendix X).

### MATTERS OF INTEREST TO THE CODEX ALIMENTARIUS COMMISSION

The Committee agreed to:

- return the *proposed draft Annexes specific to certain canned vegetables (proposed draft Codex Standard for Certain Canned Vegetables)* to Step 3 for comments, revision by a Working Group led by France and consideration by the next session of the Committee (para. 114 and Appendix VII).
- return the *proposed draft Codex Guidelines for Packing Media on Canned Vegetables* to Step 3 for comments, revision by a Working Group led by France and consideration by the next session of the Committee (para. 114 and Appendix VIII).
- append the *proposed Layout for Codex Standards on Processed Fruits and Vegetables* to the Report of its Session for comments, revision by the Codex Secretariat and consideration by the next session of the Committee (para. 11 and Appendix IX).
- left unchanged the *Priority List for the Standardization of Processed Fruits and Vegetables* while continuing to request comments on proposals for amendments to the *Priority List* for consideration at its next session (para. 149 and Appendix XI).
- request comments on *methods of analysis for aqueous coconuts products* for consideration at its next session (para. 156 and Appendix XII).
- Request comments on *food additive provisions for the standards under study in the Step Procedure* for consideration at its next session (para. 171 and Appendix XIII).
- set up the following timeframes for completion of work of the standards under consideration in the Step Procedure in accordance with the recommendation of the Commission:
  - *proposed draft Codex Standard for Certain Canned Vegetables(General Provisions)*: Finalization by the 32<sup>nd</sup> Session of the Commission (2009) (para. 113).
  - *Proposed draft Annexes specific to certain canned vegetables (proposed draft Codex Standard for Certain Canned Vegetables)*: Finalization by the 34<sup>th</sup> Session of the Commission (2011) (para. 113).
  - *proposed draft Codex Standard for Jams, Jellies and Marmalades*: Finalization by the 32<sup>nd</sup> Session of the Commission (2009) (para. 145).

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## **INTRODUCTION**

1. The 23<sup>rd</sup> Session of the Codex Committee on Processed Fruits and Vegetables was held in Arlington, Virginia, USA, from 16 to 21 October 2006 at the kind invitation of the Government of the United States of America. Mr. Terry B. Bane, Chief of the Processed Products Branch, Fruit and Vegetable Programs, Agriculture Marketing Service of the United States Department of Agriculture, chaired the Session. The Session was attended by delegates from 21 Member countries and 1 Member Organization and Observers from 2 international organizations. The list of participants is attached to this report as Appendix I.

## **OPENING OF THE SESSION**

2. The Session was opened by Mr. Lloyd C. Day, Administrator, Agriculture Marketing Service of the United States Department of Agriculture.

## **ADOPTION OF THE AGENDA (Agenda Item 1)<sup>1</sup>**

3. The Committee adopted the Provisional Agenda as its Agenda for the Session and agreed to postpone the discussion of Agenda Item 2(b) – Proposed Layout for Codex Standards for Processed Fruits and Vegetables after Agenda Item 4(b) on the understanding that it would be more effective to consider the Proposed Layout after concluding the technical discussion on the draft and proposed draft Standards under Agenda Items 3 and 4.

4. In order to expedite its work on the food additives sections in the standards under consideration, the Committee agreed to establish an intra-session Working Group on Food Additives<sup>2</sup> that would develop recommendations on food additive provisions related to items 3(a) – 4(b) focusing its work on food additives that were technologically necessary in the functional classes identified, taking into account, to the extent possible, the General Standard for Food Additives (GSFA).

5. The delegation of the European Community (EC) presented CRD 1 on the division of competence between the European Community and its Member States according to paragraph 5, Rule II.5 of the Rules of Procedure of the Codex Alimentarius Commission.

## **MATTERS ARISING FROM THE CODEX ALIMENTARIUS COMMISSION AND ITS SUBSIDIARY BODIES (Agenda Item 2a)<sup>3</sup>**

6. The Committee noted matters referred by the 28<sup>th</sup> and 29<sup>th</sup> Sessions of the Commission regarding the proposed draft standards for processed tomato concentrates, preserved tomatoes and certain canned citrus fruits adopted at Step 5 and advanced to Step 6 for comments and consideration by the Committee. The Committee also noted the discontinuation of work on the proposed draft Standard for Soy Sauce and the allocation<sup>4</sup> of work on the development of regional standards for non-fermented soybean products and ginseng products to the FAO/WHO Coordinating Committee for Asia.

7. The Committee further noted the response of:

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<sup>1</sup> CX/PFV 06/23/1.

<sup>2</sup> United States of America (chair), Australia, Brazil, Canada, Costa Rica, European Community (rapporteur), France, Finland, Indonesia, Netherlands, Spain, Switzerland, United Kingdom and Thailand.

<sup>3</sup> CX/PFV 06/23/2, CRD 1 (Division of Competence between the European Community and its Member States).

<sup>4</sup> ALINORM 05/28/41, paras. 73 – 74 and Appendix VIII.

- the Committee on Food Hygiene in relation to an exception for compliance with the microbiological criteria of the Principles for the Establishment and Application of Microbiological Criteria for Foods in the case of commercially sterile products by including a footnote in the appropriate hygiene section when required;
- the response of the Committees on Pesticide Residues and Contaminants in relation to the allocation of the relevant concentration factor for those concentrated and re-diluted products that could be established by the Commodity committees concerned when there were no corresponding maximum pesticide residue limits nor maximum contaminant levels for the processed but for the fresh product developed by these horizontal committees; and
- the response of the Committee on Food Labelling as to the correct use of the term “sweetener” to differentiate “foodstuff” from “food additive” sweeteners by referring to “foodstuff with sweetening properties” when naming non-food additive sweeteners with the understanding that this term would be used only for description of ingredients in the standards and not for labelling purposes.

8. In addition, the Committee noted the decision of the 29<sup>th</sup> Session of the Commission to establish an *Ad Hoc* Intergovernmental Codex Task Force on Quick Frozen Foods to finalize both the quality and safety provisions of the Recommended International Code of Practice for the Handling and Processing of Quick Frozen Foods hosted by Thailand<sup>5</sup>.

9. The Committee acknowledged the request of the 29<sup>th</sup> Session of the Commission to provide a timeframe for completion of standards that had been approved prior to 2004 and agreed to consider this matter after completion of discussion of the relevant Agenda items.

#### **PROPOSED LAYOUT FOR CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES (Agenda Item 2b)<sup>6</sup>**

10. The Committee reiterated its agreement on the need to have a Layout for Codex Standards for Processed Fruits and Vegetables which would help to ensure a consistent approach as regards format and terminology in Codex standards for these products.

11. Due to time constraints, the Committee did not discuss the Layout, but agreed that it should be circulated for comments (Appendix IX). The Secretariat would then prepare a revised Layout for consideration by the next session of the Committee.

#### **DRAFT CODEX STANDARDS AT STEP 7**

#### **DRAFT CODEX STANDARD FOR PICKLED FRUITS AND VEGETABLES (Agenda Item 3a)<sup>7</sup>**

12. The Committee revised the draft Standard section by section and agreed on the following amendments:

##### **Section 1 – Scope**

13. The Committee recognized that some of the provisions overlapped with the product definition and agreed to reorganize this Section to bring it into line with the format of Codex commodity standards and the language usually applying to this Section in Codex standards for processed fruits and vegetables.

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<sup>5</sup> ALINORM 06/29/41, paras. 116 - 119 and Appendix X.

<sup>6</sup> CX/PFV 06/23/3, comments from Cuba (CRD 14).

<sup>7</sup> CX/PFV 06/23/4 and comments from Australia, Brazil, Cuba, France and Switzerland (CX/PFV 06/23/4-Add.1); Argentina (CRD 7); European Community (CRD 10) and India (CRD 12).



14. In addition, the Committee agreed to provide for the Latin name of “green mustard” for clarity and to exclude “sauerkraut” as this was a product requiring specific provisions relating to processing and neither trade nor consumer protection issues associated to this product had been identified in international trade. Consequently, the reference to this product was deleted throughout the Standard.

### **Section 2.1 – Product Definition**

15. The Committee made a number of amendments to Section 2.1 due to the reorganization of the Scope and for alignment with the standardized language usually applying across Codex standards for processed fruits and vegetables as follows:

16. **Section 2.1(a)** – The Committee agreed to include “seeds” as it was a basic ingredient in the production of pickled fruits and vegetables. The Committee also agreed to refer to “aromatic” herbs as more appropriate and to apply this decision across Codex standards for processed fruits and vegetables where appropriate.

17. **Sections 2.1(b) & (d)** – The Committee amended these sections to incorporate some of the provisions previously included in the Scope.

18. The Committee also agreed that, in view of the exclusion of “sauerkraut”, the specific provision for a pH range of 2 – 4 was not necessary as the remaining products were adequately covered by a pH of less than 4.6 (Section 2.1d).

19. A Delegation noted that for products having a pH close to 4.6 it might be important to determine the tolerance above/below the breaking value (e.g. 4.58/4.62 to be rounded to 4.6) to differentiate between those products covered by the Standard requiring an additional preservation process e.g. heat treatment such as sterilization, pasteurization, etc., account being taken of the increasing sensitivity of the equipments performing the method of analysis which provided for greater accuracy in the measurement results. The Committee agreed to retain the pH value as proposed and to discuss this matter when considering methods of analysis for processed fruits and vegetables (Agenda Item 6a).

20. **Section 2.1(c)** – The Committee aligned this Section with the standardized language usually applying across Codex standards for processed fruits and vegetables. In addition, the Committee noted that the products covered by the Standard might undergo different treatments to ensure product stability thus a general provision i.e. “processed in appropriate manner” as opposed to references to specific methods would provide for adequate flexibility as per quality, safety and product innovation.

### **Section 2.2 – Styles**

21. The Committee agreed to have a simplified approach by deleting the list of styles and incorporating a general statement to allow for any presentation of the product provided that the style complied with the requirements of the Standard and was properly declared on the label. Section 8.1 (Name of the Product) was therefore amended accordingly.

22. The Committee noted that this decision could horizontally apply to other Codex standards for processed fruits and vegetables and should thus be taken into account when considering provisions for styles vis-à-vis labelling.

### **Section 3.1.1 – Basic Ingredients**

23. The Committee aligned this Section with the standardized language usually applying throughout Codex standards for processed fruits and vegetables.

**Section 3.1.2 – Other Permitted Ingredients**

24. The Committee agreed to:

- remove those provisions relating to packing media (e.g. brine, vinegar, fruit juice, oil, etc.) and basic ingredients (e.g. aromatic herbs);
- enter a separate entry for “soy sauce” and to replace “seasoning” by “sauce” vis-à-vis the Food Category System of the GSFA which assigned different food categories to these products;
- replace the term “unrefined nutritive sweeteners” with “foodstuff with sweetening properties” as recommended by the Committee on Food Labelling<sup>8</sup>;
- allow for other ingredients as appropriate considering the large range of products covered by the Standard.

**Section 3.2 – Quality Criteria**

25. The Committee adjusted the provisions for colour, flavour and texture and agreed that the simplified text could be used as reference in other Codex standards for processed fruits and vegetables.

**Section 3.2.1.2 – Pickled Fruits & Vegetables in Edible Oil**

26. The Committee agreed that a value of 10% was the minimum required to identify a product as pickled fruit and/or vegetable in edible oil while ensuring the keeping quality of the product e.g. oxidation damage. The requirement for the product being submerged in oil was thus deleted.

**Sections 3.2.1.4 & 3.2.1.5 - Definitions and Allowances for Defects**

27. The Committee had an exchange of views on the opportunity to retain these sections in the Standard. Some delegations were of the view that Section 2.1(a) already provided for the quality and safety of the product so that provisions for defects/allowances did not provide any added value in terms of consumer health protection and fair trade practices.

28. Other delegations were of the opinion that this Section provided important guidance for compliance with the Standard vis-à-vis the subsequent provisions on classification of defectives and lot acceptance (i.e. inspection checks). In this connection, these delegations felt that certain qualifiers such as “practically” or “reasonably” should be specified by quantifying figures, e.g. percentages of defects, like in other Codex standards for processed fruits and vegetables. Some other delegations questioned the application of “blemishes” to certain styles such as “chopped” or “shredded”.

29. The Committee reworded provisions for “blemishes” to make it applicable to the product as appropriate by referring to the “overall appearance of the product”. However, it recognized that, due to the broad scope of the Standard, it was not possible to set specific limits for defects. In this regard, the Committee agreed that the tolerances did not apply only to “harmless extraneous material” but to all those defined under Section 3.2.

**Section 3.3 – Classification of Defectives**

30. The Committee aligned this Section with the format and language usually applying in Codex standards for processed fruits and vegetables by splitting it into two sections on “Classification of Defectives” and “Lot Acceptance”.

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<sup>8</sup> ALINORM 05/28/22, paras. 6 – 9.

**Section 4 – Food Additives**

31. The Committee agreed to incorporate the list of food additives as recommended by the Working Group on Food Additives.

**Section 6 – Hygiene**

32. The Committee agreed to introduce an allowance for compliance with the microbiological criteria in the case of sterile products such as those covered by the Standard by inserting a footnote to Section 6.2 as recommended by the Committee on Food Hygiene<sup>9</sup>.

**Section 7 – Weights and Measures****Minimum Fill**

33. The Committee had an exchange of views on compliance with the 90% container capacity for certain small glass containers (less than 200 ml with the width greater than the height) and agreed that allowances for minimum fill should be set in accordance with good manufacturing practices which would account for other types of containers having similar limitation e.g. flexible containers. Consequently, the provisions for “flexible containers” and “90% of container capacity” were deleted from sections 7.1.1 and 7.1.2 respectively.

34. The Committee noted that this decision could horizontally apply to other Codex standards for processed fruits and vegetables and should thus be taken into account when considering provisions for minimum fill.

**Minimum Drained Weight**

35. The Committee agreed that exceptions for red cabbage applied to the “pieces style” and “other styles” and rearranged the indents in Section 7.1.4.1 accordingly.

36. In addition, a complementary provision relating to deviation from the net weight based on compliance of the average drained weight with minimum drained weight was included as applicable to the products covered by the Standard and for consistency with other Codex standards for processed fruits and vegetables.

**Section 9 – Methods of Analysis and Sampling**

37. The Committee agreed to incorporate the list of methods of analysis as recommended by the Working Group on Methods of Analysis and Sampling.

**Status of the draft Codex Standard for Pickled Fruits and Vegetables**

38. The Committee agreed to forward the Standard to the Commission for adoption at Step 8 (Appendix II).

**DRAFT CODEX STANDARD FOR PROCESSED TOMATO CONCENTRATES (Agenda Item 3b)<sup>10</sup>**

39. The Committee revised the draft Standard section by section and, in addition to editorial and consequential changes, agreed on the following amendments:

**Section 1 - Scope**

40. The Committee agreed to amend the Scope to clarify that products that contained skins and seeds such as “pizza toppings” and “home-style” products were excluded from this Section.

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<sup>9</sup> ALINORM 05/28/13, paras. 175 – 176.

<sup>10</sup> ALINORM 05/28/27, comments from Australia, Brazil, Cuba, European Community, Malaysia, Panama, Thailand, United States, Uruguay, Venezuela, and the World Processing Tomato Council (CX/PFV06/23/5).

**Section 2.1 - Product Definition**

41. The Committee replaced “natural tomato soluble solids” with “natural total soluble solids” and agreed to apply this throughout the text and to the Standard for Preserved Tomatoes, where applicable. It also agreed to a tomato concentration of 7% natural total soluble solids.

**Sections 2.2 - Product Designation**

42. The Committee had an exchange of views on the designations for tomato puree and tomato paste. Some delegations were of the opinion that the provisions were overly restrictive and could impede product innovation and proposed that the level for natural total soluble solids for tomato paste be no less than 20% or to delete the value and to refer to national legislation. Several other delegations supported retention of these provisions and noted that the levels proposed for tomato paste and puree, respectively, were in the current Codex Standard and had not previously impeded trade and reflected general production practices. The Committee thus agreed to retain the product designations for tomato puree and tomato paste, respectively.

43. In addition, “Aromatic plants” was replaced by “aromatic herbs” in line with an earlier decision.

**Section 3.1.2 – Other Permitted Ingredients**

44. The Committee did not agree to a proposal to include sugar to the list with a footnote on the measurement of concentration without sugars, on the understanding that the addition of sugar would affect the quality of the product by altering the soluble solids content which in turn would create difficulties in relation to the measurement of soluble solids. The delegation of the European Community further drew the attention of the Committee to the *WHO Global Strategy on Diet, Physical Activity and Health* and noted that the undue addition of sugars was in conflict with the recommendations of this Strategy.

**Section 3.2.2.1 - Mineral Impurities**

45. The footnote clarifying which impurities were being referred to was correctly placed within this Section.

**Section 3.2.2.3 - Mould Count**

46. A Delegation was of the opinion that this Section was not necessary in the Standard, since it was not a public health issue and proposed its deletion. Several delegations were of the opinion that this Section was essential to the Standard to avoid the use of raw material of poor quality and others proposed to set a maximum level for mould counts. The Committee recalled its earlier decision to allow for mould counts to be set according to national legislation of importing countries due to the difficulty to compromise on a value since tolerances for mould counts varied considerably amongst national legislations. In view of this, it agreed to retain the text as proposed.

**Section 3.2.2.3 - pH**

47. The Committee agreed to retain the pH value as proposed.

**Section 4 – Food Additives**

48. The Committee agreed to incorporate the list of food additives as recommended by the Working Group on Food Additives.

**Section 5 - Contaminants**

49. Sections 5.1.2 and 5.2.2 were amended to clarify what needed to be taken into account when considering concentration factors for maximum pesticide residue limits and maximum contaminant levels. The Committee agreed to apply this decision across Codex standards for processed fruits and vegetables where appropriate.

**Section 7 - Weights and Measures**

50. The Committee agreed to align this Section in accordance with a previous decision taken in this regard with the exception of provisions for minimum drained weight as not applicable to processed tomato concentrates.

**Section 8.1 - Name of Product (labelling)**

51. An additional provision, Section 8.1 (d), was inserted to allow for labelling of specific ingredients that may affect the characteristic flavour of the product in order not to mislead the consumer in line with the language applying in other Codex standards for processed fruits and vegetables.

**Section 9 – Methods of Analysis and Sampling**

52. The Committee agreed to incorporate the list of methods of analysis as recommended by the Working Group on Methods of Analysis and Sampling.

53. The Committee noted Australia's reservation about the prescriptive quality parameters in the Standard as the country considered these to be unnecessary and potentially trade restrictive. The delegation of Cuba also expressed its reservation in this regard.

**Status of the draft Codex Standard for Processed Tomato Concentrates**

54. The Committee agreed to forward the Standard to the Commission for adoption at Step 8 (Appendix III).

**DRAFT CODEX STANDARD FOR PRESERVED TOMATOES (Agenda Item 3c)<sup>11</sup>**

55. The Committee revised the draft Standard section by section and, in addition to editorial and consequential changes, agreed on the following amendments:

**Section 2.1 - Product Definition**

56. The Committee agreed to amend Section 2.1 (a) to reflect that the raw material for preserved tomatoes needed to be fresh. In addition, provision was made for the use of cored as well as uncored tomatoes, to make allowances for different production practices and to insert this in Section 2.1 (a) as more appropriate.

**Section 2.3.3 - Other Styles**

57. This Section was aligned with the standardized language used in other Codex standards for processed fruits and vegetables.

**Section 3.1.2 - Packing Media**

58. The description for juice as a packing medium was amendment to reflect that juice used in the production of preserved tomatoes could also be obtained from tomato concentrates.

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<sup>11</sup> ALINORM 05/28/27 Appendix III, comments from Australia, Brazil, Cuba, European Community, Malaysia, Panama, Thailand, United States, Uruguay, Venezuela, and the World Processing Tomato Council (CX/PFV06/23/6).

**Section 3.1.3 - Optional Ingredients**

59. “Aromatic plants” was replaced by “aromatic herbs” in line with an earlier decision. A proposal to exclude sugars from the list was not accepted, neither a proposal to open the list to other ingredients. It was emphasized that the purpose of sugars was to neutralize the acidity of added acidulants and therefore its retention in the list of optional ingredients was necessary. A Delegation indicated that sugars were also necessary to neutralize the acidity of certain high-acid tomato varieties. However, the Committee agreed to retain the proposed text with an amendment to refer to sugars and not to list the various sugars as reference was being made to the Standard for Sugars. The Committee noted the reservation of the delegation of the European Community to this decision which would not be in line with the *WHO Global Strategy on Diet, Physical Activity and Health*.

**Section 3.2.2.1 - Whole or Almost Whole**

60. The Committee agreed to refer to “substantial loss of shape” rather than to “material loss of placenta” for better clarity.

**Section 3.2.2 - Size or Wholeness**

61. This Section was amended to make provision for small cans to have allowances for 70% m/m of drained tomatoes.

**Section 3.2.2.3 - Mould Count**

62. The Committee agreed to the text as proposed in accordance with its earlier decision (para. 46).

**Section 3.2.2.3 - pH**

63. The Committee amended this Section to indicate that the pH must not exceed 4.5.

**Section 3.2.5 - Lot Acceptance**

64. This Section was aligned with the standardized language applying to other Codex standards for processed fruits and vegetables.

**Section 4 – Food Additives**

65. The Committee agreed to incorporate the list of food additives as recommended by the Working Group on Food Additives.

**Section 5 - Contaminants**

66. Sections 5.1.2 and 5.2.2 were aligned in accordance with a decision taken in this regard at its present session.

**Section 6 – Food Hygiene**

67. The Committee agreed to introduce an allowance for compliance with the microbiological criteria in the case of sterile products such as those covered by the Standard by inserting a footnote to Section 6.2 as recommended by the Committee on Food Hygiene.

**Section 7 - Weights and Measures**

68. The Committee agreed to align this Section in accordance with a decision taken in this regard where appropriate.

69. In particular, it was agreed to retain the drained weight as proposed in Section 7.1.4.1 and align the provision with the standardized text for Codex standards for processed fruits and vegetables. After an exchange of views on the adequacy of the provision as proposed in 7.1.4.2, the Committee agreed with the proposed wording with the understanding that future work on the development of sampling plans for the control of minimum drained weight would be considered since the current proposal was too subjective.

**Section 8.1 – Name of the Product (Labelling)**

70. Sections 8.1.3 and 8.1.4 were aligned in accordance with a decision taken in relation to addition of ingredients and other styles.

**Section 9 – Methods of Analysis and Sampling**

71. The Committee agreed to incorporate the list of methods of analysis as recommended by the Working Group on Methods of Analysis and Sampling.

72. The Committee noted Australia's reservation about the prescriptive quality parameters in the Standard as the country considered these to be unnecessary and potentially trade restrictive.

**Status of the draft Codex Standard for Preserved Tomatoes**

73. The Committee agreed to forward the Standard to the Commission for adoption at Step 8 (Appendix IV).

**DRAFT CODEX STANDARD FOR CERTAIN CANNED CITRUS FRUITS (Agenda Item 3d)<sup>12</sup>**

74. The delegation of the United States, as lead country of the Working Group on Certain Canned Citrus Fruits, informed the Committee on the outcome of the discussion of the Working Group that met prior to and during the Plenary Session.

75. The Committee noted that the basis for the deliberation of the Working Group was Appendix IV to ALINORM 05/28/27 and the comments submitted in response to this document. In addition to editorial and consequential changes, the Committee made the following observations, amendments and agreements:

**Section 2.1 – Product Definition**

76. This Section was reorganized to match the Latin names of the fruits with their common names. In addition, the reference to “nutritive sweeteners” and “other nutritive sweeteners” was removed as covered by the term “sugars” and “honey” as defined in the corresponding Codex standards for these products.

**Section 2.2 – Colour Types**

77. This Section was retained as considered relevant for labelling purposes. The “pale yellow” colour type was kept as a single type as oppose to a colour range to define the exact colour of the fruit under this category and for consistency with the other colour types referring to a single colour.

**Section 2.3 – Styles**

78. This Section was simplified by grouping the canned citrus fruits covered by the Standard into a single table to better visualize the different styles applicable.

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<sup>12</sup> ALINORM 05/28/27-App.IV and comments from Australia, Brazil, European Community, Malaysia, Panama, Thailand and United States (CX/PFV 06/23/7), Report of the Working Group on Certain Canned Citrus Fruits (CRDs 2 and 18), Report of the Working Group on Methods of Analysis and Sampling for Processed Fruits and Vegetables (CRD 5) and Report of the Working Group on Food Additives (CRD 17).

79. The Committee held a discussion on the need to differentiate between “broken” and “pieces” for canned mandarin oranges due to the small size of the fruit which did not justify such a distinction. Some delegations noted that the separation into these two styles would place unnecessary burden on the industry without giving any added value to the consumer in terms of fair trade practices and proposed to merge the two forms of presentation into one single “broken” style. These delegations supported the retention of the “whole” style and the inclusion of an additional “twin” style to reflect current marketing practices. Other delegations noted that it would be necessary to keep the two styles separate to account for other existing industry practices and that the merging of both styles might result in lowering the quality of the product.

80. Based on the above discussion, the Committee agreed to combine both “broken” and “pieces” styles into a single category “broken”.

### **Section 3.1.2 – Packing Media**

81. The Committee concurred with the recommendation of the Working Group to simplify this Section by referring to the *Guidelines on Packing Media for Canned Fruits* as specific provisions on packing media for the products covered by the Standard found accommodation into the different ranges of Brix levels established for the various packing media addressed in the Guidelines.

### **Section 3.2.4 – Wholeness (quality criteria)**

82. The Committee agreed that this provision applied only to “whole” styles for the products covered by the Standard.

### **Sections 3.2.6 – Defects and Allowances; 3.2.7 – Classification of “Defectives”; 3.2.8 – Lot Acceptance and 7.1.4 – Minimum Drained Weight**

83. The Committee had an exchange of views on the above provisions vis-à-vis the changes introduced in the style section. The Committee agreed to remove the reference on tolerances for “pieces” style in canned mandarin oranges for consistency with its previous decision in this regard (see paras. 78-80). In addition, the Committee noted that, for canned mandarin oranges, certain defects and allowances applied only on a sample average basis. In addition, the minimum drained weight was amended to allocate 40% to canned pummelo for “whole” styles and 56% to all styles of canned mandarin oranges as more appropriate.

### **Section 4 – Food Additives**

84. The Committee agreed to incorporate the list of food additives as recommended by the Working Group on Food Additives.

### **Section 6 – Hygiene**

85. The Committee entered a footnote for an exception from provisions in Section 6.2 relating to compliance with microbiological criteria established in the Principles for the Establishment and Application of Microbiological Criteria for Foods as recommended by the Committee on Food Hygiene for products which were rendered commercially sterile in accordance with the Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods.

### **Section 7 – Weights and Measures**

86. The Committee aligned this Section in accordance with a previous decision in this regard where appropriate.



### **Section 8 – Food Labelling**

87. This Section was simplified in view of the changes made to the style and packing media sections. It was agreed to retain only “oranges” for sweet oranges in the labeling and to align the Sections relating to the addition of ingredients and other styles with the standardized text agreed in this regard.

### **Section 9 – Methods of Analysis and Sampling**

88. The Committee agreed to incorporate the list of methods of analysis as recommended by the Working Group on Methods of Analysis and Sampling.

### **Status of the draft Codex Standard for Certain Canned Citrus Fruits**

89. The Committee agreed to forward the Standard to the Commission for adoption at Step 8 (Appendix V).

## **PROPOSED DRAFT CODEX STANDARDS AT STEP 4**

### **PROPOSED DRAFT STANDARD FOR CERTAIN CANNED VEGETABLES (including provisions for packing media) (Agenda Item 4a)<sup>13</sup>**

90. The delegation of France, as lead country for the Working Group on Certain Canned Vegetables, informed the Committee on the outcome of the discussion of the Working Group that met prior to the session. The Committee noted that the basis for deliberation of the Working Group was working document CX/PFV 06/23/8 and the comments submitted in response to this document.

91. The Committee was informed that in view of the complexity of the Standard and the need for its simplification, the Working Group had proposed that generic provisions applying to all canned vegetables covered in the Scope be dealt with in the body of the Standard while leaving the vegetable-specific provisions in separate annexes to the Standard. It was noted that this approach would allow for progress of the body and the annexes at different stages in the Step Procedure and that this was the practice with other Codex standards.

92. The Committee agreed to first review the body of the Standard followed by its annexes as presented in CRD 3. In addition to editorial and consequential changes, the Committee made the following observations, amendments and agreements:

#### **Section 1 - Scope**

93. The Committee agreed to insert a reference to the corresponding annexes in accordance with the new approach for the Standard in order to indicate that the products covered in this Section also applied to those defined in the annexes and to apply this amendment throughout the text, as appropriate.

#### **Section 2 - Description**

94. The Committee was informed of a proposal to include canned vegetables as a raw material for canned vegetable products in Section 2.1 (1). It was agreed that this practice was not common to canned vegetables and applied more specifically to the production of canned corn and that the specific inclusion of canned baby corn would be dealt with in the Annex on Baby Corn and/or Young Corn.

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<sup>13</sup> CX/PFV 06/23/8, CX/PFV 06/23/8 – Add.1; comments from Australia, Brazil, Costa Rica, Ecuador, France, Malaysia and the United States (CX/PFV 06/23/8-Add.2); comments from Brazil and Cuba (CX/PFV 06/23/8-Add.3); Report of the Working Group for Certain Canned Vegetables (CRD 3); Report of the Working Group for Methods of Analysis and Sampling (CRD 5); proposal from Costa Rica (CRD 15) and Report of the Working Group on Food Additives (CRD 17).

95. It was clarified that the use of the phrase “in an appropriate manner” was standardized term in Codex standards for processed fruits and vegetables and the Committee therefore did not accept a proposal to substitute this with “good manufacturing practices” in Section 2.1.3. The Committee noted that changes affecting horizontally to Codex standards for processed fruits and vegetables might be taken up in the Layout.

### **Section 3.1.3 - Other Permitted Ingredients**

96. The Committee agreed with the proposal for a general statement making reference to the corresponding annexes and to the deletion of the list of ingredients as these would be covered by the Guidelines on Packing Media for Canned Vegetables currently under development or were specific<sup>14</sup> to a particular canned vegetable and would be provided for in the appropriate annexes.

### **Section 3.5 - Other styles**

97. The Committee recognized that styles should form part of the product definition in line with the layout for other similar Codex standards for processed fruits and vegetables. This Section was thus moved to Section 2 and reference was made to other styles as permitted in the corresponding annexes.

### **Section 4 – Food Additives**

98. The Committee agreed to incorporate the list of food additives as recommended by the Working Group on Food Additives.

### **Section 6 - Hygiene**

99. The Committee inserted a footnote for an exception from provisions in Section 6.2 relating to compliance with microbiological criteria established in the Principles for the Establishment and Application of Microbiological Criteria for Foods as recommended by the Committee on Food Hygiene and agreed to the deletion of Sections 6.3 to 6.5 as these provisions were provided for in the Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods referenced in preceding sections on food hygiene.

### **Section 7 - Weights and Measures**

100. This Section was aligned in accordance with a decision taken in this regard where appropriate.

101. A Delegation questioned the link between “lot acceptance” in Section 7.2 with provisions for minimum fill and minimum drained weight and emphasized that the approach taken was not normal practice in Codex standards for processed fruits and vegetables and proposed its deletion. However, another Delegation was of the opinion that this Section needed to be retained in view of the proposal to develop sampling plans (see para 148). The Committee therefore agreed to retain Section 7.2 in square brackets for further consideration at its next session.

### **Section 8 - Labelling**

102. The Committee agreed with the proposal to place all labelling specifications that were product specific in the appropriate annexes and to amend the Section on Other Styles (Section 8.1.6) to indicate that the presentation style should be indicated in such a way to avoid misleading the consumer and to apply this text to the other standards under consideration, where appropriate. The Section relating to the addition of ingredients (Section 8.1.7) was aligned with the standardized text usually applying to Codex standard for processed fruits and vegetables and the Committee agreed to apply this text to the other standards under consideration, where appropriate.

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<sup>14</sup> ALINORM 05/28/27, paras. 14 – 15.

**Section 9 – Methods of Analysis and Sampling**

103. The Committee agreed to incorporate the list of methods of analysis and sampling as recommended by the Working Group on Methods of Analysis and Sampling.

**Annexes**

104. The Committee had a discussion on how to proceed with the consideration of the various annexes to the Standard.

**Palms**

105. The delegation of Costa Rica supported by several other delegations proposed that priority should be given to the Annex on Palms (Annex V) and informed the Committee of the difficulties with the current proposed text especially with regard to the product definition which implied that palm hearts could only be obtained from wild palm. It was emphasized that there was no scientific justification to differentiate between wild and cultivated palms. The delegation of Costa Rica further introduced a proposal for the Annex on Palms as presented in CRD 15 which some delegations considered a good basis for further discussion on this issue.

106. However, due to the highly technical nature of the product, the Committee agreed not to further consider the Annex on Palms at its present session.

**Green Peas**

107. Due to the limited technical provisions for green peas, the Committee decided to consider the Annex on Green Peas next (Annex IV).

**Section 1.2 - Styles**

108. The Committee had considerable exchange of views on provisions for styles. Several delegations were of the opinion that this Section would be more appropriately titled “sizing” since the Section referred to pea sizes. It was however indicated that in the case of these products, style was dependant on size.

109. In addition, as to the question of the difference between “sweet” and “green” peas, it was noted that “sweet green peas” were usually bigger than “green peas”, that it would be more appropriate to refer in the description of the sizing to “not screened” rather than “not sized” and that the footnote referencing was appropriately termed “sweet garden peas” as these were widely marketed as such.

110. Some delegations were of the opinion that the table could be simplified as the figures for the various categories of green peas and sweet peas were similar. Other delegations however raised their concern with the values represented in the table and indicated that it may not reflect the wide range of practices, that having single values could be restrictive and that the Section might need to be subject to national legislation.

111. In view of the wide range of views on this Section and the number of other annexes that still needed to be dealt with, the Committee agreed to discontinue discussion on the annexes, to append the annexes to the Report of the Session for comments at Step 3 and to re-establish the electronic Working Group on Canned Vegetables<sup>15</sup> to revise the annexes taking into consideration the discussion at this session together with comments at Step 3 for consideration at the next session of the Committee.

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<sup>15</sup> Working Group led by France with the assistance of with the assistance of Brazil, Canada, Costa Rica, Cuba, Ecuador, European Community, Italy, Malaysia, Morocco, Spain, Switzerland, United Kingdom, United States and Thailand.

**Proposed draft Codex Guidelines on Packing Media for Canned Vegetables**

112. Due to time constraints, the Committee did not discuss the proposed draft Codex Guidelines on Packing Media for Canned Vegetables and agreed to append the Guidelines to the Report of the Session for comments at Step 3 and revision by the Working Group on Canned Vegetables for consideration at the next session.

**Timeframe**

113. The Committee proposed to complete the work on the body of the Standard for Certain Canned Vegetables by 2008 and the annexes to the Standard as well as the Codex Guidelines on Packing Media for Canned Vegetables by 2010.

**Status of the proposed draft Codex Standard for Certain Canned Vegetables and Guidelines on Packing Media for Canned Vegetables**

114. The Committee agreed to forward the body of the Standard to Step 5 for adoption by the Commission and to return the Annexes (Appendix VII) and the Guidelines for Packing Media for Canned Vegetables (Appendix VIII) to Step 3 for comments, revision by the Working Group and further consideration by the next session of the Committee.

**PROPOSED DRAFT CODEX STANDARD FOR JAMS, JELLIES AND MARMALADES (Agenda Item 4b)<sup>16</sup>**

115. The delegation of the United Kingdom, as lead country of the Working Group on Jams, Jellies and Marmalades, informed the Committee on the outcome of the discussion of the Working Group that met prior to the Plenary Session as presented in CRD 4.

116. The Committee noted that the basis for the deliberation of the Working Group was working document CX/PFV 06/23/9 and the comments submitted in response to this document. In addition to editorial and consequential changes, the Committee made the following observations, amendments and agreements:

**Section 1 – Scope**

117. The Scope was adjusted to better reflect that the Standard did not cover jams, jellies and marmalades intended for diabetic or dietetic uses by inserting the words “special dietary uses” which was common terminology to indicate these products in Codex. The reference to “non-carbohydrate sweeteners” was deleted as redundant and already defined in the product definition. The reference to “bakery jam” was also deleted as was not a common term for all countries.

118. The English term “preserve” and “conserve” were retained as such in the French and Spanish versions as they were specific optional terms for jams customarily used in various English-speaking countries.

**Section 2 – Product Definition**

119. The Committee agreed to replace sugars with “foodstuff with sweetening properties” to refer to non-food additive sweeteners other than those covered in the Codex standards for sugars and honey across the Standard.

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<sup>16</sup> CX/PFV 06/23/9 and comments from Australia, Brazil, Cuba, Switzerland and United States (CX/PFV 06/23/9-Add.1), Report of the Working Group on Jams, Jellies and Marmalades (CRD 4), Report of the Working Group on Methods of Analysis and Sampling for Processed Fruits and Vegetables (CRD 5) and Report of the Working Group on Food Additives (CRD 17).

**Jams**

120. The Committee noted that separate definitions for “Jam” and “Extra”/“High Fruit” Jam might create confusion as per establishing different categories of the same product since the definition should apply horizontally to the different product types and the specifics in terms of composition, designation, etc. should be addressed under the appropriate sections of the Standard e.g. composition, labelling, etc.

121. A single definition for jam without differentiating between “Extra” and/or “High Fruit” jams was thus set and the alternative designations for this product addressed in the labelling section as recommended by the Working Group. As a result, all the provisions for “Extra”/High Fruit” jam were removed from this Section.

122. In addition, the Committee removed the square brackets around the terms “un-concentrated and/or concentrated” to allow both types of pulp and puree to be used in the elaboration of jams. The Committee also agreed to delete the term “gelled” as this might create confusion with other products defined by the Standard i.e. jellies, and to apply this decision across the document as appropriate. In addition, the Committee noted a comment on the need to incorporate some language in relation to the elaboration process e.g. “prepared from boiling...” in the definition of the products. However, the Committee agreed that “brought to a suitable consistency” already covered the process involved in the production of the products covered by the Standard.

**Jellies**

123. This Section was amended to adjust it to the decision taken in relation to the product definition being as overarching as possible while addressing the specifics into the relevant sections of the Standard.

124. The Committee also noted that acids or acidulants were important in the gelification process of the elaboration of both jellies and marmalades but that this provision was adequately covered in the food additive provisions and was not necessary to retain it under the product definition.

**Marmalades – Citrus and Non-citrus Marmalades**

125. The Committee noted that the term “marmalade” could also apply to fruits other than citrus fruits e.g. various tropical fruits and agreed with the recommendation of the Working Group to set two separate entries for marmalades made from citrus and non-citrus fruits.

126. The Committee noted that non-citrus marmalade had a fruit content and sugar concentration that was not covered by the definition of jams and might differ from those established for citrus marmalade considering the different types of fruits that were available for the elaboration of this particular product.

**Citrus Marmalade**

127. The Committee noted that different manufacturing practices worldwide should provide for the optional addition of peels in the production of citrus marmalade. In addition, the term “aqueous extract” was removed as not applicable to citrus fruits. However, the Committee noted that this term might apply to other fruits e.g. pulpy whole fruit whose juice/pulp could not be extracted by physical means (e.g. squeezing) like in the case of citrus fruits.

**Jelly Marmalade**

128. The Committee had an exchange of views on whether this product applied only to those obtained from citrus marmalade. The Committee was unable to identify other fruits that could be used in the elaboration of this product. Some delegations informed that this type of product applied to home-made products but it was not produced commercially. The Committee therefore agreed to restrict the definition of jelly marmalade to those made from citrus marmalades only.

## **Section 2.2 – Other Definitions**

### ***Fruit***

129. The Committee reorganized this Section for better clarity.

130. The Committee agreed to retain the list of raw material as proposed by the Working Group and considered “frozen” as a fresh-type fruit. Some delegations felt that freezing already implied a type of processing so frozen fruits should be considered as a type-processed/preserved fruit. Other delegations felt that frozen fruits still retained the characteristics proper to fresh fruit as opposed to other processing methods such as canning, concentration, etc. It therefore agreed to remove the square brackets around “frozen” to allow this type of fruit being used as a raw material in the development of the products covered by the Standard.

131. Some delegations noted that a number of provisions e.g. sound, clean, etc. might be more related to quality parameters (Section 3.2 – Quality Criteria) and should be not be part of the product definition. The Committee noted that these qualifiers usually applied to this Section in Codex standards for processed fruits and vegetables and agreed to retain the definition as proposed by the Working Group as different approaches in this regard might create confusion to users of the standards.

### ***Fruit Pulp***

132. The Committee agreed with the proposal of the Working Group to refer to “fleshy” in addition to the edible part of the fruit.

### ***Foodstuff with sweetening properties***

133. The Committee removed the square brackets around “fructose syrup” and “brown sugar” and listed them separately as these not were covered by the Standard for Sugars. It was noted that only fructose (dehydrated) and “soft brown sugar” were defined in the aforesaid Standard while “brown sugar” was a broader category.

## **Section 3.1.2 – Fruit Content (basic ingredients)**

### ***Jams and Jellies***

134. The Committee agreed with the proposal of the Working Group to follow the same approach as in the Standard for Jams (Fruit Preserves) and Jellies in force and to split the Section into two sub-sections to address different manufacturing practices linked to the various product designations indicated in the labelling while allowing for flexibility in the application of the product designations when applying the fruit content formulations by not referring to the specific product designation in the two sub-sections but to the labelling section. A general statement referring this Section to the Labelling Section was added in this regard.

135. The Committee considered a proposal to refer the quantity of fruit ingredients used in the finished product to “good manufacturing practices” to allow for product variability and innovation considering other fruits and vegetables not specifically mentioned that were also covered by the scope of the Standard. The Committee noted that the provisions in Section 3.1.2 (a) and (c) provide for enough flexibility as per provisions applying across fruits and vegetables suitable for making jams, jellies and marmalades and that exceptions to those provisions were adequately addressed in the foregoing list of fruits/vegetables under each sub-section.

136. The Committee noted a provision on the addition of grape juice and grape juice concentrate to labrusca grape jam by which the fruit content might account for both the juice and the fruit. It was noted that this provision was covered by the Standard in force. The Committee agreed to bracket this provision for further consideration at its next session.

***Citrus Marmalade***

137. The Committee noted that the proposed minimum levels for fruit content and endocarp reflected more traditional practices in the elaboration of this product and did not account for the range of new citrus marmalades that were increasingly available which, due to the nature of the fruit, could not meet the levels proposed in the Standard e.g. lime marmalades.

138. The Committee agreed to lift the square brackets around the percentages of citrus fruit ingredient while specifying that these percentages applied when the product was predominantly made from certain citrus fruits e.g. oranges.

139. The Committee also agreed to refer to a footnote the definition of endocarp for citrus fruits.

***Non-citrus Marmalade***

140. The Committee noted that due to the wide range of fruits and vegetables used for the production of non-citrus marmalades the range for fruit content proposed in the Standard might be unnecessarily restrictive as due to this diversity some of them could be above and/or below the proposed range.

141. The Committee therefore agreed to refer to a minimum level to keep a differentiation from the other products defined in the Standard while agreeing that a similar non-exhaustive exception list as developed for jams and jellies could also be applicable for non-citrus marmalade and that this can be further considered by the Committee if necessary. It was noted a minimum level as opposed to range was also in line with similar provisions for the other products covered by the Standard.

**Conclusion**

142. Due to time constraints, the Committee discontinued the consideration of the Standard at this session. However, in recognition of the progress made by the Working Group in revising the Standard since the last session of the Committee and based on the discussions and agreements reached at the present session, the Committee agreed to leave the remaining text unchanged and to discuss it further at its next session while advancing the Standard to the Commission for preliminary adoption at Step 5.

143. In taking this decision, the Committee also agreed to align the Section on Contaminants with the standardized text and the sections on food hygiene and weights and measures with the decisions taken in this regard at the present session.

144. The Committee also agreed to incorporate the list of additives and methods of analysis into the relevant sections of the Standard as recommended by the working groups on food additives and methods of analysis for further consideration at its next session.

**Timeframe**

145. The Committee proposed to complete the work on the Standard at its next session in 2008.

**Status of the proposed draft Codex Standard for Jams, Jellies and Marmalades**

146. The Committee agreed to forward the Standard to the Commission for adoption at Step 5 (Appendix VI).

**PROPOSALS FOR AMENDMENTS TO THE PRIORITY LIST FOR THE STANDARDIZATION OF PROCESSED FRUITS AND VEGETABLES (Agenda Item 5)<sup>17</sup>**

147. The Committee considered proposals for addition to the Priority List from France and the International Olive Oil Council.

148. In view of the heavy workload of the Committee, it decided to retain Table Olives on the Priority List and agreed to submit the Proposal for the Development of a Sampling Plan Including Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables as new work for review by the Executive Committee and approval by the Codex Alimentarius Commission (Appendix X).

149. In view of the above, the Committee left the Priority List unchanged and appended it to this Report for comments and continued consideration at future sessions (Appendix XI).

**OTHER BUSINESS****METHODS OF ANALYSIS AND SAMPLING FOR PROCESSED FRUITS AND VEGETABLES (Agenda Item 6a)<sup>18</sup>**

150. The delegation of the United States of America introduced CRD 5 containing the recommendations of the Working Group on Methods of Analysis and Sampling in regard to those methods of analysis and sampling listed in CX/PFV 06/23/11, Appendices I and II.

151. Due to time constraints, the Committee only considered those methods of analysis and sampling for the Standards proposed for advancement to Step 8 (the standards for pickled fruits and vegetables, processed tomatoes concentrates, preserved tomatoes and canned citrus fruits) and agreed to the following:

152. Those methods of analysis relating to the Standards for pickled fruits and vegetables, processed tomato concentrates, preserved tomatoes and canned citrus fruits would be sent to the Committee on Methods of Analysis and Sampling for endorsement (Appendices II, III, IV and V) together with clarifications provided by the Working Group. It included in this list, an additional method (ISO UNIUN SERIES 2331) for minimum drained weight specific for crushed tomatoes as proposed, since the method endorsed by CCMAS was not applicable to this style of processed tomatoes.

153. Those methods of analysis, including Codex Recommended Methods (CAC/RMs) and sampling plans identified by the Working Group for the commodity standards under discussion and at Step 3 or 5 of the process would be inserted into the relevant Standards and circulated for comments and further consideration by the next session of the Committee.

154. In addition, the Committee recalled its earlier decision to refer to Sampling Plan 1 and 2 of the revoked Codex Sampling Plan for Prepackaged Foods (CODEX STAN 233-1969)<sup>19</sup> and to attach these as an Annex to relevant standards on processed fruits and vegetables. It further agreed with the proposal of the Working Group to stipulate when to use Inspection Level 1 (normal sampling) or 2 (disputes) by adding an introductory text to the Annex.

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<sup>17</sup> CX/PFV 06/23/10; Project Proposal for the Development of a Sampling Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables prepared by France (CRD 16).

<sup>18</sup> ALINORM 05/28/27, Appendix VIII: Part II, CX/PFV 06/23/12; Report of the Working Group on Methods of Analysis and Sampling (CRD 5) and comments from IOOC (CRD 8).

<sup>19</sup> ALINORM 05/28/27, para 102.



155. However, an exchange of views took place with regard to the appropriateness of the sampling plans with respect to the inspection level with an AQL of 6.5 and it was emphasized that this was not achievable in practice especially for quantity provisions. The delegation of France indicated that for quantitative inspection the OIML<sup>20</sup> Recommendation 87 as well as the EC Guidelines 76/211 referred to an AQL = 2.5. Several delegations therefore proposed the deletion of these sampling plans. Other delegations were of the opinion that the sampling plans needed to be retained as these had been reference plans for a period of time and in recognition that there was an attempt to improve on these sampling plans. In view of the discussion, it was agreed that the sampling plans would not be included in those standards being advanced to Step 8, but would be retained in those Standards at Step 3 or Step 5 for comments and further consideration by the next session of the Committee.

156. The Committee also agreed to request comments on the methods of analysis for aqueous coconut products, coconut cream and coconut milk for consideration at its next session (Appendix XII).

#### **FOOD ADDITIVE PROVISIONS IN CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES (Agenda Item 6b)**

157. The delegation of the United States of America introduced CRD 17 containing the recommendations of the Working Group on Food Additives in regard to those additive provisions for the various processed fruit and vegetable standards under consideration by the Committee.

158. The Committee noted that the document basically differentiated between those additive provisions recommended for inclusion in the corresponding standards and those requiring further discussion by the Committee.

159. The Committee focused its discussion on those food additive provisions for inclusion in the standards proposed for advancement to Step 8 (the standards for pickled fruits and vegetables, processed tomato concentrates, preserved tomatoes and canned citrus fruits) and had an exchange of views on the appropriateness to incorporate in the proposed list of food additives some of those additives that were included in a separate table for further comments and consideration by the next session of the Committee.

#### **General Considerations**

160. Some delegations supported the inclusion of a general statement referring to those additive provisions of the GSFA for the food category corresponding to the commodity standard by inserting the following statement: “*The list of food additives included in this Standard does not preclude the use of food additives in the functional classes identified in the Standard and approved under the General Standard for Food Additives in Table 3 and/or for the appropriate food category in Tables 1 and 2*” to allow for flexibility in the additive provisions in the commodity standards and in recognition of the GSFA as the ultimate reference point for food additive provisions in Codex standards.

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<sup>20</sup> International Organization of Legal Metrology (*Organisation Internationale de Métrologie Légale/Organización Internacional de Metrología Legal*).

161. Other delegations recognized that the GSFA would in future be the single reference for food additives in Codex, but that, the GSFA was not yet completed and the procedure<sup>21</sup> was still in place for commodity committees to develop lists of additives for their standards based on technological need for endorsement by the Committee on Food Additives and inclusion into the GSFA while CCFA being responsible for assessing food additives from a safety perspective. These delegations noted that it should be the horizontal committees i.e. CCFA in the case of food additives who should give guidance on how to approach general provisions in Codex standards and not the contrary. They also noted that, due to the hierarchical organization of the food category system of the GSFA, more additives than those allowed for in a particular food category might be allowed vis-à-vis the broader category they were part of. In addition, the descriptor of the food category where a commodity standard might fall was in most cases broader than the one defined in the scope of the commodity standard allowing for more additives than those permitted in the commodity standard. These delegations underlined that the CCFA had not yet concluded discussion on the relation between food additive provisions in commodity standards and the GSFA and therefore, it would be advisable to adhere the procedure as set out in the Procedural Manual during the current transition period.

162. The Committee could not come to an agreement on the approach that should be taken in addition to the listing of food additives in the Standard and thus, it agreed to proceed considering the additive provisions in the standards under study.

### **Specific Considerations**

#### ***Pickled Fruits and Vegetables***

163. The Committee noted that INS 334, 335(i)/(ii), 336 (i)/(ii) and 336 for tartrates (acidity regulator) at 1500 mg/kg should be removed from the proposed list and included in the table requesting further comments. INS 950 Acesulfame Potassium (sweetener) was included at 200 mg/kg and it was agreed to request further comments for a higher level. It was noted that this additive was adopted at 1000 mg/kg for food category 04.2.2.3 of the GSFA.

164. The Committee noted that further comments on additives for this commodity should be sought vis-à-vis food categories 04.1.2.10 – Fermented Fruit Products and 04.2.2.7 – Fermented Vegetables (excluding those from food category 12.10) of the GSFA.

#### ***Preserved Tomatoes***

165. The Committee had an exchange of views on the removal of three firming agents INS 341(i), 516 and 578 for mono-calcium phosphate, calcium phosphate and calcium gluconate at GMP level. Those delegations in favour of retention of these additives indicated that they were listed in the Standard in force and in Table III of the GSFA. These delegations supported the retention of these additives in the proposed list in square brackets and to request the advice of CCFA as per the endorsement of these additives as suitable for this commodity. Other delegations indicated that based on information provided by the Observer from WPTC the use of these additives were not technologically justified. These delegations also indicated that CCFA assessed additives from the safety point of view but technological justification should be provided by the commodity committee.

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<sup>21</sup> Codex Alimentarius Procedural Manual, Relations between Commodity Committees and General Committees, Section II, 15<sup>th</sup> Edition.

166. The Committee could not agree on the inclusion of these additives in the proposed list and they were thus retained in the Table for further comments and consideration at the next session of the Committee.

167. The US delegation expressed its concern about the limited time available for the review and comments on the deletion of the 3 previously adopted food additives (firming agents).

#### ***Canned citrus fruits***

168. The Committee noted that INS 327 Methyl Cellulose was proposed as an anti-clouding agent. However, there was no functional class identified as such in Class Names and the International Numbering System for Food Additives therefore it was unlikely that CCFA would endorse this additive. Some proposals to associate this additive to the technological function of thickener, emulsifier or stabilizer were made however the Committee was unable to make a decision in this respect. The Committee agreed to consider this matter further at its next session.

#### **Conclusion**

169. The Committee agreed with the list of food additives as proposed by the Working Group with the addition of acesulfame potassium to the additive list for pickled fruits and vegetables and to send them for endorsement by the Committee on Food Additives (food additive provisions for pickled fruits and vegetables, processed tomato concentrates, preserved tomatoes and certain canned citrus fruits).

170. The Committee also agreed to include the list of food additives as proposed by the Working Group for the standards on certain canned vegetables and jams, jellies and marmalades for comments and further consideration at its next meeting.

171. The Committee further agreed to append to the Report of this Session a list of food additives for the various processed fruits and vegetables under consideration for comments on the technological justification for the use of these additives and on the proposed levels according to the criteria established in the GSFA (Preamble Section 3.2) for possible inclusion in the standards under consideration at its next session (Appendix XIII).

172. The Committee noted the concern from Australia regarding the limited time to review the list of food additive provisions as proposed by the Working Group and the subsequent decisions taken in this regard.

#### **DATE AND PLACE OF THE NEXT SESSION (Agenda Item 7)**

173. The Committee was informed that the 24<sup>th</sup> Session of the Codex Committee on Processed Fruits and Vegetables was tentatively scheduled to be held in the United States in 2008. The exact date and venue would be decided between the United States and the Codex Secretariats.

## STATUS OF WORK

SUBJECT	STEP	FOR ACTION BY :	DOCUMENT REFERENCE ALINORM 07/30/27
Draft Codex Standard for Pickled Fruits and Vegetables	8	30 <sup>th</sup> CAC	para. 38 and Appendix II
Draft Codex Standard for Processed Tomato Concentrates	8		para. 54 and Appendix III
Draft Codex Standard for Preserved Tomatoes	8		para. 73 and Appendix IV
Draft Codex Standard for Certain Canned Citrus Fruits	8		para. 89 and Appendix V
Proposed draft Codex Standard for Jams, Jellies and Marmalades	5	30 <sup>th</sup> CAC 24 <sup>th</sup> CCPFV	para. 146 and Appendix VI
Proposed draft Codex Standard for Certain Canned Vegetables (General Provisions)	5	30 <sup>th</sup> CAC Working Group on Canned Vegetables 24 <sup>th</sup> CCPFV	para. 114 and Appendix VII
Proposed draft Annexes specific to certain canned vegetables (proposed draft Codex Standard for Certain Canned Vegetables)	3	Working Group on Canned Vegetables 24 <sup>th</sup> CCPFV	para. 114 and Appendix VII
Proposed draft Codex Guidelines for Packing Media on Canned Vegetables	3		para. 114 and Appendix VIII
Proposed Layout for Codex Standards for Processed Fruits and Vegetables	-----	24 <sup>th</sup> CCPFV	para. 11 and Appendix IX
Project Document on Sampling Plan Including Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables	-----	30 <sup>th</sup> CAC France 24 <sup>th</sup> CCPFV	para. 148 and Appendix X
Proposals for Amendments to the Priority List for the Standardization of Processed Fruits and Vegetables	-----	24 <sup>th</sup> CCPFV	para. 149 and Appendix XI
Methods of Analysis for Processed Fruits and Vegetables - Aqueous Coconut Products	-----	24 <sup>th</sup> CCPFV	para. 156 and Appendix XII
Food Additives Provisions for Processed Fruits and Vegetables	-----	24 <sup>th</sup> CCPFV	para. 171 and Appendix XIII

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## DRAFT CODEX STANDARD FOR PICKLED FRUITS AND VEGETABLES

### (AT STEP 8)

#### 1 SCOPE

This Standard applies to products, as defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repacking if required. The products covered by this Standard include, but are not limited to onions, garlic, mango, radish, ginger, beetroot, royal plum, peppers, hearts of palm, cabbage, lettuce, lemons, baby corn (young corn) and green mustard (*Brassica juncea* ssp). It does not apply to the product when indicated as being intended for further processing. This Standard does not cover pickled cucumbers, kimchi, table olives, sauerkraut, chutneys and relishes.

#### 2 DESCRIPTION

##### 2.1 PRODUCT DEFINITION

Pickled fruits and vegetables is the product:

- (a) prepared from sound, clean and edible fruits and/or vegetables, with or without seeds, spices, aromatic herbs and/or condiments;
- (b) processed or treated to produce an acid or acidified product preserved through natural fermentation or acidulants. Depending on the type, appropriate ingredients are added in order to ensure preservation and quality of the product;
- (c) processed in an appropriate manner, before or after being hermetically sealed in a container, so as to ensure the quality and safety as well as to prevent spoilage; and/or
- (d) packed with or without a suitable liquid packing medium (e.g. oil, brine or acidic media such as vinegar) as specified in Section 3.1.2, with ingredients appropriate to the type and variety of pickled product, to ensure an equilibrium pH of less than 4.6.

##### 2.2 STYLES

- (a) Any presentation of the product should be permitted provided that the product meets all requirements of the Standard;
- (b) Style presentations could include for example, whole, pieces, halves, quarters, cubes, shredded or chopped.

##### 2.3 TYPES OF PACK

2.3.1 **Solid Pack** – without any added packing medium.

2.3.2 **Regular Pack** – with a packing medium added, as specified in Section 3.1.2.

#### 3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

##### 3.1 COMPOSITION

###### 3.1.1 Basic Ingredients

Fruits and vegetables and liquid packing medium when appropriate, as defined in Sections 2.1(a), 2.1(d) and 3.1.2, in combination with one or more of the other permitted ingredients listed in Section 3.1.3.

###### 3.1.2 Packing Media

In accordance with the Codex Guidelines on Packing Media for Canned Fruits (CAC/GL 51-2003) or the Codex Guidelines on Packing Media for Canned Vegetables (under development) as appropriate.

###### 3.1.3 Other Permitted Ingredients

- (a) cereal grains;
- (b) dried fruits;
- (c) malt extract;
- (d) nuts;
- (e) pulses;
- (f) sauce (e.g. fish sauce);

- (g) soy sauce;
- (h) foodstuff with sweetening properties such as sugars (including syrups) and honey as defined in the Codex Standards for Sugars (CODEX STAN 212-1999) and Honey (CODEX STAN 12-1981) respectively; and
- (i) other ingredients as appropriate.

### 3.2 QUALITY CRITERIA

The product shall have colour, flavour, odour and texture characteristic of the product.

#### 3.2.1 Other Quality Criteria

##### 3.2.1.1 *Pickled fruits and/or vegetables in edible oil*

The percentage of oil in the product shall not be less than 10% by weight.

##### 3.2.1.2 *Pickled fruits and/or vegetables in brine or an acidic medium*

The percentage of salt in the covering liquid or the acidity of the media shall be sufficient to ensure the keeping quality and proper preservation of the product.

##### 3.2.1.3 *Definition of Defects*

- (a) Blemishes - means any characteristic including, but not limited to, bruises, scab, and dark discoloration, which adversely affects the overall appearance of the product.
- (b) Harmless extraneous material - means any vegetable part (such as, but not limited to, a leaf or portion thereof, or a stem) that does not pose any hazard to human health but affects the overall appearance of the final product.

##### 3.2.1.4 *Defects and Allowances*

The product should be practically free from defects as defined in Section 3.2.

### 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

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 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5; and
- (b) the requirements, which are based on sample averages, are complied with.

## 4 FOOD ADDITIVES

### 4.1 ACIDITY REGULATORS

INS No.	Name of the Food Additive	Maximum Level
260	Acetic Acid	GMP
262(i)	Sodium Acetate	
270	Lactic Acid	
296	Malic Acid	
330	Citric Acid	

### 4.2 ANTIFOAMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
900(a)	Polydimethylsiloxane	10 mg/kg

#### 4.3 ANTIOXIDANTS

INS No.	Name of the Food Additive	Maximum Level
300	Ascorbic Acid	GMP

#### 4.4 COLOURS

INS No.	Name of the Food Additive	Maximum Level
101(i), (ii)	Riboflavins	500 mg/kg
140	Chlorophylls	GMP
141(i), (ii)	Chlorophyll, Copper Complexes	100 mg/kg
150(d)	Caramel Colour, Class IV	500 mg/kg
160(ai), (aia), (e), (f)	Carotenoids	500 mg/kg
162	Beet Red	GMP
163(ii)	Grape Skin Extract	500 mg/kg

#### 4.5 FIRMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
327	Calcium Lactate	GMP
509	Calcium Chloride	

#### 4.6 FLAVOUR ENHANCERS

INS No.	Name of the Food Additive	Maximum Level
621	Monosodium L-Glutamate	GMP

#### 4.7 PRESERVATIVES

INS No.	Name of the Food Additive	Maximum Level
200-203	Sorbates	1000 mg/kg as sorbic acid
210-213	Benzoates	1000 mg/kg as benzoic acid
220-225, 227, 228, 539	Sulphites	100 mg/kg

#### 4.8 SEQUESTRANTS

INS No.	Name of the Food Additive	Maximum Level
385, 386	EDTAs	250 mg/kg
451(i)	Sodium Tripolyphosphate	2200 mg/kg as phosphorus
452(i)	Sodium metaphosphate	

#### 4.9 SWEETENERS

INS No.	Name of the Food Additive	Maximum Level
950	Acesulfame Potassium	200 mg/kg
951	Aspartame	200 mg/kg
954	Saccharin	160 mg/kg
955	Sucralose	150 mg/kg

## 5 CONTAMINANTS

### 5.1 PESTICIDE RESIDUES

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

### 5.2 OTHER CONTAMINANTS

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

## 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), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979) 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 latest edition of the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997)<sup>1</sup>.

## 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 appropriate) 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 following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled<sup>2</sup>.

- (a) Whole and Halves Style should not be less than 40% of the net weight;
- (b) Pieces Style and Other Styles should not be less than 50% of the net weight (except for pickled red cabbage should not be less than 45% of the net weight).

#### 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.

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<sup>1</sup> 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), 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.

<sup>2</sup> 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 LABELLING**

8.1 The products 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:

### **8.2 NAME OF THE PRODUCT**

8.2.1 Pickled fruits and/or vegetables shall be labelled according to the type and in combination with the name of major ingredient. Example - a pickle made from ginger shall be labelled "Pickled Ginger in Brine".

8.2.2 The presentation style should be declared on the label of the food if its omission would mislead or deceive the consumer.

### **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**

**The methods of analysis listed below will be considered  
by the Codex Comité on Methods of Analysis and Sampling for endorsement.  
The following should be taken in account when submitting comments on such methods:**

The CCMAS noted that it would not be procedurally correct to endorse a method before relevant Codex provisions had been established. It is noted that where there is a specification or labelling requirement in the Standard, it is necessary to recommend a method(s) for the provision. However, if there is no specification or labelling requirement, there is no need to select methods of analysis.

Governments and Observers wishing to submit comments on methods of analysis listed below should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex standards and related texts including the Procedural Manual are available on the Codex website at: <http://www.codexalimentarius.net/web/>).

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Arsenic	AOAC 952.13 (Codex General Method)	Colorimetry, diethyldithiocarbamate			II	E
Arsenic	ISO 6634:1982	Spectrophotometry, silver diethyldithiocarbamate			III	E
Benzoic acid	AOAC 983.16	Gas Chromatography			II	E
Benzoic acid	NMKL 124 (1997)	Liquid Chromatography	The CCPFV should consider more modern methods (LC method) such as NMKL 124 (1997).	ADD - As recommended by CCMAS		
Benzoic acid	NMKL 103 (1984)	Gas Chromatography		DELETE	II	E
Drained weight	AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving Gravimetry	The CCMAS deleted this methods as no relevant provisions existed in the draft Standard. The CCMAS endorsed AOAC 968.30 as a general method for the determination of drained weight in processed fruits and vegetables. This method replaces CAC/RM 36/1970.	REINSERT	I	

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Fill of containers	CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	The CCMAS retained the method while deleting the references to “metal containers” and refer to ISO 90:1:1986 for determination of water capacity in metal containers.	ADD	I	
Lead	AOAC 972.25 (Codex General Method)	Atomic absorption spectrophotometry			II	E
Lead	ISO 6633:1984	Flameless atomic absorption spectrophotometry	The CCMAS recalled that the method proposed as Type IV for lead was temporarily endorsed since 1998 and asked the CCPFV whether this method was necessary since a general Codex method AOAC 972.25 already existed as Type II.	DELETE	IV	TE
pH	AOAC 981.12	Potentiometry		ADD	I	
pH	NMKL 179:2005		The CCMAS endorsed this method for the determination of pH in processed fruits and vegetables (except canned bamboo shoots)		II	
Sorbate	AOAC 983.16	Gas Chromatography			II	E
Sorbate	NMKL 124 (1997)	Liquid Chromatography	The CCPFV should consider more modern methods (LC method) such as NMKL 124 (1997).	ADD - As recommended by CCMAS		
Sorbate	NMKL 103 (1984)	Gas Chromatography		DELETE	II	E
Sulphur Dioxide	EN 1988-1:1998-02 AOAC 990.28 (sulphites)	Optimized Monier-Williams method	General method for sulphites (food additives)		III	E
Tin	AOAC 980.19 (Codex General Method)	Atomic absorption spectrophotometry			II	E
Tin ≤ 250.0 mg/kg	ISO 2447:1998	Spectrophotometry	The CCPFV should consider using the General Codex Method AOAC 980.19 and clarify why this method is proposed.	DELETE		NE

**DRAFT CODEX STANDARD FOR PROCESSED TOMATO CONCENTRATES**  
**(AT STEP 8)**

**1 SCOPE**

This Standard applies to the product as defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repacking if required. This Standard also applies to the product when indicated as being intended for further processing. The Standard does not include products that contain seeds and skins such as “pizza toppings” and other “homestyle” products as well as products commonly known as tomato sauce, chilli sauce, and ketchup, or similar products which are highly seasoned products of varying concentrations containing characterising ingredients such as pepper, onions, vinegar, etc., in quantity that materially alter the flavour, aroma and taste of the tomato component.

**2 DESCRIPTION**

**2.1 PRODUCT DEFINITION**

Processed tomato concentrate is the product:

- (a) prepared by concentrating the juice<sup>1</sup> or pulp obtained from substantially sound, mature red tomatoes (*Lycopersicon/Lycopersicum esculentum* P. Mill) strained or otherwise prepared to exclude the majority of skins, seeds and other coarse or hard substances in the finished product; and
- (b) preserved by physical means.

The tomato concentration shall be 7% or more of natural total soluble solids<sup>2</sup>, but not dehydrated to a dry powder or flake form.

**2.2 PRODUCT DESIGNATION**

Tomato concentrate may be considered “Tomato Puree” or “Tomato Paste” when the concentrate meets these requirements:

2.2.1 “Tomato Puree” – Tomato concentrate that contains no less than 7% but less than 24% of natural total soluble solids.

2.2.2 “Tomato Paste” – Tomato concentrate that contains at least 24% of natural total soluble solids.

**3 ESSENTIAL COMPOSITION AND QUALITY FACTORS**

**3.1 COMPOSITION**

**3.1.1 Basic Ingredients**

Processed tomato concentrate as defined in Section 2.1.

**3.1.2 Other Permitted Ingredients**

- (a) salt (sodium chloride) in accordance with the Codex Standard for Food Grade Salt (CODEX STAN 150-1985);
- (b) spices and aromatic herbs (such as basil leaf, etc.) and their natural extracts;
- (c) lemon juice (single strength or concentrated) used as an acidulant; and
- (d) water.

**3.2 QUALITY CRITERIA**

Processed tomato concentrates shall have good flavour and odour, fairly good red colour, and shall possess a homogeneous (evenly divided) texture, characteristic of the product.

**3.2.1 Definition of Defects**

Processed tomato concentrates shall be prepared in accordance with good manufacturing practices (GMP), from such materials and under such practices that the product is substantially free of extraneous plant materials, this including other objectionable material and shall be practically free of mineral impurities.

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<sup>1</sup> In this Standard, “juice” must not be intended as the fruit juice (including tomato juice) as defined in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005).

<sup>2</sup> The concentrations are measured on the product without added salt.

Consistent with its intended use, these conditions are fulfilled when:

- (a) the product is practically free of objectionable tomato peel;
- (b) the product is practically free of seeds or particles of seeds;
- (c) the presence of any extraneous plant material other than seed and peel and other than those used as seasonings cannot be detected by the naked eye, and can only be seen under microscope; and
- (d) the product is practically free of dark specks or scale-like particles.

### 3.2.2 Defects and Allowances

#### 3.2.2.1 Mineral impurities<sup>3</sup>

The mineral impurity content does not exceed 0.1% of the natural total soluble solids content.

#### 3.2.2.2 Lactic Acid

The content of lactic acid (total) does not exceed 1% of the natural total soluble solids content.

#### 3.2.2.3 Mould Count

Mould count for processed tomato concentrates to be set according to the legislation of the country of retail sale.

#### 3.2.2.4 pH

The pH must be below 4.6.

### 3.3 CLASSIFICATION OF “DEFECTIVES”

A container that fails to meet the natural total soluble solids requirements, as set out in Section 2.2, and/or one or more of the applicable quality requirements, as set out in Section 3.2, 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) the number of “defectives”, as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5; and
- (b) the maximum allowance for mould count is not exceeded (see Section 3.2.2.3).

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

## 4 FOOD ADDITIVES

### 4.1 ACIDITY REGULATORS

INS No.	Name of the Food Additive	Maximum Level
330	Citric Acid	GMP
331(i)	Sodium dihydrogen citrate	
331(iii)	Trisodium citrate	
332(i)	Potassium dihydrogen citrate	
332(iii)	Tripotassium citrate	
333	Calcium citrates	

## 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.

<sup>3</sup> Sand, soil and any other impurities insoluble in hydrochloric acid.

5.1.2 In order to consider the concentration of the product, the determination of the maximum pesticide residue limits shall take into account the natural total soluble solids, the reference value being 4.5 for fresh fruit.

## 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.

5.2.2 In order to consider the concentration of the product, the determination of the maximum levels for contaminants shall take into account the natural total soluble solids, the reference value being 4.5 for fresh fruit.

## 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), 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<sup>4</sup>

### 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.

#### 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.

## 8 LABELLING

8.1 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:

### 8.2 NAME OF THE PRODUCT

The name of the product shall be:

- (a) “Tomato Puree” if the food contains not less than 7% but less than 24% natural total soluble solids;
- (b) “Tomato Paste” if the food contains not less than 24% natural total soluble solids;
- (c) Another denomination usually employed in the country accompanied by the declaration of the percentage of the natural total soluble solids; or
- (d) 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.

### 8.3 DECLARATION OF THE PERCENTAGE OF NATURAL TOTAL SOLUBLE SOLIDS

The percentage 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%”).

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<sup>4</sup> The provisions in this Section do not apply to non-retail containers.

#### 8.4 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

**The methods of analysis listed below will be considered  
 by the Codex Comité on Methods of Analysis and Sampling for endorsement.  
 The following should be taken in account when submitting comments on such methods:**

The CCMAS noted that it would not be procedurally correct to endorse a method before relevant Codex provisions had been established. It is noted that where there is a specification or labelling requirement in the Standard, it is necessary to recommend a method(s) for the provision. However, if there is no specification or labelling requirement, there is no need to select methods of analysis.

Governments and Observers wishing to submit comments on methods of analysis listed below should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex standards and related texts including the Procedural Manual are available on the Codex website at: <http://www.codexalimentarius.net/web/>).

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Fill of containers	CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	The CCMAS retained the method while deleting the references to “metal containers” and refer to ISO 90:1:1986 for determination of water capacity in metal containers.	ADD	I	
Lactic Acid	EN 1139	Enzymatic determination	European Industry General Method for determination of Lactic acid in processed tomato concentrates	ADD		
Mineral impurities (sand)	AOAC 971.33 (Codex General Method for processed fruits and vegetables)	Gravimetry	The CCMAS endorsed AOAC 971.33 as a general method for the determination of mineral impurities in jams, jellies and marmalades and processed tomato concentrates.  This method replaces CAC/RM 49/1972.		I	E
Mould count	AOAC 965.41	Howard mould count		ADD	I	
pH	AOAC 981.12	Potentiometry		ADD	I	
pH	NMKL 179:2005		The CCMAS endorsed this method for the determination of pH in processed fruits and vegetables (except canned bamboo shoots)		II	



Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Sodium Chloride	ISO 3634:1979 expressed as sodium chloride- (Codex General Method)	Potentiometry			III	E
Solids (soluble)	AOAC 932.12 ISO 2173:1978 (Codex General Method for processed fruits and vegetables)	Refractometry		ADD	I	
Tomato soluble solids	AOAC 970.59		AOAC 970.59 is already contained in CX/STAN 234/1999 for processed tomato concentrates.		I	E

**DRAFT CODEX STANDARD FOR PRESERVED TOMATOES**  
**(AT STEP 8)**

**1 SCOPE**

This Standard applies the products, as defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repacking if required. This Standard also applies to the product when indicated as being intended for further processing. The Standard does not include dried tomatoes and preserved tomatoes containing other vegetables such as pepper and onions in quantities that materially alter the flavour, aroma and taste of the tomato component.

**2 DESCRIPTION**

**2.1 PRODUCT DEFINITION**

Preserved tomatoes is the product:

- (a) prepared from fresh, washed, ripened tomatoes, conforming to the characteristics of the fruit of *Lycopersicon/Lycopersicum esculentum* P. Mill, of red or reddish varieties which are clean and which are sound. The tomatoes shall have had the stems and calices removed and where necessary, the core;
- (b) packed with or without a suitable packing medium and seasoning ingredients appropriate to the product; and
- (c) processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage.

**2.2 VARIETAL TYPE**

Tomatoes of distinct varietal groups (cultivars Open Pollinated or hybrids) with respect to shape or other similar physical characteristics may be designated as:

**2.2.1 Round:** globular or semi-globular shape.

**2.2.2 Cylinder, Pear, Egg or Plum:** elongated shape.

**2.3 STYLES**

Preserved tomatoes in these styles are prepared in whole or not whole form. The whole form normally is prepared with peel removed; if the peel is not removed, the style is considered additionally as "Unpeeled":

**2.3.1 Whole:** Tomatoes which keep their initial shape after processing.

**2.3.2 Unwhole (Pieces):** Tomatoes crushed or cut into sections whose shape may be irregular or regular.

For the not whole tomatoes the style should be better specified according with the type of grinding or cutting:

- (a) **Diced:** tomatoes cut into cubes;
- (b) **Sliced:** tomatoes cut perpendicularly to the longitudinal axis in rounds with a regular thickness;
- (c) **Wedges:** tomatoes cut into four roughly equal parts;
- (d) **Pulp or crushed or chopped:** tomatoes crushed, ground or pulped when appropriate.

**2.3.3 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;
- (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.

**2.4 TYPES OF PACK**

**2.4.1 Solid Pack** – without any added packing medium.

2.4.2 **Regular Pack** – with a packing medium added, as specified in Section 3.1.2.

### 3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 3.1 COMPOSITION

##### 3.1.1 Basic Ingredients

Tomatoes as defined in Section 2 and packing medium when appropriate, as defined in Section 3.1.2.

##### 3.1.2 Packing Media

Preserved tomatoes may be packed in the following packing media:

- (a) **Juice**<sup>1</sup>: the liquid obtained from ripened tomatoes, from the residue resulting from preparing tomatoes for canning or by diluting tomato concentrates;
- (b) **Tomato puree or Tomato concentrate**: as described in the Codex Standard for Processed Tomato Concentrates;
- (c) **Pulp**: skinless ground tomatoes;
- (d) **Water**: only in unpeeled preserved tomatoes.

##### 3.1.3 Other Permitted Ingredients

- (a) Spices, aromatic herbs (such as basil leaves) and natural extracts of these and seasonings excluding tomato flavouring;
- (b) Salt (sodium chloride) in accordance with the Codex Standard for Food Grade Salt (CODEX STAN 150-1985);
- (c) When acidifying agents are used, sugars, as listed in the Codex Standard for Sugars (CODEX STAN 212 – 1999) with specific labelling.

#### 3.2 QUALITY CRITERIA

Preserved tomatoes shall have normal colour characteristic for ripened tomatoes, properly processed, a normal flavour and odour free from flavours or odours foreign to the product. Preserved tomatoes with special ingredients shall have a flavour characteristic of that imparted by the tomatoes and the other substances used.

##### 3.2.1 Definitions of defects and other terms used in Section 3.2

3.2.1.1 **Whole or Almost Whole**: a tomato of any size in which the contour is not materially altered by coring or trimming; the unit may be readily restored to practically its original conformation; it may be slightly cracked or split but not to the extent that there is substantial loss of shape.

3.2.1.2 **Objectionable core material**: tough and fibrous texture or tomato tissue representing the tomato core that is definitely objectionable as to appearance and edibility.

3.2.1.3 **Blemishes**: areas into which lesions on the surface have penetrated and as a result thereof contrast strongly in colour or texture with the normal tomato tissue and should normally have been removed during processing.

3.2.1.4 **Extraneous plant material**: tomato leaves, stems, calyx bracts, and similar plant material.

3.2.1.5 **Peel (or skin)**: the residual pieces of skin, having a length higher than 5 mm, which adheres to the tomato flesh or is found loose in the container.

##### 3.2.2 Size or Wholeness

Size or wholeness, as such, is only a factor in the style designated as "Whole" style. Preserved tomatoes of "Whole" style shall consist of not less than 65% m/m of drained tomatoes in whole or almost whole units, except that in any container there may be one unit that is not whole. For small cans (less than 500 g net weight) this value shall be 70%.

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<sup>1</sup> In this Standard, "juice" must not be intended as the fruit juice (including tomato juice) as defined in the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005).

### 3.2.3 Defects and Allowances

The finished product shall be prepared from such materials and under such practices that it shall be substantially free from objectionable core material and extraneous plant material and shall not contain excessive defects whether specifically mentioned in this Standard or not. Certain common defects should not be present in amounts greater than the following limitations:

#### 3.2.3.1 *Peel* (only for whole and peeled styles):

Whole peeled: not more than 30 cm<sup>2</sup> aggregate area per kg of total contents.

#### 3.2.3.2 *Blemishes*

Not more than 3.5 cm<sup>2</sup> aggregate area per kg of total contents.

#### 3.2.3.3 *Mould Count*

Mould count for preserved tomatoes to be set according to the legislation of the country of retail sale.

#### 3.2.3.4 *pH*

The pH must not exceed 4.5.

### 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, 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) the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5; and
- (b) the maximum allowance for mould count is not exceeded (see Section 3.2.3.3).

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

## 4 FOOD ADDITIVES

### 4.1 ACIDITY REGULATORS

INS No.	Name of the Food Additive	Maximum Level
330	Citric Acid	GMP
331(i)	Sodium Dihydrogen Citrate	
331(iii)	Trisodium Citrate	
332(i)	Potassium dihydrogen Citrate	
332(ii)	Tripotassium Citrate	
333	Calcium Citrates	
575	Glucono delta-Lactone	

### 4.2 FIRMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
327	Calcium Lactate	GMP
333	Calcium Citrates	
509	Calcium Chloride	

## 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.

5.1.2 In order to consider the concentration of the product, the determination of the maximum pesticide residue limits shall take into account the natural total soluble solids, the reference value being 4.5 for fresh fruit.

## 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.

5.2.2 In order to consider the concentration of the product, the determination of the maximum levels for contaminants shall take into account the natural total soluble solids, the reference value being 4.5 for fresh fruit.

## 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), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979) 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)<sup>2</sup>.

## 7 WEIGHTS AND MEASURES<sup>3</sup>

### 7.1 FILL OF CONTAINER

#### 7.1.1 Minimum Fill

The container should be well filled with the product (including packing medium when appropriate) 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 50%, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled<sup>4</sup>.

##### 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 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:

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<sup>2</sup> 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), 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.

<sup>3</sup> The provisions in this Section do not apply to non-retail containers.

<sup>4</sup> 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.

## 8.2 NAME OF THE PRODUCT

8.2.1 The name of the product shall be:

- (a) "Peeled Tomatoes" or "Whole peeled Tomatoes", for the products "Whole", if the peel has been removed;
- (b) "Tomatoes", for the other presentations;
- (c) "Unpeeled tomatoes", if the peel has not been removed or if the allowances indicated in Section 2.3.5.1 are not respected.

8.2.2 The styles, as defined in Section 2.3 and the packing media defined in Section 3.1.2 shall be declared as part of the name or in close proximity to the name.

8.2.3 If an added ingredient, as defined in Section 3.1.3, 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.

8.2.4 **Other styles** - If the product is produced in accordance with the other styles provision (Section 2.3.3), the presentation style should be declared on the label of the food if its omission would mislead or deceive the consumer.

8.2.5 The following may be stated on the label:

- (a) **the type**: "solid pack" if the pack complies with Section 2.4.1;
- (b) **the packing material**: "juice" or other, if the pack complies with Section 2.4.2.

## 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

**The methods of analysis listed below will be considered  
by the Codex Comité on Methods of Analysis and Sampling for endorsement.  
The following should be taken in account when submitting comments on such methods:**

The CCMAS noted that it would not be procedurally correct to endorse a method before relevant Codex provisions had been established. It is noted that where there is a specification or labelling requirement in the Standard, it is necessary to recommend a method(s) for the provision. However, if there is no specification or labelling requirement, there is no need to select methods of analysis.

Governments and Observers wishing to submit comments on methods of analysis listed below should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex standards and related texts including the Procedural Manual are available on the Codex website at: <http://www.codexalimentarius.net/web/>).

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Calcium	AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	The CCMAS endorsed AOAC 968.31 as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970.	ADD	II	
Drained weight	AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving Gravimetry	The CCMAS endorsed AOAC 968.30 as a general method for the determination of drained weight in processed fruits and vegetables. This method replaces CAC/RM 36/1970.	ADD	I	
	ISO UNIUN SERIES 2331	Sieving	<b>For Crushed Style Only</b>	NEW		
Fill of containers	CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	The CCMAS retained the method while deleting the references to “metal containers” and refer to ISO 90:1:1986 for determination of water capacity in metal containers.	ADD	I	
Mould count	AOAC 965.41	Howard mould count		ADD	I	
pH	AOAC 981.12	Potentiometry		NEW	I	

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
pH	NMKL 179:2005		The CCMAS endorsed this method for the determination of pH in processed fruits and vegetables (except canned bamboo shoots)	ADD	II	
Solids (Soluble)	AOAC 932.12 ISO 2173:1978 (Codex General Method for processed fruits and vegetables)	Refractometry		ADD	I	



~~CAC/RM 37/1970<sup>5</sup>~~  
~~DETERMINATION OF DRAINED WEIGHT~~  
~~(for preserved tomatoes only)~~

**[DELETED AND REPLACED BY THE METHODS SHOWN IN THE TABLE BELOW]**

Drained weight	AOAC 968.30 (Codex General Method for processed fruits and vegetables)
Drained weight	ISO UNIUN SERIES 2331

**1. — DEFINITION**

Drained weight expresses % solid content as determined by the procedure described below.

**2. — SPECIFICATIONS FOR CIRCULAR SIEVES**

2.1 — If the quantity of the total contents of the container is less than 1 kg (2 lbs) use a sieve with a diameter of 20 cm (8 in).

2.2 — If the quantity of the total contents of the container is 1.5 kg (3 lb) or more, use a sieve with a diameter of 30 cm (12 in).

2.3 — The meshes of such sieves are made by so weaving wire as to form square openings of 11.2 mm by 11.2 mm<sup>6</sup>.

**3. — PROCEDURE**

Remove lid from container, but in the case of a container with lid attached by double seam, do not remove or alter the height of the double seam. Tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed or for which a tare has been established. Without shifting the contents, incline the sieve approximately 20° from the horizontal to facilitate drainage of the liquid. Allow to drain for two minutes. At the end of the two minutes draining period, ascertain the weight of the material while still on the sieve, allowing for the tare (or weight of the sieve). This determination should be performed at 20°C ± 5°C

**4. — CALCULATION AND EXPRESSION OF RESULTS**

From weights thus obtained determine % m/m liquid and %m/m drained weight (solid content).

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<sup>5</sup> — See the Section on Methods of Analysis and Sampling and indicate how to introduce the recommendation of the 22<sup>nd</sup> CCPFV as per weighing of (1) full and (2) dry empty containers.

<sup>6</sup> — Ref. ISO Recommendation R 565; such sieves may be replaced by US sieves 2 mesh (size of opening 11.3 mm).

**DRAFT CODEX STANDARD FOR CERTAIN CANNED CITRUS FRUITS  
(AT STEP 8)**

**1 SCOPE**

This Standard applies to certain canned citrus fruits, 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 citrus fruit is the product:

- (a) prepared from washed, sound and mature ripe grapefruit (*Citrus paradise* Macfadyen), mandarin oranges (*Citrus reticulata* Blanco, including all the suitable commercial varieties for canning), sweet orange varieties (*Citrus sinensis* (L.), Osbeck, including all the suitable commercial varieties for canning) or pummelo (*Citrus Maxima* Merr. or *Citrus grandis* (L.));
- (b) packed with water or other suitable liquid packing medium, sugars as defined in the Codex Standard for Sugars (CX-STAN 212-1999), honey as defined in the Codex Standard for Honey (CODEX STAN 12-1981), suitable spices or flavouring ingredients appropriate to the product;
- (c) processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage. Before processing, the fruit shall have been properly washed and peeled and the membrane, seeds and core and fibre strands originating from albedo or core, shall have been substantially removed from the sections.

**2.2 COLOUR TYPES (canned grapefruit or canned pummelo only)**

2.2.1 **White** - produced from white-fleshed grapefruit or pummelo.

2.2.2 **Pink** - produced from pink or red-fleshed grapefruit or pummelo.

2.2.3 **Pale yellow** - produced from pale yellow fleshed pummelo.

**2.3 STYLES**

**2.3.1 Definitions of Styles**

Product	Whole <sup>1</sup>	Broken	Twin	Pieces
Canned Grapefruit	Not less than 75% of original segment	Less than 75% of original segment		
Canned Sweet Orange				
Canned Pummelo	Not less than 50% of original segment	Less than 50% of original segment		Large enough to remain on a screen having 8 mm <sup>2</sup> openings formed by a wire of 2 mm diameter
Canned Mandarin Orange	Not less than 75% of original segment	Not less than 50% of original segment but large enough to remain on a screen having 8 mm <sup>2</sup> openings formed by wire of 2 mm diameter.	See definition for whole except two or three segments joined together, which have not been separated during processing.	

<sup>1</sup> A segment which is split in one place only and is not prone to disintegrate shall be considered whole, but parts of a segment joined by a "thread", or by membrane only shall not be considered "whole".

### 2.3.2 **Other Styles** (Canned grapefruit, mandarin oranges, sweet orange varieties and pummelos)

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.

### 2.4 **SIZES IN WHOLE SEGMENT STYLE** (Canned mandarin oranges only)

#### 2.4.1 **Designation in accordance with size**

Canned mandarin oranges in whole segment style may be designated according to size in the following manner:

- (a) **Uniform Single Size**
  - (i) "Large" - 20 or less whole segments per 100 g of drained fruit.
  - (ii) "Medium" - 21 to 35 whole segments per 100 g of drained fruit.
  - (iii) "Small" - 36 or more whole segments per 100 g of drained fruit.
  - (iv) Single sizes shall also meet the uniformity requirements of Section 3.2.5.
- (b) **Mixed Sizes** - A mixture of two or more single sizes.

## 3 **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

### 3.1 **COMPOSITION**

#### 3.1.1 **Basic Ingredients**

Citrus fruit as defined in Section 2 and liquid packing media appropriate to the product.

#### 3.1.2 **Packing Media**

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

#### 3.1.3 **Other Permitted Ingredients** (Canned grapefruit only)

- spices.

### 3.2 **QUALITY CRITERIA**

The product shall have colour, flavour, odour and texture characteristic of the product.

#### 3.2.1 **Colour**

The colour shall be typical of fruit which has been properly prepared and properly processed. The liquid packing medium shall be reasonably clear except when it contains fruit juice in compliance with the Codex General Standard for Fruit Juices and Nectars (CODEX STAN 247-2005).

#### 3.2.2 **Flavour**

Canned grapefruit, canned mandarin oranges, canned sweet orange varieties and canned pummelo shall have a normal flavour and odour free from flavours or odours foreign to the product. Canned grapefruit with special ingredients shall have a flavour characteristic of that imparted by the grapefruit and the other substances used.

#### 3.2.3 **Texture**

The texture shall be reasonably firm and characteristic for the canned product and reasonably free from dry cells or fibrous portions affecting the appearance or edibility of the product. Whole Segments shall be practically free from signs of disintegration

#### 3.2.4 **Wholeness**

**For canned grapefruit, canned pummelo or canned sweet orange varieties only** - In the style of Whole Sections or Segments, not less than 50% by weight of drained fruit shall be in whole segments.

#### 3.2.5 **Uniformity of Size**

**For canned mandarin oranges (whole segment style - single sizes only)** - In the 95%, by count, of units (excluding broken segments) that are most uniform in size, the weight of the largest unit shall be no more than twice the weight of the smallest unit.

**3.2.6 Defects and Allowances:**

**(a) For canned grapefruit, canned sweet orange varieties and canned pummelo:**

The finished product shall be prepared from such materials and under such practices that it shall be reasonably free from extraneous fruit matter such as peel or core or albedo and shall not contain excessive defects whether specifically mentioned in this Standard or not. Certain common defects should not be present in amounts greater than the following limitations:

- (i) The total surface covered by membrane shall not exceed 20 cm<sup>2</sup> per 500 g of total contents.
- (ii) Developed seeds shall not exceed 4 per each 500 g of total contents. A developed seed is defined as a seed which measures more than 9 mm in any dimension.
- (iii) Not more than 15% by weight of the drained fruit may be blemished units. A blemished unit is a fruit section or any portion thereof which is damaged by lye peeling, by discolouration, or by any other visible injury.

**(b) For canned mandarin oranges:**

The product shall be substantially free from defects within the limits set forth as follows:

Defect	Maximum Limit in the Drained Fruit
- Broken segments (as defined in 2.3.1) (Whole segment style)	10% m/m
- Broken segments (as defined in 2.3.1) (Twin segment style)	15% m/m
- Membrane (aggregate area)	7 cm <sup>2</sup> /100 g (based on sample average)
- Fibre strands (aggregate length)	5 cm/100 g (based on sample average)
- Seeds (that measure more than 4 mm in any dimension)	1/100 g (based on sample average)

**3.3 CLASSIFICATION OF "DEFECTIVES"**

**For canned grapefruit, canned mandarin oranges, canned sweet orange varieties and canned pummelo** - A container that fails to meet one or more of the applicable quality requirements, as set out in Sections 2.4 and 3.2 (except those based on sample averages), should be considered as a "defective".

**3.4 LOT ACCEPTANCE**

- (a) **For canned grapefruit, canned mandarin oranges, canned sweet orange varieties and canned pummelo** - A lot should be considered as meeting the applicable quality requirements referred to in Sections 2.4 and 3.2 when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.
- (b) **For canned mandarin oranges** - The lot must comply with requirements of Section 3.2.6 (b) which are based on sample average.

**4 FOOD ADDITIVES**

**4.1 ACIDITY REGULATORS**

All Acidity Regulators in Table 3 and in Food Category 04.1.2.4 of the Codex General Standard for Food Additives (CODEX STAN 192-1995).

**For Mandarin Oranges, Sweet Orange varieties and Pummelos** at the maximum levels established by the GSFA.

INS No.	Name of the Food Additive	Maximum Level
330	Citric Acid	GMP (Grapefruit)

**4.2 FIRMING AGENTS – For all citrus fruits covered by the Standard**

INS No.	Name of the Food Additive	Maximum Level
509	Calcium Chloride	GMP
327	Calcium Lactate	

**5 CONTAMINANTS**

**5.1 PESTICIDE RESIDUES**

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

**5.2 OTHER CONTAMINANTS**

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

**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), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979) 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 the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997)<sup>2</sup>.

**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) 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 minimum drained weight shall be as follows<sup>3</sup>:

- (a) **For canned grapefruit, canned sweet orange varieties and and pummelos** - The drained weight of the product *shall* be not less than 50%, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.
- (b) **For canned pummelo** - The drained weight of the product *shall* be not less than 40%, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.

<sup>2</sup> 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), 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.

<sup>3</sup> 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.

- (c) **For canned mandarin oranges** - The drained weight of the product *shall* be not less than 56%, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.

#### 7.1.4.1 **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 name of the product shall be “grapefruit”, “mandarin oranges”, “pummelo”, or “oranges”, as defined in Section 2.1.

#### 8.2.2 **For Canned Grapefruit, Sweet Orange Varieties, and Canned Pummelo:**

- (a) The style shall be included as part of the name or in close proximity to the name of the product as in Section 2.3.1.
- (b) The packing medium shall be included as part of the name or in close proximity to the name of the product as in Section 3.1.2.
- (c) The colour for grapefruit or pummelo if “pink”, the colour type “pink” shall be included as part of the name or in close proximity to the name of the product.

8.2.2.1 If an added ingredient, as defined in Section 3.1.3, 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.

#### 8.2.3 **For Canned Mandarin Oranges:**

- (a) The style, as appropriate, shall be declared as a part of the name or in close proximity to the name of the product, as follows:
- (i) **Whole segments** - A size classification for Whole segments style may be stated on the label if the pack complies with the appropriate requirements of Section 2.4.1 of this Standard. In addition, the number of units present in the container may be shown by a range of count, e.g. “(number) to (number) whole segments”.
- (ii) **Broken segments.**
- (b) In the case of sizes, size designation may be declared in close proximity to the style designation, e.g. "mixed sized whole segments".
- (c) The packing medium shall be declared as part of the name or in close proximity to the name as in Section 3.1.2.

8.2.4 **Other Styles** - If the product is produced in accordance with the other styles provision (Section 2.3.2), the presentation style should be declared on the label of the food if its omission would mislead or deceive the consumer.

### 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**

**The methods of analysis listed below will be considered  
 by the Codex Comité on Methods of Análisis and Sampling for endorsement.  
 The following should be taken in account when submitting comments on such methods:**

The CCMAS noted that it would not be procedurally correct to endorse a method before relevant Codex provisions had been established. It is noted that where there is a specification or labelling requirement in the Standard, it is necessary to recommend a method(s) for the provision. However, if there is no specification or labelling requirement, there is no need to select methods of analysis.

Governments and Observers wishing to submit comments on methods of analysis listed below should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex standards and related texts including the Procedural Manual are available on the Codex website at: <http://www.codexalimentarius.net/web/>).

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Calcium	AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	The CCMAS endorsed AOAC 968.31 as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970.	ADD	II	
Drained weight	AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving Gravimetry	The CCMAS endorsed AOAC 968.30 as a general method for the determination of drained weight in processed fruits and vegetables. This method replaces CAC/RM 36/1970	ADD	I	
Fill of containers	CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	The CCMAS retained the method while deleting the references to “metal containers” and refer to ISO 90:1:1986 for determination of water capacity in metal containers.	ADD	I	
Solids (Soluble)	AOAC 932.12 ISO 2173:1978 (Codex General Method for processed fruits and vegetables)	Refractometry		ADD	I	

## PROPOSED DRAFT CODEX STANDARD FOR JAMS, JELLIES AND MARMALADES

### (AT STEP 5)

#### 1 SCOPE

1.1 This Standard applies to jams, jellies and marmalades, as defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repacking if required. This Standard does not apply to:

- (a) products when indicated as being intended for further processing such as those intended for use in the manufacture of fine bakery wares, pastries or biscuits;
- (b) products which are clearly intended or labelled as intended for special dietary uses;
- (c) reduced sugar products or those with a very low sugar content.

1.2 The terms, “preserve” or “conserve” are sometimes used to represent products covered by this Standard. The use of the terms “preserve” and “conserve” are thereby required to comply with the requirements for jam and/or extra jam as set out in this Standard.

#### 2 DESCRIPTION

##### 2.1 PRODUCT DEFINITIONS

Product	Definition
Jam <sup>1</sup>	is the product brought to a suitable consistency, made from the whole fruit, pieces of fruit, the unconcentrated and/or concentrated fruit pulp or fruit puree, of one or more kinds of fruit, which is mixed with foodstuffs with sweetening properties as defined in Section 2.2, with or without the addition of water.
Jellies	are the products brought to a semi solid gelled consistency and made from the juice and/or aqueous extracts of one or more fruits, mixed with foodstuffs with sweetening properties as defined in section 2.2, with or without the addition of water.
Citrus Marmalade	is the product brought to a suitable consistency made from a single or a mixture of citrus fruits obtained from the whole fruit, fruit pieces, fruit pulp, puree or juice, which may have all or part of the peel removed, and is mixed with foodstuffs with sweetening properties as defined in section 2.2, with or without the addition of water.
Non Citrus Marmalade	is the product prepared by cooking fruit, whole, in pieces, or crushed adding foodstuffs with sweetening properties as defined in Section 2.2 to obtain a semi-liquid or thick liquid.
Jelly Marmalade	is the product described under citrus marmalade from which all the insoluble solids have been removed but which may or may not contain a small proportion of thinly cut peel.

##### 2.2 OTHER DEFINITIONS

For the purposes of this Standard the following definitions shall also apply:

Product	Definition
Fruit	Means all of the recognised fruits and those vegetables recognised as suitable in making jams, including but not limited to ginger and Roselle, either fresh, frozen, canned, concentrated, dried, or otherwise processed and/or preserved which shall be sound, wholesome and clean and of suitable ripeness but free from deterioration and containing all its essential characteristics except that it has been trimmed, sorted and otherwise treated to remove any blemishes, bruises, toppings, tailings, cores, pits (stones) and may or may not be peeled.
Fruit Pulp	The fleshy and edible part of the whole fruit, if appropriate less the peel, skin, seeds, pips etc, which may have been sliced or crushed but which has not been reduced to a puree.

<sup>1</sup> Citrus jam may be obtained from the whole fruit cut into strips and/or sliced.



Product	Definition
Fruit Puree	The edible part of the whole fruit, if appropriate, less the peel, skin, seeds pips and similar which has been reduced to a puree by sieving or a similar process.
Aqueous extracts	The aqueous extract of fruits which subject to losses occurring during proper manufacture, contains all the water-soluble constituents of the fruit concerned.
Citrus fruit	Fruit of the <i>Citrus L.</i> family.
Foodstuffs with sweetening properties	(a) All sugars as defined in the Codex Standard for Sugars (CODEX STAN 212-1999); (b) Sugars extracted from fruit (fruit sugars); (c) Fructose syrup; (d) Brown sugar; (e) Honey as defined in the Codex Standard for Honey (CODEX STAN 12-1981).

### 3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 3.1 COMPOSITION

##### 3.1.1 Basic Ingredients

Products covered by this Standard shall consist of the following:

- (a) Fruit ingredient, as defined in Section 2.2, in quantities laid down in Sections 3.1.2 (a) – (d) below.  
These are exclusive of any added sugar or optional ingredients. In the cases of jellies the quantities where appropriate shall be calculated after deduction of the weight of water used in preparing the aqueous extracts.
- (b) Foodstuffs with sweetening properties as defined in Section 2.2.

##### 3.1.2 Fruit Content

The following percentage fruit content for jams and jellies specified at 3.1.2 (a) or 3.1.2 (b) below shall apply and shall be labelled in accordance with Section 8.2:

- (a) The products, as defined in Section 2.1, shall be produced such that the quantity of fruit ingredient used as a percentage of finished product shall be not less than:
  - 45% in general;
  - 35% for blackcurrants, mangoes, quinces, rambutan, redcurrants, rosehips, roselles, rowanberries and sea-buckthorns;
  - 30% for soursop;
  - 25% for banana, cempedak, ginger, guava, jackfruit and sappota;
  - 23% for cashew apples;
  - 20% for durian;
  - 10% for tamarind;
  - 8% for passion fruit.

or
- (b) The products, as defined in Section 2.1, shall be produced such that the quantity of fruit ingredient used as a percentage of finished product shall be not less than:
  - 35% in general;
  - 25% for blackcurrants, mangoes, quinces, rambutan, redcurrants, rosehips, roselles, rowanberries and sea-buckthorns;
  - 20% for soursop;
  - 16% for cashew apples;

- 15% for banana, cempedak, guava, jackfruit and sappota;
- 11% for ginger;
- 10% for durian;
- 6% for passion fruit and tamarind.

When fruits are mixed together, the minimum content must be reduced in proportion to the percentages used.

[In the case of Labrusca grape jam, grape juice and grape juice concentrate when added as optional ingredients, this may constitute a part of the required fruit content.]

(c) **Citrus Marmalade**

The product, as defined in Section 2.1, shall be produced such that the quantity of citrus fruit ingredient used as a percentage of the finished product shall be not less than:

- 20% of which the quantity obtained from the endocarp<sup>2</sup> shall not be less than 7.5% of the finished product where the product is predominantly made from oranges.

In addition the term “jelly marmalade” as defined in Section 2.1 may be used when the product contains no insoluble matter but may contain small quantities of thinly cut peel.

(d) **Non Citrus Marmalade**

The product, as defined in Section 2.1, shall be produced such that the quantity of fruit ingredient used as a percentage of the finished product shall not be less than 30%.

3.1.3 **Other Permitted Ingredients**

The following optional ingredients may also be used in certain products as indicated below:

<b>Ingredient</b>	<b>Permitted in</b>
Fruit juice or fruit juice concentrate	[Jams as defined in point 3.1.2 (b)]
Red fruit juice	[Jams as defined in points 3.1.2 (a) and (b)] made from gooseberries, plums, raspberries, redcurrants, rhubarb, rosehips, <b>roselle</b> , or strawberries
Red beetroot juice	[Jams, jellies made from gooseberries, plums, raspberries, redcurrants, <b>roselle</b> or strawberries]
Leaves of <i>Pelargonium odoratissimum</i>	[Jams and jellies made from quince]
Essential oils	Marmalade and jelly marmalade.
Citrus fruit juice and citrus peel	<b>Jams and jellies</b> <del>all products including marmalades</del>
<b>Liquid pectin</b>	<b>In all products</b>
Edible oils and fats (used as antifoaming agents), alcoholic drinks, nuts, herbs and spices, [ <del>vinegar.</del> ]	In all products

3.2 **SOLUBLE SOLIDS**

The soluble solids content for the finished products defined in Sections 3.1.2(a) – (c) shall in all cases be between **60 to 65% or greater**<sup>3</sup>. In the case of the finished product defined in Section 3.1.2 (d), the soluble solids content shall be between 40 and 60%. This shall be determined by refractometer subject to a tolerance of [ $\pm 3$ ] refractometric degrees with the temperature corrected to 20°C and using the International Sucrose Scale but making no corrections for insoluble solids or acids. Those products where the foodstuffs with sweetening properties have been replaced wholly or partially by sweeteners are not covered by this Standard.

<sup>2</sup> In the case of citrus fruit the endocarp means the fruit pulp (or flesh) which is often subdivided into segments and vesicas containing the juices and the seeds.

<sup>3</sup> In accordance with the legislation of the country of retail sale.

### 3.3 QUALITY CRITERIA

#### 3.3.1 General Requirements

The end product shall be of an appropriate gelled consistency, having normal colour and flavour appropriate to the type or kind of fruit ingredient used in the preparation of the mixture, while taking into account any flavour imparted by optional ingredients or any permitted colouring agents used. It shall be free from defective materials normally associated with fruits. Jelly and extra jelly shall be reasonably clear or transparent.

#### 3.3.2 Defects and Allowances for Jams

The products covered by this Standard shall be largely free of defects such as plant material skins (if peeled), stones and pieces of stones and mineral matters. In the case of berry fruits and passion fruit, seeds shall be considered a natural fruit component and not a defect unless the product is presented as “seedless”.

#### 3.4 CLASSIFICATION OF “DEFECTIVES”

A container that fails to meet one or more of the applicable quality requirements as set out in Section 3.3.1 should be considered as a “defective”

#### 3.5 LOT ACCEPTANCE

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.3.1 when the number of "defectives" as defined in Section 3.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

## 4 FOOD ADDITIVES

### 4.1 ACIDIFYING REGULATORS

INS No.	Name of the Food Additive	Maximum Level
270	Lactic Acid	GMP
296	Malic Acid	
327	Calcium Lactate	
330	Citric Acid	
331(i)	Sodium Dihydrogen Citrate	
331(iii)	Trisodium Citrate	
333	Calcium Citrates	3000 mg/kg
334	Tartaric Acid	
335(i)	Monosodium Tartrate	
335(ii)	Disodium Tartrate	
336(i)	Monopotassium Tartrate	
336(ii)	Dipotassium Tartrate	
337	Potassium Sodium Tartrate	GMP
350(i)	Sodium Hydrogen Malate	
350(ii)	Sodium Malate	
524	Sodium Hydroxide	

### 4.2 ANTIFOAMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
471	Mono- and Diglycerides of Fatty Adds	GMP
900(a)	Polydimethylsiloxane	10 mg/kg

4.3 COLOURS

INS No.	Name of the Food Additive	Maximum Level
100(i)	Curcumin	500 mg/kg
140	Chlorophyll	GMP
141(i), (ii)	Chlorophyll and Chlorophyllin copper complexes	200 mg/kg
150(a)	Caramel Colour, Class I	GMP
150(b)	Caramel Colour, Class II	80000 mg/kg
150(c)	Caramel Colour, Class III	
150(d)	Caramel Colour, Class IV	1500 mg/kg
160a(i)	Carotenes, Vegetable	1000 mg/kg
160a(i) and (ii), e, f	Carotenoids	500 mg/kg
162	Beet Red	GMP
163(ii)	Grape Skin Extracts	GMP
104	Quinoline Yellow	100 mg/kg singly or in combination
110	Sunset Yellow FCF	
120	Carmines	
124	Ponceau 4R	
129	Allura Red AC	
133	Brilliant Blue FCF	
160(d)	Lycopene	
161b(i)	Lutein from <i>Tagetes erecta</i>	
143	Fast Green FCF	

4.4 FIRMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
509	Calcium Chloride	GMP
578	Calcium Gluconate	

4.5 PRESERVATIVES

INS No.	Name of the Food Additive	Maximum Level
220-225, 227, 228, 539	Sulphites	50 mg/kg as SO <sub>2</sub> in the end product, except when made with sulphited fruit when a maximum level of 100 mg/kg is permitted in the end product
300	Ascorbic Acid	GMP

#### 4.6 THICKENING AGENTS

INS No.	Name of the Food Additive	Maximum Level
400	Alginic Acid	GMP
401	Sodium Alginate	
402	Potassium Alginate	
403	Ammonium Alginate	
404	Calcium Alginate	
406	Agar	
407	Carrageenan	
410	Carob Bean Gum	
412	Guar Gum	
415	Xanthan Gum	
418	Gellan Gum	
440	Pectins	

### 5 CONTAMINANTS

#### 5.1 PESTICIDE RESIDUES

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

#### 5.2 OTHER CONTAMINANTS

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

### 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) 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 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.

## 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 name of the product shall be:

In the case of Section 3.1.2(a):

- Jam (or preserve, if appropriate)<sup>4</sup>;
- Extra jam /High Fruit jam /jam (preserve or conserve if appropriate)<sup>4</sup>;
- Jelly;
- Extra jelly.

In the case of Section 3.1.2(b):

- Jam (or preserve);
- Jelly;
- [Fruit spread].

In the case of Section 3.1.2(c):

- Marmalade or jelly marmalade.

In the case of Section 3.1.2(d):

- “X” marmalade (“X” is a non citrus fruit).

The name used should be in accordance with the legislation of the country of retail sale.

8.2.2 The name of the product shall provide an indication of the fruit(s) used in descending order of weight **of the raw material used**. In the case of products made with three or more different fruits the alternative phrase “mixed fruit” or similar wording or **by the number of fruits** may be used.

8.2.3 The name of the product may provide an indication of the variety of fruit e.g. “Victoria” plum and /or may include an adjective describing the character e.g. “seedless”, “shredless”

[8.2.4 Jam made from **peach, pear and strawberry** ginger, pineapple or figs, with or without the addition of citrus fruits may be called “ginger marmalade” pineapple marmalade or fig marmalade if this is a customary name in the country of sale.]

### [8.3 FRUIT QUANTITY AND SUGAR DECLARATION

8.3.1 Depending on the legislation or requirements of the importing country, the products covered by this Standard may also give an indication of the fruit ingredient content in the form of “prepared with X g of fruit per 100g” and the total sugar content with the phrase “total sugar content X g per 100 g”.

8.3.2 If an indication of fruit content is given this should relate to the quantity and type of fruit ingredient used in the product as sold with a deduction for the weight of any water used in preparing the aqueous extracts.]

## 8.4 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

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<sup>4</sup> The provision in parenthesis applies only to the English version of the Standard.

**The CCMAS noted that it would not be procedurally correct to endorse a method before relevant Codex provisions had been established. It is noted that where there is a specification or labelling requirement in the Standard, it is necessary to recommend a method(s) for the provision. However, if there is no specification or labelling requirement, there is no need to select methods of analysis.**

Governments and Observers wishing to submit comments on methods of analysis listed below should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex standards and related texts including the Procedural Manual are available on the Codex website at: <http://www.codexalimentarius.net/web/>).

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Calcium	AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	The CCMAS endorsed AOAC 968.31 as a general method for the determination of calcium in processed fruits and vegetables.  This method replaces CAC/RM 38-1970.		II	
Fill of containers	CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	The CCMAS retained the method while deleting the references to “metal containers” and refer to ISO 90:1:1986 for determination of water capacity in metal containers.	ADD	I	
Mineral impurities (sand)	AOAC 971.33 (Codex General Method for processed fruits and vegetables)	Gravimetry	The CCMAS endorsed AOAC 971.33 as a general method for the determination of mineral impurities in jams, jellies and marmalades and processed tomato concentrates.  This method replaces CAC/RM 49/1972.  The CCPFV did not identify any provision in the Standard to justify the introduction of this method. As the specific Annexes were not discussed at the meeting, Codex Members and Observers are invited to comment as indicated in the box above.	[DELETE]	I	E

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Soluble solids	AOAC 932.14C ISO 2173:1978 (Codex General Method for processed fruits and vegetables)	Refractometry	The CCMAS endorsed AOAC 932.14C and ISO 2173:1978 as general methods for the determination of soluble solids in processed fruits and vegetables.		I	



**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)**

<b>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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)**

<b>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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

**PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES**  
**(AT STEP 5)**

**1 SCOPE**

This Standard applies to certain canned vegetables, 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 vegetables that are lacto-fermented, pickled or preserved in vinegar.

**2 DESCRIPTION**

**2.1 PRODUCT DEFINITION**

Canned vegetables are the products:

- (1) prepared from substantially sound, fresh (barring mature processed peas) or frozen vegetables, as defined in the corresponding Annexes, having reached appropriate maturity for processing. None of their essential elements are removed from them but they shall be washed and prepared appropriately, depending on the product to be produced. They undergo operations such as washing, peeling, grading, cutting, etc., depending on the type of product;
- (2) packed with a suitable liquid packing medium in accordance with the Codex Guidelines on Packing Media for Canned Vegetables (under development);
- (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:

- (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.

**3 ESSENTIAL COMPOSITION AND QUALITY FACTORS**

**3.1 COMPOSITION**

**3.1.1 Basic Ingredients**

Vegetables as defined in Section 2 and liquid packing medium appropriate to the product.

**3.1.2 Packing media**

In accordance with the Codex Guidelines on Packing Media for Canned Vegetables (under development).

**3.1.3 Other Permitted Ingredients**

In accordance with the relevant provisions in the corresponding Annexes.

**3.2 QUALITY CRITERIA**

**3.2.1 Colour, Flavour and Texture**

3.2.1.1 Canned vegetables shall have normal colour, flavour and odour of canned vegetables, corresponding to the type of vegetable used and shall possess texture characteristic of the product. They shall be free of fibrous and/or tough parts.

**3.2.2 Defects and Allowances**

Canned vegetables 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**

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 3.3, 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.

**4 FOOD ADDITIVES**

**4.1 ACIDITY REGULATORS**

<b>INS No.</b>	<b>Name of the Food Additive</b>	<b>Maximum Level</b>
260	Acetic Acid	GMP
261(i)	Potassium Acetate	
262(i)	Sodium Acetate	
263	Calcium Acetate	
270	Lactic Acid	
296	Malic Acid	
350(i)	Sodium Hydrogen Malate	
350(ii)	Sodium Malate	
351(i)	Potassium Hydrogen Malate	
351(ii)	Potassium Malate	
352(ii)	Calcium Malate	
300	Ascorbic Acid	
301	Sodium Ascorbate	
302	Calcium Ascorbate	
325	Sodium Lactate	
326	Potassium Lactate	
327	Calcium Lactate	
330	Citric Acid	
331(i)	Sodium Dihydrogen Citrate	
331(iii)	Trisodium Citrate	
332(i)	Potassium dihydrogen Citrate	
332(ii)	Tripotassium Citrate	
333	Calcium Citrates	

#### 4.2 COLOURS

INS No.	Name of the Food Additive	Maximum Level
102	Tartrazine	100 mg/kg (in canned mature processed peas only)
133	Brilliant Blue FCF	20 mg/kg (in canned mature processed peas only)

#### 4.3 COLOUR RETENTION AGENTS

INS No.	Name of the Food Additive	Maximum Level
385	Calcium Disodium EDTA	30 mg/kg (canned baby corn)
386	Disodium EDTA	30 mg/kg (canned baby corn)
512	Stannous Chloride	25 mg/kg calculated as tin, for use in vegetables packaged in glass jars or in entirely coated cans.

#### 4.4 FIRMING AGENTS

INS No.	Name of the Food Additive	Maximum Level
509	Calcium Chloride	GMP (mature processed peas)
578	Calcium Gluconate	

### 5 CONTAMINANTS

#### 5.1 PESTICIDE RESIDUES

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

#### 5.2 OTHER CONTAMINANTS

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

### 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), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979) 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)<sup>1</sup>.

### 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) 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. This provision does not apply to vacuum packaged vegetables.

<sup>1</sup> 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), 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.

### 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<sup>2</sup>.

#### 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.

### [7.2 LOT ACCEPTANCE

A lot should be considered as meeting the requirements of Section 7.1.1 when it complies with the checking of the average (on average the quantity contained in all the containers of the lot is not lower than the quantity stated on the label), and also when the number of “defectives” (a container that fails to meet the requirements for drained weight as set out in Section 7.1.4 should be considered a “defective”) does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL-6.5]

## 8 LABELLING

8.1 The products 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:

### 8.2 NAME OF THE PRODUCT

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

8.2.2 When the vegetables are sized, the styles and the size (or sizes when sizes are mixed), as defined in the corresponding Annexes, shall be declared as part of the name or in close proximity to the name.

8.2.3 **Other styles** - If the product is produced in accordance with the other styles provision (Section 2.2.1), the presentation style should be declared on the label of the food if its omission would mislead or deceive the consumer.

8.2.4 If an added ingredient, as defined in Section 3.1.3, 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.

### 8.3 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

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<sup>2</sup> 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.

**The CCMAS noted that it would not be procedurally correct to endorse a method before relevant Codex provisions had been established. It is noted that where there is a specification or labelling requirement in the Standard, it is necessary to recommend a method(s) for the provision. However, if there is no specification or labelling requirement, there is no need to select methods of analysis.**

Governments and Observers wishing to submit comments on methods of analysis listed below should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex standards and related texts including the Procedural Manual are available on the Codex website at: <http://www.codexalimentarius.net/web/>).

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Alcohol insoluble solids (canned green peas)	AOAC 938.10	Gravimetry	The CCPFV did not identify any provision in the Standard to justify the introduction of this method. As the specific Annexes were not discussed at the meeting, Codex Members and Observers are invited to comment as indicated in the box above.	<b>[DELETE]</b>	I	E
Calcium (canned green peas)	AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	AOAC 968.31 is already contained in CX/STAN 234/1999 for canned green peas . The CCMAS endorsed AOAC 968.31 as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970.		II	E
Drained weight	AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving Gravimetry	The CCMAS endorsed AOAC 968.30 as a general method for the determination of drained weight in processed fruits and vegetables. This method replaces CAC/RM 36/1970.		I	
Fill of containers	CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	The CCMAS retained the method while deleting the references to “metal containers” and refer to ISO 90:1:1986 for determination of water capacity in metal containers.	ADD	I	

Provision	Method	Principle	Note	Recommendation CCPFV to CCMAS	Type	Status
Mineral impurities (sand)	AOAC 971.33 (Codex General Method for processed fruits and vegetables)	Gravimetry	<p>The CCMAS endorsed AOAC 971.33 as a general method for the determination of mineral impurities in jams, jellies and marmalades and processed tomato concentrates.</p> <p>This method replaces CAC/RM 49/1972.</p> <p>The CCMAS invited CCPFV to consider whether ISO 762:1982 should be replaced by <b>AOAC 971.33</b> as Type I method for the determination of mineral impurities in canned palmito or canned vegetables or as a general method for processed fruits &amp; vegetables.</p>	<b>REPLACE</b> at the suggestion of CCMAS	I	
Total solids (canned mature processed peas)	AOAC 964.22 Level $\geq$ 19.5% of the weight of distilled water at 20°C which the sealed container will hold when completely filled	Vacuum oven	<p>AOAC 964.22 is already contained in CX/STAN 234/1999 for mature processed peas.</p> <p>The CCMAS endorsed AOAC 920.151 as a general method for the determination of total solids in processed fruits and vegetables.</p> <p>The CCMAS invited CCPFV to consider whether AOAC 964.22 should be replaced by <b>AOAC 920.151</b> (Type I) as a general method for the determination of total solids in processed fruits and vegetables.</p> <p>The CCPFV did not identify any provision in the Standard to justify the introduction of this method. As the specific Annexes were not discussed at the meeting, Codex Members and Observers are invited to comment as indicated in the box above.</p>	<b>[DELETE]</b>	I	E



**The CCMAS advised the commodity committees to consider replacing Codex Methods of Analysis and Sampling (CAC/RMs) with more modern methods as appropriate and to replace the CAC/RM numbers with the original literature references, if possible.**

The Committee further recommended that when the original reference of a CAC/RM was available, this reference should replace the CAC/RM number, and when the original reference was not available, the full text of the method should be included in the *Codex Alimentarius* and the CAC/RM number reference deleted.

The Codex Alimentarius Commission agreed to the abolition of the CAC/RM Numbering System as recommended by CCMAS.

Codex Members and Observers are invited to determine:

- (a) whether the CAC/RMs listed below should be deleted as not necessary due to the absence of provisions in the standards or
- (b) whether they have a corresponding more modern method e.g. AOAC, ISO, etc. and if not
- (c) whether the current provisions in the methods need to be updated.

**CAC/RM 48-1972**  
**METHOD FOR DISTINGUISHING TYPE OF PEAS**

**1 DEFINITION**

This method is based on differentiation between starch granules of the wrinkled-seeded types and starch granules of the smooth-seeded types.

**2 REAGENTS AND MATERIALS**

- 2.1 Compound microscope - 100 to 250 magnification.  
- Phase contrast.
- 2.2 Microscope slide and cover glass.
- 2.3 Spatula.
- 2.4 Ethanol - 95% v/v.
- 2.5 Glycerine.

**3 PROCEDURE**

**3.1 Preparing mount**

- 3.1.1 Remove a small portion of the endosperm and place on glass slide;
- 3.1.2 Using a spatula grind the material with 95% v/v ethanol;
- 3.1.3 Add a drop of glycerine, place cover glass on material and examine under microscope.

**3.2 Identification**

Starch granules of the wrinkled-seeded types (garden peas, sweet) show up as clear cut, well defined, generally spherical particles.

Starch granules of the smooth-seeded types (round, early, Continental) show up as an amorphous mass with no well defined geometric shape.

**CAC/RM 45-1972**  
**DETERMINATION OF PROPER FILL IN LIEU OF DRAINED WEIGHT**  
**(for canned peas only)**

**1 DEFINITION**

The method for determination of proper fill is an alternative method for determining a fill of canned peas in lieu of the drained weight.

**2 PROCEDURE**

2.1 Pour the contents of one container into an empty container of the same kind and size and return the contents completely to its original container.

2.2 Level off the contents thus returned irrespective of the quantity of liquid 15 seconds after the contents are so returned.

**3 EXPRESSION OF RESULTS**

3.1 A container with lid attached by double seam shall be considered to be completely filled when it is filled to the level 4.8 mm vertical distance below the top of the double seam.

3.2 A glass container shall be considered to be completely filled when it is filled to the level 12.7 mm vertical distance below the top of the container.

**CAC/RM 39-1970  
TOUGH STRING TEST**

**1 DEFINITION**

A tough string is a string that will support the weight of 250 g for five seconds or longer when tested in accordance with the procedure described below.

**2 PRINCIPLE**

Strings are removed from individual pods, fastened through a clamp assembly weighing 250 g, and hung so that the string supports the entire weight. If the string supports the weight for five seconds or more it is considered a tough string.

**3 APPARATUS**

**3.1 Weighted clamp**

Use battery clamp (with teeth filed off or turned back), spring operated clothes pin, or binder clip which presents a flat clamping surface. Attach weight so that entire assembly of weight and clamp weighs 250 g. See Figure 1. A bag containing lead pellets is convenient as a weight.

**4 PROCEDURE**

4.1 From the drained product select a representative sample of not less than 285 g. Record the weight of this test sample.

4.2 Break the individual bean units and set aside those that show evidence of tough strings. Remove the strings from the pods and retain the pod material for weighing.

4.3 Fasten the clamp assembly to one end of the string. Grasp the other end of the string with the fingers (a cloth may be used to aid in holding the string) and lift gently.

4.4 If the string supports the 250 g assembly for at least five seconds consider the bean unit as containing tough string. If the string breaks in less than five seconds, retest the broken parts that are 13 mm or longer to determine if such portions are tough.

4.5 Weigh the bean units which contain tough strings.

**5 CALCULATION AND EXPRESSION OF RESULTS**

$$\% \text{ m/m pods containing tough strings} = \frac{\text{pods containing tough strings (g)}}{\text{test sample (g)}} \times 100$$

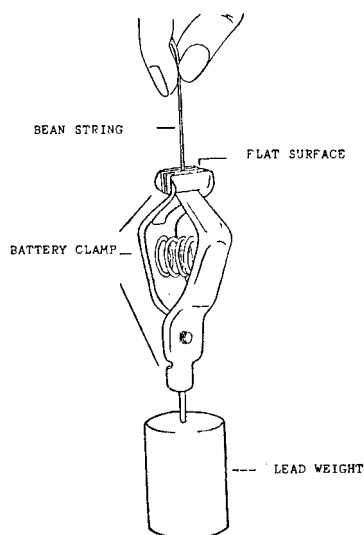


Figure 1 - Tough String Tester for Green or Wax Beans

**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)**

<b>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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)**

<b>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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

## PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES

### CARROTS

#### (AT STEP 3)

## 1 DESCRIPTION

### 1.1 PRODUCT DEFINITION

The name “carrots” stands for the product prepared using clean and sound roots of varieties (cultivars) of carrots complying with the characteristics of the species *Daucus carota* L., trimmed of their tops, green extremities and peel.

### 1.2 STYLES

#### (1) **Whole:**

- (a) **Conical or cylindrical cultivars** (for example, Chantenay and Amsterdam varieties): carrots, which, after processing, more or less keep their initial shape. The largest diameter of carrots, measured at right angles to the longitudinal axis, shall not exceed 50 mm. The ratio between the diameters of the biggest and smallest carrots shall not be greater than 3:1.
- (b) **Spherical cultivars** (“Paris’ carrots”): carrots that have reached full maturity, of rounded shape, whose largest diameter in each direction shall not exceed 45 mm.

#### (2) **Baby whole carrots:**

- (a) **Conical or cylindrical cultivars:** carrots whose diameter does not exceed 23 mm and whose length does not exceed 100 mm.
- (b) **Spherical cultivars:** whole carrots whose diameter in each direction does not exceed 27 mm.

#### (3) **Halves:** Carrots cut along the longitudinal axis into two roughly equal parts.

#### (4) **Quarters:** Carrots cut into four roughly equal parts by slicing in two points perpendicularly to the longitudinal axis.

#### (5) **Lengthways portions:** Carrots sliced lengthways, in a straight or wavy manner, into four or more pieces of roughly equal dimensions, not less than 20 mm long and not less than 5 mm in width measured at maximum width.

#### (6) **Rounds or Sliced:** Carrots cut, in a straight or wavy manner, perpendicularly to the longitudinal axis, in rounds with a maximum thickness of 10 mm and a maximum diameter of 50 mm.

#### (7) **Diced:** Carrots cut into cubes with an approximately 12 mm sides at most.

#### (8) **Strips, Julienne, French style, or Shoestring:** Carrots cut lengthways, in a straight or wavy manner, into sticks. The section of the sticks should not exceed 5 mm (measured at the longest edges of the section).

#### (9) **Double-size diced:** carrots cut in regular pieces, of a square section, whose longer dimension is roughly twice the shorter, which should not exceed 12.5 mm.

#### (10) **Chunks or Pieces:** Whole carrots cut widthways into sections of a thickness above 10 mm, or whole carrots cut in two and sliced widthways into sections, or else carrot sections whose shape or grade may be irregular and whose size is greater than that of rounds or double-size diced.

#### (11) **Finger cuts:** Pieces of whole carrots, of at least 40 mm length and a diameter lower than or equal to 23 mm.

## 2 ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 2.1 QUALITY CRITERIA

#### 2.1.1 Uniformity

- (1) **Length:** for carrots defined in 1.2 (1) and (2) at least 75% of the drained weight shall not deviate by more than 5 mm from the average carrot length, and at least 90% of the net drained weight shall not deviate by more than 10 mm from the average carrot length.
- (2) **Diameter and other measurements:** there is a 10% tolerance with respect to the maximum dimension.

- (3) Any container or sampling unit that exceeds the tolerances set forth in (1) and (2) above should be considered as a “defective”.

### 2.1.2 Definition of Defects and Allowances

Whole Carrots and Whole Young Carrots, Carrots in Halves, in Quarters, Strips, Finger Cuts.

Defects	Definition	Tolerances as a percentage of the drained product weight
(1) Blemished carrots	blemished or faded zones with a diameter above 5 mm.	20
(2) Mechanical damage	carrots that are crushed or grazed during canning.	10
(3) Malformations	deformations or fissures that appeared during growth.	20
(4) Unpeeled parts	30% or more of the surface is unpeeled.	20
(5) Fibrous	carrots that are hard or woody owing to their fibrousness.	10
(6) Black or dark green collar	collar with a ring that is one millimetre thick over more than half its circumference.	20
(7) Foreign vegetal matter	vegetal substance from the carrot or any other [innocuous] vegetal matter.	1 piece per 1000 g of total content in the container

The total amount of defects from (1) to (6) shall not exceed [35%] [15%] of the drained product weight.

Defects (3), (4) and (6) do not apply to diced, rounds, strips, double-size diced; for these presentations the total amount of defects (1), (2) and (5) shall not exceed [25%] [10%] of the drained product weight.

## 3 WEIGHTS AND MEASURES

### 3.1 MINIMUM DRAINED WEIGHT

Styles	Minimum drained weight (%)
(1) Whole carrots	56.5 (average diameter > 22 mm) [62.5] [56.5] (average diameter < 22 mm)
(2) Halves, Baby whole carrots	62.5
(3) Lengthways portions	52.0
(4) Diced, double-size diced	62.5
(5) Strips	56.5
(6) Quarters, pieces, rounds	56.5
(7) Chunk or pieces	56.5
(8) Finger cuts	62.5

**PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES**  
**GREEN BEANS OR WAX BEANS**  
**(AT STEP 3)**

**1 DESCRIPTION**

**1.1 PRODUCT DEFINITION**

The names “Green beans” or “wax beans” stand for the products prepared from the pods (or runners), incompletely ripe and with cut off ends, of *Phaseolus vulgaris* L., *Phaseolus coccineas* L., or *Phaseolus multiflorus* LMK. Beans of distinct varietal groups with respect to shape may be designated as:

- (1) **Round:** beans having a width not greater than 1 ½ times the thickness of the bean.
- (2) **Flat:** beans having a width greater than 1 ½ times the thickness of the bean

**1.2 STYLES**

Green beans and wax beans come in the following shapes and sizes:

- (1) **Whole:** whole pods of any length.
- (2) **Cut/broken:** pieces cut widthways with respect to the longitudinal axis; [approximately uniform pieces of 20 mm] [no less than 20 mm] [at most 50 mm and at least 10 mm].
- (3) **Short cuts:** pieces cut widthways of which 75%, by count, or more are less than 20 mm long.
- (4) **Shoestring, Sliced lengthwise, French style:** pieces in strips, of a thickness under 6.5 mm, of which the majority is cut slantwise or lengthways.
- (5) **Diagonal cut:** approximately 45 degrees to the longitudinal.

Green beans and wax beans defined in (1) may be graded. If that is the case, they are graded in accordance with the following table. The grade is determined by measuring the diameter on the main axis at the widest point from one suture to the other.

Grading Requirements for Beans (French Beans or Wax Beans)

Categories	Grading Criterion (mm)	Maximum percentage (m/m of non conforming beans)
(1) Extra small	6.5	[10%] [8%]
(2) Very small	8.0	[10%] [8%]
(3) Small	9.0	[15%] [8%]
(4) Medium	10.5	[25%] [8%]
(5) Large	Out of grade	
(6) Not screened	Not screened (*)	Natural breakdown of the size beans (*)

(\*) Not screened: beans in the natural proportion of size after cleaning, without the removal or addition of screened beans.

**2 ESSENTIAL COMPOSITION AND QUALITY FACTORS**

**2.1 QUALITY CRITERIA**

**2.1.1 Definition of Defects**

- (1) **Damaged pods:** Beans are deemed to be damaged if they have pods presenting rust, blemishes greater than 5 mm in diameter, spots, or — upon organoleptic examination — whose skin has grown thick, thereby diminishing the food value.
- (2) **Harmless plant material:** Parts of the plant (bean) and innocuous foreign vegetal matter are considered as vegetal debris.
- (3) **Pieces of beans:** Pieces of beans whose length is lower than 20 mm (for cans of whole beans).



- (4) **Pods without ends removed:** Beans whose attachment is still present (beans where only the protuberance remains where the peduncle was attached are not considered as pods without ends removed).

### 2.1.2 Defects and Allowances

The following limitations of defects are expressed in percentages, and related to the drained weight of the product.

When tested in accordance with the appropriate sampling plan with an AQL of 6.5, canned beans shall be free of defects to the extent indicated below:

#### Proposal 1

Category	Stringy pods	Pods without ends removed	Defective pods	Bean pieces	Harmless Plant material	Aggregate defects
(1) Extra small French beans	2	3	3	3	1	[8] [4]
(2) Very small French beans	3	3	3	3	3	[10] [6]
(3) Small French beans	3	3	3	3	3	[10] [8]
(4) Small wax beans	3	3	3	3	3	[10] [8]
(5) Medium French beans	3	3	4	4	4	[15] [10]
(6) Medium wax beans	3	3	4	4	4	[15] [10]
(7) Green beans	3	3	5	5	5	20
(8) Wax beans	3	3	5	5	5	20

#### Proposal 2

Defects	Tolerances (% m/m)
(1) Stringy pods	3
(2) Pods without ends removed	3
(3) Defective pods	4
(4) Bean pieces	4
(5) Harmless plant material	4
(6) AGREGATE DEFECTS	15

## 3 WEIGHTS AND MEASURES

### 3.1 MINIMUM DRAINED WEIGHT

Styles	Minimum drained weight (%)
(1) Whole	[50] [52]
(2) Other presentations, except strips	[54] [52]
(3) Strips	50

## PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES

### ASPARAGUS

#### (AT STEP 3)

## 1 DESCRIPTION

### 1.1 PRODUCT DEFINITION

The name “asparagus” stands for the product prepared from the tender portions of peeled or unpeeled stems of varieties of asparagus complying with the characteristics of *Asparagus officinalis* L.

### 1.2 STYLES

1.2.1 Asparagus comes in the following shapes and sizes:

**[Long shoots or long spears]** or **[asparagus]** or **[whole spears]**: tip and adjoining part of the spear measuring at most 18 cm and at least 12 cm in length.

**[Shoots or spears]** or **[short asparagus]** or **[whole short spears]**: tip and adjoining part of the spear measuring at most 12 cm and at least 7 cm in length.

**Asparagus tips**: upper extremity (bud) and adjoining part of spears measuring at most [10.5 cm] [7 cm] and at least [4 cm] [3 cm] in length.

**Cut asparagus**: spears cut widthways into sections measuring at most 7 cm and at least 2 cm in length.

**Cut asparagus with tips**: the percentage of tips shall be equal to or greater than [15%] [20%] of the drained weight.

**Cut asparagus without tips**: the occasional presence of tips is allowed.

1.2.2 Asparagus are canned as follows in terms of their colour:

**White asparagus**: white, cream or yellowish spears; [no more than 20% in number of spears may have violet, green, light green or yellowish green tips].

**White asparagus with violet or green tips**: white, cream or yellowish white asparagus may have violet, green, light green or yellowish green tips, and these colours may also apply to the adjoining region, but no more than 25% in number of the units may present these colours over more than [20%] [50%] of their length.

**Green asparagus**: the units are green, light green or yellowish green; no more than 20% in number of the units may present a white, cream or yellowish white colour in the lower part of the spear over more than [20%] [50%] of their length.

**Mixed**: mixes of white, cream, yellowish white, violet, green, light green or yellowish green units.

Asparagus may be designated in terms of their size as indicated in the Table below. The size corresponds to the maximum diameter of the thickest part of the unit measured perpendicularly to the longitudinal axis of the unit.

Styles	Peeled Asparagus	Unpeeled Asparagus
(1) Small	Up to 8 mm	Up to 10 mm
(2) Medium	From above 8 mm to 13 mm inclusive	From above 10 mm to 15 mm inclusive
(3) Large	From above 13 mm to 18 mm inclusive	From above 15 mm to 20 mm inclusive
(4) Very large	More than 18 mm	More than 20 mm
(5) Blend of sizes or assorted sizes - a mixture of two or more single sizes		

## 2 ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 2.1 QUALITY CRITERIA

#### 2.1.1 Uniformity

**Length**: the specifications required in Section 1.2 regarding the types of presentation of asparagus are met when:

The predominant length of the units in the sample falls within the designated style classification; and

The length of the units is reasonably uniform. By “reasonably uniform”, on the basis of the average of the samples, the following is meant:

Asparagus (or long asparagus), short asparagus and asparagus tips: at least 75% of the number of units do not deviate by more than 1 cm from the most frequent length and at least 90% of the number of units do not deviate by more than 2 cm from the most frequent length.

Asparagus cut with tips or without tips: at least 75% of the number of units do not deviate by more than 1 cm from the most frequent length and at least 90% of the number of units do not deviate by more than 2 cm from the most frequent length.

**Diameter**: compliance with respect to the individual size names.

When a product is said to be, presented or sold as complying with the names of the individual sizes of Section 1.2, the sampling unit should comply with the specified diameter for each individual grade, provided no more than 25% in number of all the units contained in the container belong to the group (or groups) of adjacent sizes.

Any container or sampling unit, which exceeds the tolerance of 25% laid down above, should be considered as a “defective” as far as sizing is concerned.

### 2.1.2 Definition of Defects and Allowances

Defects	Definition	Maximum
Asparagus tips and other parts crushed	broken or crushed pieces to the extent that they seriously impair the product aspect and comprising fragments under 1 cm in length.	The product should be reasonably free of such defects.
Foreign matter	such as sand, soil or substances from soil	The product should be practically free of such defects.
Asparagus with skin (only in the case of asparagus presented peeled)	units comprising unpeeled zones which seriously impair the aspect or the edibility of the product.	10% in number
Hollow asparagus	hollow units to the extent that they seriously impair the product aspect and fibrous, tough asparagus.	[10% or 5 % in number] for the defect (4) <b>or</b> [15% in number for hollow asparagus, and 10% for fibrous asparagus]
Deformed asparagus	comprising spears or tips that are very curved, or any unit seriously impaired by splitting into two or any other malformation and open tips.	10% in number
Damaged asparagus	by a colour defect, a mechanical lesion, a disease, or damaged by any other means to the extent that the aspect or the edibility of the product is seriously impaired.	[10%] [15%] in number
Total of all the defects described in (3), (4), (5), (6), for the following types of presentation:		
<b>Defects and Allowances</b>	<b>Maximum</b>	
(1) Asparagus	15% in number	
(2) Short Asparagus	15% in number	
(3) Asparagus tips	15% in number	
(4) Asparagus cut with tips	20% in number	
(5) Cut Asparagus	25% in number	

### 3 WEIGHTS AND MEASURES

#### 3.1 MINIMUM DRAINED WEIGHT

Styles	Minimum drained weight (%)	
	Peeled	Unpeeled
(1) White asparagus Short white asparagus	59	57
(2) Green asparagus	54	57
(3) Other types of presentation	58	55

### 4 LABELLING

4.1 For asparagus, colour has to be included into the styles defined in Section 1.2. For white asparagus, the words “not peeled” shall be declared if that is the case.

**PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES**

**GREEN PEAS**

**(AT STEP 3)**

**1 DESCRIPTION**

**1.1 PRODUCT DEFINITION**

The name “green peas” stands for the product prepared from immature (green) seeds of *Pisum sativum* L. peas, of the smooth, wrinkled varieties, or other types (crosses or hybrids of the wrinkled of round seeded varieties).

When the peas are of sweet green wrinkled varieties or hybrids having similar characteristics, the name is “sweet green peas”.

**1.2 STYLES**

Green peas may be designated in terms of their size as follows:

Names	Diameter of the circular perforations of the corresponding screen (these perforations are those through which raw grains must pass)
<b>Green Peas</b>	
(1) Extra small green peas	7.5 mm
(2) Very small green peas	8.2 mm
(3) Small green peas	8.75 mm
(4) Medium green peas	9.3 mm
(5) Large green peas	out of grade
<b>Sweet Green Peas</b>	
(1) Extra small sweet green peas	7.5 mm
(2) Very small sweet green peas	8.2 mm
(3) Small sweet green peas	9.3 mm
(4) Medium sweet green peas	10.2 mm
(5) Large sweet green peas	Out of grade
(6) [Sweet] green peas*	Not screened

Green peas may be canned with mixes from different screens subject to the mandatory statement on the label of the percentage in weight coming from the different screens according to Section 3.1.

\* **Sweet garden peas:** garden peas of wrinkled varieties, in the natural proportion of sizes after beating and cleaning, without the removal or addition of screened peas.

**2 ESSENTIAL COMPOSITION AND QUALITY FACTORS**

**2.1 QUALITY CRITERIA**

**2.1.1 Definition of Defects and Allowances**

Canned peas may contain a slight amount of sediment and shall be reasonably free from defects within the limits set forth as follows:

<b>Defects</b>	<b>Definition</b>	<b>Maximum Limits</b> (based on the weight of drained peas)
(1) Blemished peas	consisting of peas which are slightly stained or spotted.	[5% m/m] [3% m/m]
(2) Seriously blemished peas	consisting of peas which are spotted, discoloured or other-wise blemished (including worm-eaten peas) to the extent that the appearance or eating quality is seriously affected.	1% m/m
(3) Pea fragments	consisting of portions of peas; separated or individual cotyledons; crushed, partial, or broken cotyledons; and loose skins; but not including entire intact peas with skins detached.	[10% m/m] [5% m/m]
(4) Yellow peas	entire pea is substantially yellow and is not a so-called "blond" pea which is very pale in colour.	2% m/m
(5) Extraneous plant material	consisting of any vine or leaf or pod material from the pea plant, or other harmless plant material not purposely added as an ingredient.	0.5% m/m
Total of the foregoing defects (1), (2), (3), (4), (5)		[12% m/m] [10% m/m]

### 3 WEIGHTS AND MEASURES

#### 3.1 MINIMUM DRAINED WEIGHT

<b>Styles</b>	<b>Minimum drained weight (%)</b>
(1) Extra small	66%
(2) Very small	
(3) Small	
(4) Medium	62.5%
(5) Large	
(6) Not graded	60%

When green peas are not graded, drained weight should not be less than 62.5%.

## PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES

### PALM

#### (AT STEP 3)

## 1 DESCRIPTION

### [1.1 PRODUCT DEFINITION

The name “palm hearts” stands for the product prepared from the terminal buds of wild palms (upper and inferior meristems), where young stems rise, trimmed of fibrous parts. The product has a heterogeneous structure. These wild palms have the characteristics of *Euterpe edulis* (single stem) or *Euterpe oleracea* (several stems in a clump) and with other species of wild palms fit for human consumption. The name “cultivated palm” correspond to the central part of the stem of young and sound shoots, rid of fibrous parts, of the cultivated palm of varieties derived from *Bactris gasipaes*, or other species of cultivated palm fit for human consumption.]

### 1.2 STYLES

Palm is presented in the following table:

- (1) **“Palm hearts”**: correspond to the terminal bud of the wild palm and the upper part of the stem, cut widthways into pieces having a minimum length of 40 mm and a maximum length depending on the size of the container.
- (2) **“Palm shoots”** or **“shoots (or hearts) of cultivated palm”**: correspond to the young shoots of the cultivated palm and come from the central part of the stem cut widthways into pieces having a minimum length of 40 mm and a maximum length depending on the size of the container.
- (3) **“Palm stem pieces”**: correspond to the conical part of the stem, from young shoots of cultivated palm, closest to the root, cut widthways into pieces having a minimum length of 40 mm and a maximum length depending on the size of the container.
- (4) **“Palm tips”**: correspond to the upper part of the stem from young shoots of cultivated palm, cut widthways into pieces having a minimum length of 40 mm and a maximum length depending on the size of the container.
- (5) **“Rounds”** of **“palm hearts”** or of **“palm shoots”** or of **“palm shoots (or hearts) of cultivated palm”**, or of **“palm stems”** of cultivated palm, or of **“palm tips”** of cultivated palm: as defined in (1), (2), (3), (4), correspond to these products cut widthways into pieces having a minimum thickness of 25 mm and a maximum thickness of 40 mm.
- (6) **“Slices”** of **“palm hearts”** or of **“palm shoots”** or of **“palm shoots (or hearts) of cultivated palm”**, or of **“palm stems”** of cultivated palm, or of **“palm tips”** of cultivated palm: as defined in (1), (2), (3), (4), correspond to these products cut into pieces having a minimum thickness of 3 mm and a maximum thickness of 25 mm.

“Palm shoots” or “palm shoots (or hearts) of cultivated palms”, “palm stem pieces” and “palm tips” of cultivated palm may be graded as follows in terms of their diameter.

Size Designations	Criteria
(1) Small	10 mm to 25 mm inclusive
(2) Medium	More then 25 mm to 35 mm inclusive
(3) Large	More then 35 mm to 50 mm inclusive
(4) Very large	More then 50 mm
(5) Mixed sizes	Mix of 2 sizes or more

Thickness is measured [at the median part] [the thickest part] of the unit perpendicularly to the longitudinal axis.

## 2 ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 2.1 QUALITY CRITERIA

#### 2.1.1 Uniformity

- (1) **Length:** the specifications laid down in Section 1.2 concerning the types of presentation of palm are met when:
- The most frequent length of the sample units remains within the limits laid down for the category of type of presentation.
  - The length of units is reasonably uniform. On the basis of the average of samples and subject to compliance with the provisions of Section 1.2, “reasonably uniform” means that the gap between the length of all the units and the predominant length does not exceed approximately  $\pm[5] \pm[10]$  mm and the gap between the thickness of all the units and the predominant thickness does not exceed [5mm] [10mm].
- (2) **Diameter:** When a product is said to be, presented or sold as complying with the individual grade provisions laid down in Section 1.2 (table), the sampling unit or the container is considered as complying with the specified diameter for each individual size provided when no more than [30%] [20%] in number for products from cultivated palms, belong to the group (or groups) of adjacent sizes.

#### 2.1.2 Definition of Defects and Allowances

Defects	Definition	Weight Percentage with respect to the drained weight product
(1) Defective texture	hard or fibrous and/or excessively soft texture, which seriously impairs product edibility.	10
(2) Mineral impurities	such as sand, gravel or other soil elements.	0.1
(3) Damaged units	units presenting colour defects, scars and grazes, abrasions and other imperfections of the same type which seriously impair product appearance.	15
(4) Mechanical damage	broken or split units, fragments or detached pieces, which seriously impair product appearance.	10
(5) Abnormal colour	colour considerably different from the typical colour of the product.	10
(6) Physiological defects	or “palm hearts” and “palm hearts in rounds”, units with palm tree stem apical meristems	10
TOTAL amount of defects for palm hearts, palm shoots or shoots of cultivated palm, palm stem pieces and palm tips.		20
TOTAL amount for other styles		25

## 3 WEIGHTS AND MEASURES

### 3.1 MINIMUM DRAINED WEIGHT

Styles	Minimum drained weight(%)
Hearts, shoots (or palm), stems, palm tips	[58]
Other styles	59



**PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES**  
**MATURE PROCESSED PEAS**  
**(AT STEP 3)**

**1 DESCRIPTION**

**1.1 PRODUCT DEFINITION**

The name “mature processed peas” stands for the product prepared using clean, sound, whole, threshed, and dried grains of the species *Pisum sativum* L., which has undergone soaking, but excluding the macrosorum sub-variety.

**1.2 DEFINITION OF DEFECTS AND ALLOWANCES**

Defects	Definition	Maximum Limits in drained weight (%)
(1) Blemished peas	peas with slight blemishes or spots.	10 m/m
(2) Seriously blemished peas	peas with spots and colour defects or otherwise blemished to the extent that their aspect or edibility are seriously affected; worm-eaten peas come under this category.	2 m/m
(3) Pea fragments	fractions of peas such as separated or detached cotyledons, crushed cotyledons partially or totally broken, and detached skins.	10 m/m
(4) Foreign vegetal matter:	any fragment of tendril, peduncle, leaf or pod and any other foreign matter.	0.5 m/m

The total of the defects (1), (2), (3) and (4) should not exceed [15% m/m] [20% m/m] by weight.

**2 LABELLING**

2.1 When colour of mature processed peas is not green, colour of peas should be declared (for example: brown peas or yellow peas); canned processed peas may be named “mature processed peas” or “processed peas” or “mature cooked peas”.

## PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES

### SWEET CORN

#### (AT STEP 3)

## 1 DESCRIPTION

### 1.1 PRODUCT DEFINITION

The name “sweet corn” stands for the product prepared from clean and sound grains of sweet corn, of white or yellow colour, complying with the characteristics of *Zea mays saccharata* L.

Whole grains packaged with or without a liquid packing media.

**Creamed corn:** whole or partially whole cut kernels packed in a creamy component from the corn kernels, and other liquid or other ingredients, in accordance with the Section 2.1, so as to form a product of creamy consistency

## 2 ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 2.1 COMPOSITION

#### 2.1.1 Other Permitted Ingredients

(a) [native starch from creamed corn]

### 2.2 QUALITY CRITERIA

#### 2.2.1 Colour, Flavour and Texture

Creamed corn should present a fine but not excessively fluid consistency, or which may be dense and thick but not excessively dry or pasty, so that after two minutes a moderate but not excessive separation of free liquid can be seen.

#### 2.2.2 Definition of Defects and Allowances

Sweet corn grains should have a reasonably tender texture, offering some resistance to chewing yet without being hard or tough.

The finished product shall be practically free of fragments of cobs, silks, shucks, grains with an abnormal colour or a malformation, foreign vegetal matter and other defects not expressly mentioned, within the limits set forth as follows:

Defects	Definition	Tolerances m/m (%)
(1) Foreign vegetal matter	[Fragments of cobs, awns(or silks), husks, foreign grains or a different variety of sweet corn.] <u>OR</u>	[0.2] [0.5]
	[Fragments of cobs, husks, foreign grains or a different variety of sweet corn]	[0.1]
	[Awns(or silks)]	[0.1]
(2) Blemished grains	Grains affected by a lesion due to insects or diseases, or presenting an abnormal colour.	1
(3) Torn grains	Grains keeping a piece of cob or hard matter adhering to them.	2
(4) Split grains or empty skins	Entirely open grains.	[5] [10]

Any unit where the proportion of defects exceeds the tolerances laid down above shall be considered as a “defective”.

**3 WEIGHTS AND MEASURES**

**3.1 MINIMUM DRAINED WEIGHT**

<b>Styles</b>	<b>Minimum drained weight (%)</b>
With a liquid packing medium	66 [61]
Vacuum packaged or without a liquid packing medium	67

**4 LABELLING**

4.1 For sweet corn, the word “white” is declared part of the name when white variety is used.

**PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES**  
**BABY CORN OR YOUNG CORN**  
**(AT STEP 3)**

**1 DESCRIPTION**

**1.1 PRODUCT DEFINITION**

The name “baby corn” or “young corn” stands for the product prepared from selected young corn cob without pollination of commercial varieties conforming to the characteristics of *Zea mays* L., from which silk and husk are removed [OR canned vegetables for canned baby corn].

**1.2 STYLES**

Baby corn comes in the following styles:

- (1) **Whole:** whole cob of baby corn from which silk, husk and shank are removed.
- (2) **Cut Corn:** baby corn with diameter not more than 25 mm cut crosswise into section having a length between 1,5 and 4 cm.

Canned-baby corn in whole style may be designated according to size in the following manner.

<b>Cob Size</b>	<b>Length (cm)</b>	<b>Diameter (cm)</b>
(1) Extra large	10 – 13	>1.8 [1.8 - 2.5]
(2) Large	8 – 10	1.0 - 2.0
(3) Medium	6 – 9	1.0 - 1.8
(4) Small	4 – 7	< 1.5

**2 ESSENTIAL COMPOSITION AND QUALITY FACTORS**

**2.1 QUALITY CRITERIA**

**2.1.1 Uniformity**

For every size of whole baby corn, the length of the longest cob should not be more than 3 cm longer than the length of the shortest cob in each container.

Any container or sampling unit that exceeds the tolerances laid down in paragraph (1) should be considered as a “defective”.

**2.1.2 Definition of Defects and Allowances**

**2.1.2.1 Cut Baby Corn**

<b>Defects</b>	<b>Maximum limits in drained weight (sample size 1 kg)</b>
(1) Over/under size	5%
(2) Discolour	5%
(3) Peel	5%
(4) Silk	20 cm of broken silks put together
(5) TOTAL DEFECTS without (4)	[20%] [15%]

2.1.2.2 *Whole Baby Corn*

<b>Defects</b>	<b>Definition</b>	<b>Maximum limit in drained weight (simple size 1 kg)</b>
(1) Discolour		5%
(2) Irregular shape		5%
(3) Young husk and shank		10%
(4) Silk broken from the cob		20 cm of broken 20 silks put together
(5) Brown tip		5%
(6) Broken tip with the diameter larger than 5 mm	broken tip means tips of the cobs that are broken after packing. When these pieces are put together, the cob shape will be formed.	5%
(7) Damage resulting from cutting		10%
(8) Broken pieces	broken pieces means the portions of broken pieces that cannot be put together to form the cob shape.	2%
TOTAL DEFECTS without (4)		25%

3 **WEIGHTS AND MEASURES**

3.1 **MINIMUM DRAINED WEIGHT**

The minimum drained weight of whole baby corn and cut baby corn should not be less than 45%.

**PROPOSED DRAFT CODEX GUIDELINES ON PACKING MEDIA  
FOR CANNED VEGETABLES**

**(AT STEP 3)**

**1 SCOPE**

The following guidelines describe the composition and labelling requirements for packing media for use with canned vegetables.

**2 COMPOSITION AND DESIGNATIONS TO BE USED IN LABELLING**

2.1 Any of the following packing media may be used.

2.2 **Water:** eventually with added salt.

2.3 Water with added salt, and/or sugars and/or other sweeteners such as honey, or without added sugars, with or without aromatics plants, spices or extracts thereof, seasoning, regular or concentrated fruit juice, oil or vinegar. These ingredients should not alter in any way the flavour characteristic of the product.

2.4 **“Vacuum packed”:** the product is packaged without packing media, or with a packing media that does not exceed 20% of the product’s net weight and when the container is sealed in such conditions as to generate the following minimum internal pressure at 20°C :

(a) of [500 millibars] for containers of a capacity of 2550 ml or less.

(b) of [300 millibars] for containers of a capacity higher than 2550 ml.

2.5 The name of the product shall include the indication of the packing media as set out in Sections 2.2 and 2.4.

2.6 If an added ingredient or any seasoning, as set out in Section 2.3, does alter the flavour characteristic of the product, the name of the said ingredient should be affixed to the commercial designation of the product or in close proximity.

**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 from .....<sup>1</sup>;
- (b) [packed (with water or other) (*with or without*) a suitable liquid packing medium as indicated in Section 3.1.2]<sup>2</sup>;
- (c) [processed (by heat), in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage]<sup>2</sup>.
- (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 liquid<sup>3</sup>
- (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

<sup>1</sup> {Additional provisions may be made depending on the nature of produce}

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

<sup>3</sup> Codex Guidelines on 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) (when appropriate)*]<sup>2</sup> as defined in Section 3.1.2.

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 ##-###) (as appropriate).

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. or

[Common name of the product] *should have colour, flavour, odour and 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 <sup>2</sup> /mm <sup>2</sup> 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)]<sup>2</sup>, 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 3.3, 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) .....<sup>1</sup>

[These acceptance criteria do not apply to non-retail containers.]<sup>2</sup>

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.

.....<sup>1,4</sup>

[5.1.2 In order to consider the concentration of the product, the determination of the maximum pesticide residue limits shall take into account the natural total soluble solids, the reference value being [numerical value] for fresh fruit/vegetable]<sup>2</sup>.

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.

.....<sup>1,5</sup>

<sup>4</sup> {Subject to endorsement by the Codex Committee on Pesticide Residues}

[5.2.2 In order to consider the concentration of the product, the determination of the maximum levels for contaminants shall take into account the natural total soluble solids, the reference value being [numerical value] for fresh fruit/vegetable]<sup>2</sup>.

## 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)*]<sup>2</sup> 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.]<sup>2</sup>

1,6

## 7 WEIGHTS AND MEASURES<sup>[7]</sup><sup>2</sup>

### 7.1 FILL OF CONTAINER

#### 7.1.1 Minimum Fill

The container should be well filled with the product [including packing medium (when appropriate)]<sup>2</sup> 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 following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled<sup>8</sup>.

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

#### 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.

<sup>5</sup> {Subject to endorsement by the Codex Committee on Contaminants}

<sup>6</sup> {Subject to endorsement by the Codex Committee on Food Hygiene}

<sup>7</sup> The provisions in this Section do not apply to non-retail containers.

<sup>8</sup> **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 LABELLING

8.1 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:

### 8.2 NAME OF THE PRODUCT

8.2.1 The name of the product shall be [Common name of the product or common name of the fruit/vegetable]

1,9

8.2.2 **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.

[8.2.3 If an added ingredient, as defined in Section 3.1.3, 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.]<sup>2</sup>

### 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 SAMPLING<sup>10</sup>

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

<sup>9</sup> {Subject to endorsement by the Codex Committee on Food Labelling}

<sup>10</sup> {Subject to endorsement by the Codex Committee on Methods of Analysis and Sampling}

Alternative Section on Styles & accompanying labelling provisions

2 **Styles**

*Any presentation of the product should be permitted provided that the product meets all requirements of the Standard.*

8 **Labelling**

8.1 *General statement referring to the GSFL*

8.2 **Name of the Product**

8.2.1 *Provisions for the name of the product.*

8.2.2 .....

8.2.n *The presentation style should be declared on the label of the food if its omission would mislead or deceive the consumer*

*or*

8.2.n *The styles, as defined in Section ##, shall be declared as part of the name or in close proximity to the name of the product [if its omission would mislead or deceive the consumer].*

**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)**

<b>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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)**

<b>NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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
<b>NET WEIGHT GREATER THAN 4.5 KG (10 LB)</b>		
<b>Lot Size (N)</b>	<b>Sample Size (n)</b>	<b>Acceptance Number (c)</b>
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

## EXPLANATORY NOTES ON THE LAYOUT

### General Considerations

1. The last session of the Codex Committee on Processed Fruits and Vegetables agreed<sup>11</sup> 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 Commission<sup>12</sup> 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 fruits<sup>13</sup>, 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.
  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. 27).

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<sup>11</sup> ALINORM 05/28/27 paras. 105 - 106.

<sup>12</sup> Format for Codex Commodity Standards, Section II, Codex Alimentarius Procedural Manual, 15<sup>th</sup> Edition, pages 88 - 91.

<sup>13</sup> Codex standards and related texts are available for downloading at: <http://www.codexalimentarius.net/>

10. It is also noted that styles presentation are normally part of the product description and that the additional provisions for other styles are a sub-section of styles when they are described in the Standard. When a product is presented in different styles there are usually accompanying labelling requirements as part of the name of the product. A proposal on how to approach the combination of styles provisions and labelling requirements is presented at the end of the layout which partly reflects the discussion at the last session of the Committee and the standards for processed fruits and vegetables covering products classified in styles.
11. 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”.
12. Other Provisions - may be also incorporated depending on the nature of the product. No standardized language applies in this case.
13. **Essential composition and quality factors** - This section is usually divided into two main sub-sections relating to:
- (a) Composition, and
  - (b) quality criteria
14. Composition - includes provisions for basic ingredients, packing media (if appropriate) and other permitted ingredients (optional ingredients).
15. In case of provisions for packing media, the last session of the Committee agreed<sup>14</sup> 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.
16. 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. The text in italics reflects the decision taken at the last session of the Committee in this regard.
17. 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.
18. 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 containers<sup>15</sup>.
19. **Food Additives** - The last session of the Committee agreed<sup>16</sup> 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”.
20. In this regard, the last session of the Codex Alimentarius Commission agreed<sup>17</sup> 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.
21. 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.

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<sup>14</sup> ALINORM 05/28/27, paras. 14 - 15.

<sup>15</sup> ALINORM 05/28/27, paras. 24 and 36.

<sup>16</sup> ALINORM 05/28/27, paras. 16- 18.

<sup>17</sup> ALINORM 05/28/41, para. 189.



22. These approaches are reflected in the proposed Layout.
23. **Contaminants** - The Layout reflects the decision<sup>18</sup> 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.
24. **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 Commission<sup>19</sup>. 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.
25. **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.
26. 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.
27. **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.
28. **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.

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<sup>18</sup> ALINORM 05/28/27, para. 39.

<sup>19</sup> Relations between commodity and general committees, Section II, Codex Alimentarius Procedural Manual, 15<sup>th</sup> Edition, page 95.

## PROJECT DOCUMENT

### Proposal for the development of a SAMPLING PLAN INCLUDING METROLOGICAL PROVISIONS, FOR CONTROLLING MINIMUM DRAINED WEIGHT OF CANNED FRUITS AND VEGETABLES

#### 1. Prepared by: France

#### 2. Purpose and scope of the standard

Provisions on minimum drained weight are to be included in Codex standards on processed fruits and vegetables that are currently under revision. The objective of the project is to develop a sampling plan following a statistical approach to allow controlling the minimum drained weight requirements.

#### 3. Relevance and timeliness

The minimum drained weight for canned fruits and vegetables presented in a packing media constitutes an essential criterion to guarantee fair trade practices and the protection of consumer interests. Although the volume of international trade in canned fruits and vegetables is very considerable and involves all countries, the standards do not contain sampling plans that could be used as a point of reference for official controls and for resolving possible trade disputes.

The only method that the standards currently offer for controlling the minimum drained weight is based on the average drained weight of examined containers, "provided that there is no unreasonable shortage in individual containers." As relying on an average does not preclude significant variations, these provisions provide insufficient guarantees regarding the drained weight in individual containers. A reference method for control should therefore be defined in order to ensure that containers conform to the provisions of minimum drained weight laid down in the standards.

#### 4. Main aspects to be covered

The objective of the Standard is:

- To develop a sampling plan for controlling minimum drained weight of canned fruits and vegetables based on provisions regarding sample size in relation to the size of the consignment and criteria for rejection and acceptance of consignments.
- To determine the tolerable negative errors in the drained weight content of pre-packages, taking into account that prepackages whose content falls below the minimum required would be considered as defective.

#### 5. Assessment against the Criteria for the Establishment of Work Priorities

This proposal is consistent with the Criteria for the Establishment of Work Priorities:

- Protection of the interests of the consumer, in particular, protection against fraudulent practices;
- Fair trade practices, in particular, between operators;
- Diversification of national legislations and apparent resultant or potential impediments to international trade;
- Volume of production and consumption in individual countries and volume and pattern of trade between countries; and
- Amenability of the commodity to standardization.

#### 6. Relevance to the Codex Strategic Objectives

This proposal is congruent with the strategy of the Codex Alimentarius Commission in regard to the periodic review and harmonization of standards, taking into account the horizontal nature of the provisions foreseen, which would provide methodological consistency across a wide range of products.

#### 7. Information on the relation between the proposal and other existing Codex documents

The proposal is in line with the recommendation from the Codex Committee on Methods of Analysis and Sampling that objective and valid procedures be used whenever the conformity of products to a Codex Standard is assessed.

#### 8. Identification of any requirement for and availability of expert scientific advice

None.

**9. Identification of any need for technical input to the standard from external bodies so that this can be planned for**

None.

**10. Proposed time-line for completion of the new work, including the start date, the proposed date for adoption at step 5, and the proposed date for adoption by the Commission**

Consideration of the draft proposal by CCPFV: autumn 2008.

Adoption of the proposed draft Standard at Step 5 by the CAC: July 2009.

Adoption of the draft Standard by the CAC at Step 8: July 2011.

**PRIORITY LIST  
FOR THE STANDARDIZATION  
OF PROCESSED FRUITS AND VEGETABLES**

- Canned Berry Fruits
- Canned Fruit Cocktail
- Canned Mango
- Canned Mushroom
- Canned Pineapple
- Canned Tropical Fruit Salad
- Chutney (including Mango Chutney)
- Dried Figs
- Grated Desiccated Coconut
- Quick Frozen Broccoli
- Table Olives
- Whole Dates

**METHODS OF ANALYSIS AND SAMPLING FOR PROCESSED FRUITS AND VEGETABLES**

**AQUEOUS COCONUT PRODUCTS - Coconut Cream and Coconut Milk<sup>1</sup>  
 (CODEX STAN 240-2003)<sup>2</sup>**

Provision	Method	Principle	Type	Recommendation	Note
Moisture				<b>Codex Members and Observers should provide inputs for consideration by the 24<sup>th</sup> CCPFV</b>	The 24 <sup>th</sup> CCMAS <sup>3</sup> did not endorse the method “subtracting total solids from 100”, principle [Calculation] as it applies to milk.
Non-fat solids					The 24 <sup>th</sup> CCMAS did not endorse the method “subtracting total fats from total solids”, principle [Calculation] as it applies to milk.
Total fats					The 24 <sup>th</sup> CCMAS did not endorse method AOAC 989.05, IDF/AOAC as it applies to milk. AOAC 989.05, IDF/AOAC method needs to be checked in this regard.
Total solids					The 24 <sup>th</sup> CCMAS did not endorse method AOAC 990.20 as it applies to milk. AOAC 990.20 method needs to be checked in this regard.
Sampling	CAC/GL 50-2004	-	-		Specific provisions for sampling plans in addition to CAC/GL 50-2004 for incorporation into the Standard need to be identified (see Annexes on sampling plans in different Appendices of this Report e.g. Sampling Plan 1 and/or 2, Inspection Level I and/or II, AQL = 5).

<sup>1</sup> Codex Standards and related texts are available for downloading at: <http://www.codexalimentarius.net/search/advancedsearch.do>.

<sup>2</sup> Governments and interested international organizations in observer status with Codex wishing to submit comments on the above matter should do so in conformity with the *General Criteria for the Selection of Methods of Analysis* as set out in the *Principles for the Establishment of Codex Methods of Analysis* and the *Relations between Commodity Committees and General Committees (Methods of Analysis and Sampling)* of the Codex Alimentarius Procedural Manual and the *Recommendations for a Checklist of Information required to evaluate Methods of Analysis submitted to the Codex Committee on Methods of Analysis and Sampling for Endorsement* (Codex Alimentarius Volume 13).

<sup>3</sup> 24<sup>th</sup> CCMAS (November 2002), ALINORM 03/23, para. 69 and App. VI/H2.

**FOOD ADDITIVE PROVISIONS  
FOR PROCESSED FRUITS AND VEGETABLES**

With a view toward possible inclusion in the standards at a later stage, comments are requested justifying the need for the following food additives in each of the standards. Food additives and their acceptable maximum use levels in the tables are extracted from the relevant food categories in the Codex General Standard for Food Additives (CODEX STAN 192) (GSFA). These food additives and their acceptable maximum use levels are either adopted by the Commission or are in the Step process and apply to each of the standards that are listed below.

Comments submitted justifying the technological need for additives should address the following criteria for justifying the use of food additives as established in Section 3.2 of the Codex General Standard for Food Additives.

**3.2 JUSTIFICATION FOR THE USE OF ADDITIVES**

The use of food additives is justified only when such use has an advantage, does not present an appreciable health risk to consumers, does not mislead the consumer, and serves one or more of the technological functions set out by Codex and the needs set out from (a) through (d) below, and only where these objectives cannot be achieved by other means that are economically and technologically practicable:

- a) to preserve the nutritional quality of the food; an intentional reduction in the nutritional quality of a food would be justified in the circumstances dealt with in sub-paragraph (b) and also in other circumstances where the food does not constitute a significant item in a normal diet;
- b) to provide necessary ingredients or constituents for foods manufactured for groups of consumers having special dietary needs;
- c) to enhance the keeping quality or stability of a food or to improve its organoleptic properties, provided that this does not change the nature, substance or quality of the food so as to deceive the consumer;
- d) to provide aids in the manufacture, processing, preparation, treatment, packing, transport or storage of food, provided that the additive is not used to disguise the effects of the use of faulty raw materials or of undesirable (including unhygienic) practices or techniques during the course of any of these activities.

**Pickled Fruits and Vegetables**

Pickled Fruits and Vegetables						
INS	Substance	GSFA <sup>1</sup>				
		Food Cat. No.	ML	Step	Comment	
<b>Acidity Regulators</b>						
297	Fumaric Acid	04.2.2.7		GMP	4	
327	Calcium Lactate	04.2.2.7	10,000	mg/kg	4	Note 58 <sup>2</sup>
331iii	Trisodium Citrate	04.2.2.7		GMP	4	
350ii	Sodium Malate	04.2.2.7		GMP	4	
355-357, 359	Adipates	04.2.2.3 <sup>3</sup>	50,000	mg/kg	7	Note 1 <sup>4</sup>
		04.2.2.7	50,000	mg/kg	4	Note 1
365	Sodium Fumarate	04.2.2.7		GMP	4	
500i	Sodium Carbonate	04.2.2.7		GMP	4	
501i	Potassium Carbonate	04.2.2.7		GMP	4	
504i	Magnesium Carbonate	04.2.2.7	5000	mg/kg	4	Note 36 <sup>5</sup>

<sup>1</sup> Codex General Standard for Food Additives (GSFA) (CODEX STAN 192-2006).

<sup>2</sup> **Note 58** As calcium.

<sup>3</sup> Food Category Number 04.2.2.3: Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce.

<sup>4</sup> **Note 1** As adipic acid.

<sup>5</sup> **Note 36** Residual level.

Pickled Fruits and Vegetables						
INS	Substance	GSFA <sup>1</sup>				
		Food Cat. No.	ML	Step	Comment	
<b>Antioxidants</b>						
301	Sodium Ascorbate	04.2.2.7		GMP	4	
315	Erythorbic Acid	Table 3		GMP	Adopted	
316	Sodium Erythorbate	04.2.2.7		GMP	4	
322	Lecithin	04.2.2.7		GMP	4	
<b>Colours</b>						
100i	Curcumin	04.2.2.3	500	mg/kg	7	
		04.2.2.7	500	mg/kg	4	
102	Tartrazine	04.2.2.3	500	mg/kg	7	
		04.2.2.7	500	mg/kg	4	
104	Quinoline Yellow	04.2.2.3	500	mg/kg	7	
110	Sunset Yellow FCF	04.2.2.3	500	mg/kg	6	
		04.2.2.7	200	mg/kg	6	
120	Carmines	04.2.2.3	500	mg/kg	6	
122	Azorubine	04.2.2.3	500	mg/kg	7	
123	Amaranth	04.2.2.3	300	mg/kg	7	
		04.2.2.7	300	mg/kg	4	
124	Ponceau 4R	04.2.2.3	500	mg/kg	6	
		04.2.2.7	500	mg/kg	3	
127	Erythrosine	04.2.2.3	300	mg/kg	6	
		04.2.2.7	300	mg/kg	3	
129	Allura Red AC	04.2.2.3	500	mg/kg	6	
132	Indigotine	04.2.2.3	500	mg/kg	6	
		04.2.2.7	500	mg/kg	3	
133	Brilliant Blue FCF	04.2.2.3	500	mg/kg	6	
		04.2.2.7	500	mg/kg	3	
143	Fast Green FCF	04.2.2.3	300	mg/kg	Adopted	
		04.2.2.7	300	mg/kg	3	
150a	Caramel Colour, Class I	04.2.2.7		GMP	4	
150b	Caramel Colour, Class II	04.1.2	80,000	mg/kg	4	
		04.2.2	80,000	mg/kg	4	
150c	Caramel Colour, Class III	04.1.2	80,000	mg/kg	3	
		04.1.2.3		GMP	Adopted	
		04.2.2	80,000	mg/kg	3	
		04.2.2.3	500	mg/kg	Adopted	
		04.2.2.7		GMP	6	
151	Brilliant Black PN	04.2.2.3	500	mg/kg	7	
155	Brown HT	04.2.2.3	500	mg/kg	7	
160aii	Carotenes, Vegetable	04.1.2.3	1000	mg/kg	Adopted	
		04.1.2.10	200	mg/kg	Adopted	
		04.2.2.3	1320	mg/kg	3	
		04.2.2.7	1000	mg/kg	Adopted	
160ai, aii, e, f	Carotenoids	04.2.2.7	1000	mg/kg	3	
160b	Annatto Extracts	04.2.2.3	300	mg/kg	7	
		04.2.2.7	200	mg/kg	7	Note 9 <sup>6</sup>
161bi	Lutein from <i>Tagetes erecta</i>	04.2.2.7		GMP	4	
161g	Canthaxanthin	04.2.2.3		GMP	6	
163ii	Grape Skin Extract	04.1.2.10	1500	mg/kg	3	
		04.2.2.7	1500	mg/kg	3	
172i-iii	Iron Oxides	04.2.2.3	500	mg/kg	6	
<b>Firming Agents</b>						
523	Aluminium Ammonium Sulphate	04.2.2.3	35	mg/kg	Adopted	Note 6 <sup>7</sup>
		04.2.2.7	500	mg/kg	6	

<sup>6</sup> **Note 9** As total bixin or norbixin.

<sup>7</sup> **Note 6** As aluminium.

Pickled Fruits and Vegetables						
INS	Substance	GSFA <sup>1</sup>				
		Food Cat. No.	ML	Step	Comment	
<b>Flavour Enhancers</b>						
627	Disodium Guanylate, 5'	04.2.2.7		GMP	4	
631	Disodium Inosinate, 5'	04.2.2.7		GMP	4	
634	Calcium Ribonucleotides, 5'	04.2.2.7		GMP	4	
635	Disodium Ribonucleotides 5'	04.2.2.7		GMP	4	
<b>Preservatives</b>						
214, 216, 218	Hydroxybenzoates	04.1.2.3	800	mg/kg	7	Note 27
		04.1.2.10	800	mg/kg	7	Note 27
		04.2.2.3	1000	mg/kg	7	Note 27 <sup>8</sup>
		04.2.2.7	300	mg/kg	7	Note 27
220-225, 227, 228	Sulphites	04.2.2.7	500	mg/kg	Adopted	Note 44 <sup>9</sup>
262(ii)	Sodium Diacetate	04.1.2.3		GMP	7	
		04.2.2.3		GMP	7	
<b>Sequestrants</b>						
334, 335i, 335ii, 336i, 336ii, 337	Tartrates	04.1.2.10		GMP	7	Note 45 <sup>10</sup>
450iii	Tetrasodium Diphosphate <sup>11</sup>					
338; 339i-iii; 340i-iii; 341i-iii; 342i,ii, 343i-iii, 450i, ii, iii, v, vi, vii; 451i, ii; 452i-v; 542	Phosphates	04.1.2.3	1100	mg/kg	7	Note 33
		04.2.2.3	2200	mg/kg	7	Note 33 <sup>12</sup>
		04.2.2.7	2200	mg/kg	7	Note 33 and 76 <sup>13</sup>
472c	Citric and fatty acid esters of glycerol	04.2.2.7		GMP	4	
472e	Diacetyltartaric and fatty esters of glycerol	04.1.2.10	2500	mg/kg	Adopted	
		04.2.2.7	2500	mg/kg	Adopted	
576	Sodium Gluconate	04.2.2.7		GMP	4	

<sup>8</sup> **Note 27** As p-hydroxybenzoic acid.

<sup>9</sup> **Note 44** As residual SO<sub>2</sub>.

<sup>10</sup> **Note 45** As tartaric acid.

<sup>11</sup> In the draft standard (CX/PFV 06/23/4), sodium pyrophosphate (INS 451iii) was included with an acceptable maximum use level of 2200 mg/kg, but this reference does not exist in the Codex INS (CODEX GL 36. The 23<sup>rd</sup> CCPFV was of the opinion that it was a typing error and thought that the substance in question was INS 450iii Tetrasodium Diphosphate.

<sup>12</sup> **Note 33** As phosphorus.

<sup>13</sup> **Note 76** Use in potatoes only.



Pickled Fruits and Vegetables						
INS	Substance	GSFA <sup>1</sup>				
		Food Cat. No.	ML	Step	Comment	
<b>Sweeteners</b>						
420	Sorbitol (Including Sorbitol Syrup)	04.2.2.7	70,000	mg/kg	4	
950	Acesulfame Potassium	04.1.2.3	200	mg/kg	6	
		04.1.2.10	1000	mg/kg	3	
		04.2.2.3	1000	mg/kg	3	
		04.2.2.7	1000	mg/kg	3	
951	Aspartame	04.1.2.10	2000	mg/kg	6	
		04.2.2.7	2500	mg/kg	6	
953	Isomalt	04.2.2.7	50,000	mg/kg	4	
954	Saccharin	04.2.2.7	500	mg/kg	6	
957	Thaumatococcus	04.2.2.7		GMP	4	
961	Neotame	04.1.2.3	100	mg/kg	3	
		04.1.2.10	65	mg/kg	3	
		04.2.2.3	10	mg/kg	3	
		04.2.2.7	33	mg/kg	3	
962	Aspartame-Acesulfame Salt	04.1.2.3	450	mg/kg	3	Note 113 <sup>14</sup> & 144
		04.2.2.3	460	mg/kg	3	Note 119 <sup>15</sup> & 144 <sup>16</sup>
		04.2.2.7	2270	mg/kg	3	Note 113
965	Maltitol and Maltitol Syrup	04.2.2.7	100,000	mg/kg	4	
966	Lactitol	04.2.2.7	10,000	mg/kg	4	
967	Xylitol	04.2.2.7	10,000	mg/kg	4	

**GSFA Table 3 Food Additives by Food Additive Functional Class**

Table 3 Acidity Regulators			
INS	Additive	INS	Additive
170i	Calcium Carbonate	380	Triammonium Citrate
261	Potassium Acetates	500i	Sodium Carbonate
263	Calcium Acetate	500ii	Sodium Hydrogen Carbonate
264	Ammonium Acetate	500iii	Sodium Sesquicarbonate
297	Fumaric Acid	501i	Potassium Carbonate
325	Sodium Lactate	501ii	Potassium Hydrogen Carbonate
326	Potassium Lactate	503i	Ammonium Carbonate
327	Calcium Lactate	503ii	Ammonium Hydrogen Carbonate
328	Ammonium Lactate	504i	Magnesium Carbonate
329	Magnesium Lactate (DL-)	504ii	Magnesium Hydrogen Carbonate
331i	Sodium Dihydrogen Citrate	507	Hydrochloric Acid
331iii	Trisodium Citrate	514	Sodium Sulphate
332i	Potassium Dihydrogen Citrate	515	Potassium Sulphate
332ii	Tripotassium Citrate	524	Sodium Hydroxide
333	Calcium Citrates	525	Potassium Hydroxide
350i	Sodium Hydrogen Malate	526	Calcium Hydroxide
350ii	Sodium Malate	527	Ammonium Hydroxide
351i	Potassium Hydrogen Malate	528	Magnesium Hydroxide
351ii	Potassium Malate	529	Calcium Oxide
352ii	Calcium Malate	575	Glucono Delta-Lactone
365	Sodium Fumarate	578	Calcium Gluconate
380	Ammonium Citrate	580	Magnesium Gluconate

<sup>14</sup> **Note 113** Use level reported as acesulfame potassium equivalents.

<sup>15</sup> **Note 119** Use level reported as aspartame equivalents.

<sup>16</sup> **Note 144** For use in sweet and sour products only.

**Table 3 Antifoaming Agents**

INS	Additive
404	Calcium Alginate

**Table 3 Antioxidants**

INS	Additive	INS	Additive
301	Sodium Ascorbate	322	Lecithins
302	Calcium Ascorbate	325	Sodium Lactate
303	Potassium Ascorbate	326	Potassium Lactate
315	Erythorbic Acid	330	Citric Acid
316	Sodium Erythorbate	1102	Glucose Oxidase ( <i>Aspergillus Niger</i> var.)

**Table 3 Colours**

INS	Additive	INS	Additive
150a	Caramel Colour, Class I	171	Titanium Dioxide

**Table 3 Firming Agents**

INS	Additive	INS	Additive
333	Calcium Citrates	526	Calcium Hydroxide
511	Magnesium Chloride	580	Magnesium Gluconate
516	Calcium Sulphate		

**Table 3 Flavour Enhancers**

INS	Additive	INS	Additive
580	Magnesium Gluconate	631	Disodium Inosinate, 5'-
620	Glutamic Acid (L+)-	632	Dipotassium Inosinate, 5'-
622	Monopotassium Glutamate, L-	633	Calcium Inosinate, 5'-
623	Calcium Glutamate, DI-L-	634	Calcium Ribonucleotides, 5'-
624	Monoammonium Glutamate, L-	635	Disodium Ribonucleotides, 5'-
625	Magnesium Glutamate, DI-L-	957	Thaumatococin
626	Guanylic Acid, 5'-	968	Erythritol
627	Disodium Guanylate, 5'-	1101ii	Papain
628	Dipotassium Guanylate, 5'-	1101iii	Bromelain
629	Calcium Guanylate, 5'-	1104	Lipase (Animal Sources)
630	Inosinic Acid, 5'-	1104	Lipase ( <i>Aspergillus oryzae</i> var.)

**Table 3 Preservatives**

INS	Additive	INS	Additive
260	Acetic Acid, Glacial	280	Propionic Acid
261	Potassium Acetates	281	Sodium Propionate
262i	Sodium Acetate	282	Calcium Propionate
263	Calcium Acetate	283	Potassium Propionate

<b>Table 3 Sequestrants</b>			
<b>INS</b>	<b>Additive</b>	<b>INS</b>	<b>Additive</b>
262i	Sodium Acetate	472a	Acetic and Fatty Acid Esters of Glycerol
330	Citric Acid	472c	Citric and Fatty Acid Esters of Glycerol
331i	Sodium Dihydrogen Citrate	472b	Lactic and Fatty Acid Esters of Glycerol
331iii	Trisodium Citrate	516	Calcium Sulphate
332i	Potassium Dihydrogen Citrate	576	Sodium Gluconate
332ii	Tripotassium Citrate	577	Potassium Gluconate
333	Calcium Citrates		

<b>Table 3 Sweeteners</b>			
<b>INS</b>	<b>Additive</b>	<b>INS</b>	<b>Additive</b>
420	Sorbitol (Including Sorbitol Syrup)	965	Maltitol (Including Maltitol Syrup)
421	Mannitol	966	Lactitol
953	Isomalt	967	Xylitol
957	Thaumatococcus	968	Erythritol
964	Polyglycol Syrup		

**Processed Tomato Concentrates**

<b>Table 3 Acidity Regulators</b>			
<b>INS</b>	<b>Additive</b>	<b>INS</b>	<b>Additive</b>
170i	Calcium Carbonate	500i	Sodium Carbonate
260	Acetic Acid, Glacial	500ii	Sodium Hydrogen Carbonate
261	Potassium Acetates	500iii	Sodium Sesquicarbonate
262i	Sodium Acetate	501i	Potassium Carbonate
263	Calcium Acetate	501ii	Potassium Hydrogen Carbonate
264	Ammonium Acetate	503i	Ammonium Carbonate
270	Lactic Acid	503ii	Ammonium Hydrogen Carbonate
296	Malic Acid (DL-)	504i	Magnesium Carbonate
297	Fumaric Acid	504ii	Magnesium Hydrogen Carbonate
325	Sodium Lactate	507	Hydrochloric Acid
326	Potassium Lactate	514	Sodium Sulphate
327	Calcium Lactate	515	Potassium Sulphate
328	Ammonium Lactate	524	Sodium Hydroxide
329	Magnesium Lactate (DL-)	525	Potassium Hydroxide
350i	Sodium Hydrogen Malate	526	Calcium Hydroxide
350ii	Sodium Malate	527	Ammonium Hydroxide
351i	Potassium Hydrogen Malate	528	Magnesium Hydroxide
351ii	Potassium Malate	529	Calcium Oxide
352ii	Calcium Malate	575	Glucono Delta-Lactone
365	Sodium Fumarate	578	Calcium Gluconate
380	Ammonium Citrate	580	Magnesium Gluconate
380	Triammonium Citrate		

**Preserved Tomatoes**

Preserved Tomatoes						
INS	Substance	GSFA				
		Food Cat. No.	ML	Step	Comment	
<b>Acidity regulators</b>						
338; 339i-iii; 340i-iii; 341i-iii; 342i,ii, 343i-iii, 450i, ii, iii, v, vi, vii; 451i, ii; 452i-v; 542	Phosphates	04.2.2.4 <sup>17</sup>	2200	mg/kg	7	Note 33 <sup>18</sup>
<b>Firming agents</b>						
341i	Mono-Calcium Phosphate	See Phosphates				
338; 339i-iii; 340i-iii; 341i-iii; 342i,ii, 343i-iii, 450i, ii, iii, v, vi, vii; 451i, ii; 452i-v; 542	Phosphates	04.2.2.4 <sup>19</sup>	2200	mg/kg	7	Note 33 <sup>20</sup>

Table 3 Acidity Regulators			
INS	Additive	INS	Additive
170i	Calcium Carbonate	500i	Sodium Carbonate
260	Acetic Acid, Glacial	500ii	Sodium Hydrogen Carbonate
261	Potassium Acetates	500iii	Sodium Sesquicarbonate
262i	Sodium Acetate	501i	Potassium Carbonate
263	Calcium Acetate	501ii	Potassium Hydrogen Carbonate
264	Ammonium Acetate	503i	Ammonium Carbonate
270	Lactic Acid	503ii	Ammonium Hydrogen Carbonate
296	Malic Acid (DL-)	504i	Magnesium Carbonate
297	Fumaric Acid	504ii	Magnesium Hydrogen Carbonate
325	Sodium Lactate	507	Hydrochloric Acid
326	Potassium Lactate	514	Sodium Sulphate
328	Ammonium Lactate	515	Potassium Sulphate
329	Magnesium Lactate (DL-)	524	Sodium Hydroxide
350i	Sodium Hydrogen Malate	525	Potassium Hydroxide
350ii	Sodium Malate	526	Calcium Hydroxide
351i	Potassium Hydrogen Malate	527	Ammonium Hydroxide
351ii	Potassium Malate	528	Magnesium Hydroxide
352ii	Calcium Malate	529	Calcium Oxide
365	Sodium Fumarate	578	Calcium Gluconate
380	Ammonium Citrate	580	Magnesium Gluconate
380	Triammonium Citrate		

Table 3 Firming Agents			
INS	Additive	INS	Additive
511	Magnesium Chloride	578	Calcium Gluconate
516	Calcium Sulphate	580	Magnesium Gluconate
526	Calcium Hydroxide		

<sup>17</sup> Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds.  
<sup>18</sup> **Note 33** As phosphorus.  
<sup>19</sup> Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds.  
<sup>20</sup> **Note 33** As phosphorus.

**Certain Canned Vegetables**

Certain Canned Vegetables						
INS	Substance	GSFA				
		Food Cat. No.	ML	Step	Comment	
<b>Acidifying Regulators</b>						
334; 335i,ii; 336i,ii; 337	Tartrates	04.2.2.4	10,000	mg/kg	7	Note 45 <sup>21</sup>
338; 339i-iii; 340i-iii; 341i-iii; 342i,ii, 343i-iii, 450i, ii, iii, v, vi, vii; 451i, ii; 452i-v; 542	Phosphates	04.2.2.4	2200	mg/kg	7	Note 33 <sup>22</sup>
<b>Colours</b>						
100i	Curcumin	04.2.2.4	200	mg/kg	7	
101i, ii	Riboflavins	04.2.2.4	300	mg/kg	3	
104	Quinoline Yellow	04.2.2.4	200	mg/kg	7	
110	Sunset Yellow	04.2.2.4	200	mg/kg	6	
102	Tartrazine	04.2.2.4	200	mg/kg	7	
133	Brilliant Blue FCF	04.2.2.4	200	mg/kg	6	
122	Azorubine	04.2.2.4	200	mg/kg	7	
124	Ponceau 4R	04.2.2.4	200	mg/kg	6	
129	Allura Red AC	04.2.2.4	200	mg/kg	6	
132	Indigotine	04.2.2.4	200	mg/kg	6	
141i, ii	Chlorophylls, Copper Complexes	04.2.2.4	100	mg/kg	6	Note 62 <sup>23</sup>
143	Fast Green FCF	04.2.2.4	200	mg/kg	Adopted	
150a	Caramel Colour, Class I	Table 3		GMP	Adopted	
150b	Caramel Colour, Class II	04.2.2	80,000	mg/kg	4	
150c	Caramel Colour, Class III	04.2.2	80,000	mg/kg	3	
		04.2.2.4		GMP	Adopted	
150d	Caramel Colour, Class IV	04.2.2	80,000	mg/kg	3	
		04.2.2.4		GMP	Adopted	
151	Brilliant Black PN	04.2.2.4	200	mg/kg	7	
155	Brown HT	04.2.2.4	200	mg/kg	7	
160a(ii)	Carotenes, Vegetable	04.2.2.4	200	mg/kg	3	
160ai,aii,e,f	Carotenoids	04.2.2.4	200	mg/kg	6	
172i-iii	Iron Oxides	04.2.2.4	75	mg/kg	3	
<b>Flavor Enhancers</b>						
621	Monosodium Glutamate <sup>24</sup>	Table 3		GMP	Adopted	

<sup>21</sup> **Note 45** As tartaric acid.

<sup>22</sup> **Note 33** As phosphorus.

<sup>23</sup> **Note 62** As copper.

<sup>24</sup> GMP for (peas, green beans and canned waxed beans) or (canned vegetables).

Table 3 Acidity Regulators			
INS	Additive	INS	Additive
170i	Calcium Carbonate	504i	Magnesium Carbonate
264	Ammonium Acetate	504ii	Magnesium Hydrogen Carbonate
297	Fumaric Acid	507	Hydrochloric Acid
328	Ammonium Lactate	514	Sodium Sulphate
329	Magnesium Lactate (DL-)	515	Potassium Sulphate
365	Sodium Fumarate	524	Sodium Hydroxide
380	Ammonium Citrate	525	Potassium Hydroxide
380	Triammonium Citrate	526	Calcium Hydroxide
500i	Sodium Carbonate	527	Ammonium Hydroxide
500ii	Sodium Hydrogen Carbonate	528	Magnesium Hydroxide
500iii	Sodium Sesquicarbonate	529	Calcium Oxide
501i	Potassium Carbonate	575	Glucono Delta-Lactone
501ii	Potassium Hydrogen Carbonate	578	Calcium Gluconate
503i	Ammonium Carbonate	580	Magnesium Gluconate
503ii	Ammonium Hydrogen Carbonate		

Table 3 Colours			
INS	Additive	INS	Additive
140	Chlorophylls	162	Beet Red
150a	Caramel Colour, Class I	171	Titanium Dioxide

Table 3 Colour Retention Agents			
INS	Additive	INS	Additive
504i	Magnesium Carbonate	528	Magnesium Hydroxide
504ii	Magnesium Hydrogen Carbonate		

Table 3 Firming Agents			
INS	Additive	INS	Additive
333	Calcium Citrates	526	Calcium Hydroxide
511	Magnesium Chloride	580	Magnesium Gluconate
516	Calcium Sulphate		

Table 3 Flavour Enhancers			
INS	Additive	INS	Additive
580	Magnesium Gluconate	631	Disodium Inosinate, 5'-
620	Glutamic Acid (L+)-	632	Dipotassium Inosinate, 5'-
621	Monosodium Glutamate, L-	633	Calcium Inosinate, 5'-
622	Monopotassium Glutamate, L-	634	Calcium Ribonucleotides, 5'-
623	Calcium Glutamate, DI-L-	635	Disodium Ribonucleotides, 5'-
624	Monoammonium Glutamate, L-	957	Thaumatococcus
625	Magnesium Glutamate, DI-L-	968	Erythritol
626	Guanylic Acid, 5'-	1101ii	Papain
627	Disodium Guanylate, 5'-	1101iii	Bromelain
628	Dipotassium Guanylate, 5'-	1104	Lipase (Animal Sources)
629	Calcium Guanylate, 5'-	1104	Lipase ( <i>Aspergillus oryzae</i> var.)
630	Inosinic Acid, 5'-		

<b>Table 3 Modified Starches<sup>25</sup></b>			
<b>INS</b>	<b>Additive</b>	<b>INS</b>	
1400	Dextrins, Roasted Starch Yellow and White	1413	Distarch Phosphate, phosphated
1401	Acid-Treated Starches	1414	Acetylated Distarch Phosphate
1402	Alkali-Treated Starches	1420	Starch Acetate
1403	Bleached Starches	1422	Acetylated Distarch Adipate
1404	Oxidized Starches	1440	Hydroxypropyl Starch
1405	Starches, Enzyme Treated	1442	Hydroxypropyl Distarch Phosphate
1410	Monostarch Phosphate	1450	Starch Sodium Octenyl Succinate
1412	Distarch Phosphate	1451	Acetylated Oxidized Starch

<sup>25</sup> For use in creamed corn only.



**Certain Canned Citrus Fruits**

Certain Canned Citrus Fruits						
INS	Substance	GSFA				Comment
		Food Cat. No.	ML	Step		
<b>Acidity Regulators</b>						
334; 335i,ii; 336i,ii; 337	Tartrates	04.1.2.4	1300	mg /kg	7	Note 45 <sup>26</sup>
338; 339i-iii; 340i-iii; 341i-iii; 342i,ii, 343i-iii, 450i, ii, iii, v, vi, vii; 451i, ii; 452i-v; 542	Phosphates	04.1.2.4	200	mg /kg	7	Note 33 <sup>27</sup>

**Anti-clouding Agent**

**INS 461 – METHYL CELLULOSE AT 10 MG/KG – There is no functional class for anti-clouding agents in the Class Names and the International Numbering System for Food Additives. INS 461 is identified with a technological function of thickener, emulsifier or stabilizer. The Committee should identify a functional class for this Additive or to seek the advice of CCFA to enter a new category “Anti-clouding Agent”**

Table 3 Acidity Regulators			
INS	Additive	INS	Additive
170i	Calcium Carbonate	365	Sodium Fumarate
260	Acetic Acid, Glacial	380	Ammonium Citrate
261	Potassium Acetates	380	Triammonium Citrate
262i	Sodium Acetate	500i	Sodium Carbonate
263	Calcium Acetate	500ii	Sodium Hydrogen Carbonate
264	Ammonium Acetate	500iii	Sodium Sesquicarbonate
270	Lactic Acid	501i	Potassium Carbonate
296	Malic Acid (DL-)	501ii	Potassium Hydrogen Carbonate
297	Fumaric Acid	503i	Ammonium Carbonate
325	Sodium Lactate	503ii	Ammonium Hydrogen Carbonate
326	Potassium Lactate	504i	Magnesium Carbonate
327	Calcium Lactate	504ii	Magnesium Hydrogen Carbonate
328	Ammonium Lactate	507	Hydrochloric Acid
329	Magnesium Lactate (DL-)	514	Sodium Sulphate
330	Citric Acid	515	Potassium Sulphate
331i	Sodium Dihydrogen Citrate	524	Sodium Hydroxide
331iii	Trisodium Citrate	525	Potassium Hydroxide
332ii	Tripotassium Citrate	526	Calcium Hydroxide
332i	Potassium Dihydrogen Citrate	527	Ammonium Hydroxide
333	Calcium Citrates	528	Magnesium Hydroxide
350i	Sodium Hydrogen Malate	529	Calcium Oxide
350ii	Sodium Malate	575	Glucono Delta-Lactone
351i	Potassium Hydrogen Malate	578	Calcium Gluconate
351ii	Potassium Malate	580	Magnesium Gluconate
352ii	Calcium Malate		

Table 3 Firming Agents			
INS	Additive	INS	Additive
333	Calcium Citrates	526	Calcium Hydroxide
511	Magnesium Chloride	578	Calcium Gluconate
516	Calcium Sulphate	580	Magnesium Gluconate

<sup>26</sup> **Note 45** As tartaric acid.

<sup>27</sup> **Note 36** Residual level.

**Jams, Jellies and Marmalades**

Jams, Jellies and Marmalades						
INS	Substance	GSFA				
		Food Cat. No.	ML		Step	Comment
<b>Acidity Regulators</b>						
338; 339i-iii; 340i-iii; 341i-iii; 342i,ii, 343i-iii, 450i, ii, iii, v, vi, vii; 451i, ii; 452i- v; 542	Phosphates	04.1.2.5	530	mg/kg	7	Note 33 <sup>28</sup>
355-357, 359	Adipates	04.1.2.5	2000	mg/kg	7	Note 1 <sup>29</sup>
<b>Colours</b>						
160e	Paprika Oleoresins <sup>30</sup>	No JECFA ADI for use as colour				
<b>Preservatives</b>						
200-203	Sorbates	04.1.2.5	1000	mg/kg	7	Note 42 <sup>31</sup>
210-213	Benzoates	04.1.2.5	1000	mg/kg	Adopted	Note 13 <sup>32</sup>
		04.1.2.5	1500	mg/kg	3	Note 13 <sup>33</sup>
214, 216, 218	Hydroxybenzoates	04.1.2.5	1000	mg/kg	7	Note 27 <sup>34</sup>
385, 386	EDTAs	04.1.2.5	130	mg/kg	Adopted	Note 21 <sup>35</sup>
<b>Thickening Agents</b>						
405	Propylene Glycol Alginate	04.1.2.5	20,000	mg/kg	7	

Table 3 Acidity Regulators			
INS	Additive	INS	Additive
170i	Calcium Carbonate	500ii	Sodium Hydrogen Carbonate
260	Acetic Acid, Glacial	500iii	Sodium Sesquicarbonate
261	Potassium Acetates	501i	Potassium Carbonate
262i	Sodium Acetate	501ii	Potassium Hydrogen Carbonate
263	Calcium Acetate	503i	Ammonium Carbonate
264	Ammonium Acetate	503ii	Ammonium Hydrogen Carbonate
297	Fumaric Acid	504i	Magnesium Carbonate
325	Sodium Lactate	504ii	Magnesium Hydrogen Carbonate
326	Potassium Lactate	507	Hydrochloric Acid
328	Ammonium Lactate	514	Sodium Sulphate
329	Magnesium Lactate (DL-)	515	Potassium Sulphate
332i	Potassium Dihydrogen Citrate	525	Potassium Hydroxide
332ii	Tripotassium Citrate	526	Calcium Hydroxide
351i	Potassium Hydrogen Malate	527	Ammonium Hydroxide
351ii	Potassium Malate	528	Magnesium Hydroxide
352ii	Calcium Malate	529	Calcium Oxide
365	Sodium Fumarate	575	Glucono Delta-Lactone
380	Ammonium Citrate	578	Calcium Gluconate
380	Triammonium Citrate	580	Magnesium Gluconate
500i	Sodium Carbonate		

<sup>28</sup> **Note 33** As phosphorus.

<sup>29</sup> **Note 1** As adipic acid.  
<sup>30</sup> At GMP.

<sup>31</sup> **Note 42** As sorbic acid.

<sup>32</sup> **Note 13** As benzoic acid.

<sup>33</sup> **Note 13** As benzoic acid.

<sup>34</sup> **Note 27** As p-hydroxybenzoic acid.

<sup>35</sup> **Note 21** As anhydrous calcium disodium EDTA.

**Table 3 Antifoaming Agents**

INS	Additive
404	Calcium Alginate

**Table 3 Colours**

INS	Additive
171	Titanium Dioxide

**Table 3 Firming Agents**

INS	Additive	INS	Additive
333	Calcium Citrates	526	Calcium Hydroxide
511	Magnesium Chloride	580	Magnesium Gluconate
516	Calcium Sulphate		

**Table 3 Gelling Agents**

INS	Additive	INS	Additive
401	Sodium Alginate	418	Gellan Gum
404	Calcium Alginate	440	Pectins
406	Agar	508	Potassium Chloride
407	Carrageenan		

**Table 3 Preservatives**

INS	Additive	INS	Additive
260	Acetic Acid, Glacial	280	Propionic Acid
261	Potassium Acetates	281	Sodium Propionate
262i	Sodium Acetate	282	Calcium Propionate
263	Calcium Acetate	283	Potassium Propionate

**Table 3 Thickeners**

INS	Additive	INS	Additive
407a	Processed Eucheuma Seaweed	1400	Dextrins, White and Yellow, Roasted Starch
413	Tragacanth Gum	1401	Acid Treated Starch
414	Gum ARABIC	1402	Alkaline Treated Starch
416	Karaya Gum	1403	Bleached Starch
417	Tara Gum	1404	Oxidized Starch
425	Konjac Flour	1405	Enzyme Treated Starch
461	Methyl Cellulose	1410	Monostarch Phosphate
463	Hydroxypropyl Cellulose	1412	Distarch Phosphate
464	Hydroxypropyl Methyl Cellulose	1413	Phosphated Distarch Phosphate
465	Methyl Ethyl Cellulose	1414	Acetylated Distarch Phosphate
466	Sodium Carboxymethyl Cellulose	1420	Starch Acetate
467	Ethyl Hydroxyethyl Cellulose	1422	Acetylated Distarch Adipate
469	Sodium Carboxymethyl Cellulose, Enzymatically Hydrolyzed	1440	Hydroxypropyl Starch
967	Xylitol	1442	Hydroxypropyl Distarch Phosphate
1200	Polydextroses	1450	Starch Sodium Octenyl Succinate