codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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

ALINORM 05/28/27

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

Twenty-eighth Session
Rome, Italy, 4 - 9 July 2005

REPORT OF THE TWENTY-SECOND SESSION OF THE CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

Washington D.C., U.S.A., 27 September - 1 October 2004

NOTE: This Report includes Codex Circular Letter CL 2005/03-PFV

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CX 5/5.2 **CL 2005/03-PFV**
January 2005

TO: - Codex Contact Points

- Interested International Organizations

FROM: Secretary, Codex Alimentarius Commission
FAO, Viale delle Terme di Caracalla, 00100, Rome, Italy
Fax: 39.06.570-54593; Email: codex@fao.org

SUBJECT: **DISTRIBUTION OF THE REPORT OF THE TWENTY-SECOND SESSION OF THE CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES (ALINORM 05/28/27)**

PART A: MATTERS FOR ADOPTION BY THE 28th SESSION OF THE CODEX ALIMENTARIUS COMMISSION

Proposed draft Standards at Step 5 of the Procedure

1. **Proposed draft Codex Standard for Processed Tomato Concentrates** (para. 48 and Appendix II)

2. **Proposed draft Codex Standard for Preserved Tomatoes** (para. 76 and Appendix III)

3. **Proposed draft Codex Standard for Certain Canned Citrus Fruits** (para. 89 and Appendix IV)

Governments and interested international organizations in observer status with Codex wishing to submit comments regarding the implications which the proposed draft standards or any provisions thereof may have for their economic interest should do so in conformity with the *Uniform Procedure for the Elaboration of Codex Standards and Related Texts* (at Step 5) of the Codex Alimentarius Procedural Manual to the Secretary, Codex Alimentarius Commission, ***preferably by e-mail***, **BEFORE 15 MAY 2005**.

PART B: REQUEST FOR COMMENTS AND INFORMATION

4. **Proposed draft Codex Standard for Certain Canned Vegetables, including provisions for packing media** (para. 80 and Appendix V)

5. **Proposed draft Codex Standard for Jams, Jellies and Marmalades** (para. 84 and Appendix VI)

Governments and interested international organizations in observer status with Codex wishing to submit comments on all aspects including possible implications which the proposed draft standards or any provisions thereof may have for their economic interest should do so in conformity with the *Uniform Procedure for the Elaboration of Codex Standards and Related Texts* (at Step 3) of the Codex Alimentarius Procedural Manual to the Secretary, Codex Alimentarius Commission, ***preferably by e-mail***, **BEFORE 30 JUNE 2005**.

6. Proposals for Amendments to the Priority List for the Standardization of Processed Fruits and Vegetables (paras. 94 & 98 and Appendix VII)

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 *Proposals to Undertake New Work or to Revise a Standard* (Codex Alimentarius Procedural Manual, Part 2 Critical Review) to the Secretary, Codex Alimentarius Commission, ***preferably by e-mail***, **BEFORE 31 MAY 2006**.

7. Methods of Analysis and Sampling for Processed Fruits and Vegetables - Aqueous Coconut Products, Coconut Cream and Coconut Milk (para. 104 and Appendix VIII-Part II)

Governments and interested international organizations in observer status with Codex wishing to submit comments on the above matter should do so in writing, ***preferably by e-mail***, to the Secretary, Codex Alimentarius Commission, **BEFORE 31 MAY 2006**.

SUMMARY AND CONCLUSIONS

The 22nd Session of the Codex Committee on Processed Fruits and Vegetables reached the following conclusions:

MATTERS FOR CONSIDERATION BY THE 28TH SESSION OF THE CODEX ALIMENTARIUS COMMISSION

The Committee:

- Agreed to advance the ***proposed draft Codex Standards for Processed Tomato Concentrates***, ***Preserved Tomatoes*** and ***Certain Canned Citrus Fruits*** to the 28th Session of the Codex Alimentarius Commission for preliminary adoption at Step 5 (paras. 48, 76, and 89);

OTHER MATTERS OF INTEREST TO THE COMMISSION

The Committee agreed to:

- rename the draft Codex Standard for Pickled Products as ***draft Codex Standard for Pickled Fruits and Vegetables*** and return it to Step 6 for redrafting by a Working Group led by Thailand, circulation for additional comments at Step 6 and further consideration at its 23rd Session (para. 22);

- return the ***proposed draft Codex Standards for Certain Canned Vegetables*** (including provisions for packing media) and ***Jams, Jellies and Marmalades*** to Step 3 for circulation, comments at Step 3, revision by Working Groups led by France and the United Kingdom respectively, circulation for additional comments at Step 3 and further consideration at the 23rd Session of the Committee (paras. 80 and 84);

- discontinue the consideration of the ***proposed draft Codex Standard for Soy Sauce*** while recommending the Executive Committee of the Codex Alimentarius Commission to entrust this work to the Codex Committee on Cereals, Pulses and Legumes (para. 87);

- leave unchanged the ***Priority List for the Standardization of Processed Fruits and Vegetables*** while continuing to request comments for amendments to the Priority List for consideration at its next Session (paras. 94 and 98);

- consider a **Standard Layout for Codex Standard for Processed Fruits and Vegetables** at its next Session to ensure a consistent approach as regards format, terminology and provisions in Codex standards for processed fruits and vegetables (para. 106);

- forward methods of analysis for processed fruits and vegetables to the Codex Committee on Methods of Analysis and Sampling for endorsement (para. 104);

- request comments on methods of analysis and sampling for aqueous coconut products, coconut cream and coconut milk for consideration at its next Session (para. 104);

- seek clarification from the Codex Committee on Food Labelling and the Codex Committee on Food Additives and Contaminants as to the correct use of the term “sweetener” in Codex commodity standards (para. 13); and

- seek advice from the Codex Committee on Pesticide Residues on the concentration factor to be used for residues of pesticides in those Codex standards for processed fruits and vegetables where the product is concentrated and re-diluted (paras. 39 and 68).

TABLE OF CONTENTS

LIST OF APPENDICES

OPENING OF THE SESSION

1. The 22nd Session of the Codex Committee on Processed Fruits and Vegetables was held in Washington D.C., from 27 September to 1 October 2004 at the kind invitation of the Government of the United States of America. Mr. David Priester, Head, Standardization Section, Agriculture Marketing Service, Fruits and Vegetable Programs, United States Department of Agriculture, chaired the Session, The Session was attended by delegates from 31 Member countries and 1 Member organization and Observers from 6 international organizations. The list of participants is attached to this report as Appendix I.

2. The Session was opened by Dr. Kenneth Clayton, Associate Administrator of the Agricultural Marketing Service, United States Department of Agriculture.

ADOPTION OF THE AGENDA (Agenda Item 1)[1]

3. The Commission adopted the Provisional Agenda as its Agenda for the Session.

4. 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.

5. The Committee agreed to hold Working Groups on proposed draft Codex Standard for Canned Vegetables (Agenda Item 4c), proposed draft Codex Standard for Jams, Jellies and Marmalades (Agenda Item 4d) and Methods of Analysis and Sampling for Processed Fruits and Vegetables (Agenda Item 6a) under the chairmanship of France, United Kingdom and United States respectively.

MATTERS REFFERED/OF INTEREST TO THE COMMITTEE ARISING FROM THE CODEX ALIMENTARIUS COMMISSION AND OTHER CODEX COMMITTEES AND TASK FORCES (Agenda Item 2)[2]

Adoption of Codex Standard for Processed Fruits and Vegetables

6. The Committee acknowledged that the document was presented for information only and that no action needed to be taken on the matters contained therein. In this regard, the Committee was informed that the 26th Session of the Codex Alimentarius Commission adopted the draft Codex Standards for Bamboo Shoots (with amendments); Canned Stone Fruits; Aqueous Coconut Products – Coconut Milk and Coconut Cream; and the draft Codex Guidelines for Packing Media for Canned Fruits (with amendments in the Spanish version), which superseded the CAC/GL 35-1985 Packing Media (Composition and Labelling).

Endorsement of Provisions in Codex Standards for Processed Fruits and Vegetables

7. The Committee noted that the 35th Session of the Codex Committee on Food Additives and Contaminants had endorsed the additive provisions in the draft Codex Standards for Canned Stone Fruits and for Aqueous Coconut Products. In addition, the 31st Session of the Codex Committee on Food Labelling had endorsed the labeling provisions in the draft Codex Guidelines for Packing Media for Canned Fruits and in the following draft Codex Standards: Canned Bamboo Shoots; Canned Stone Fruits; and Aqueous Coconut Products – Coconut Milk and Coconut Cream.

Elaboration of Codex Standards for Fermented Soybean Paste (Doenjang) and Hot Pepper Fermented Soybean Paste (Gochujang)

8. The Committee also noted that the 27th Session of the Codex Alimentarius Commission entrusted the initial elaboration of Codex Standards for Fermented Soybean Paste (Doenjang) and Hot Pepper Fermented Soybean Paste (Gochujang) to the FAO/WHO Coordinating Committee for Asia and, if required, finalization by the Codex Committee on Cereals, Pulses, and Legumes.

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1 CX/PFV 04/22/1 and CRD 1 (Division of Competence between the European Community and its Member States).

2 CX/PFV 04/22/2.

Recommended International Code of Practice for the Processing and Handling of Quick Frozen Foods

9. The Committee further noted the decision of the 27th Session of the Commission that the revision of the Recommended International Code of Practice for the Processing and Handling of Quick Frozen Foods would be done by correspondence as per quality provisions and coordinated by the United States of America, as host Country of the Codex Committees on Processed Fruits and Vegetables and Food Hygiene, until preliminary adoption at Step 5 and finalization as per hygienic/safety provisions by the Codex Committee on Food Hygiene for final adoption at Step 8. A Joint Meeting of the Codex Committee on Food Hygiene and/or the relevant Commodity Committees might be convened to finalize the hygienic provisions as well as those unsolved quality provisions for which it was not possible to reach consensus during the work by correspondence.

Other Matters

10. In addition, the Committee noted the request of the 36th Session of the Codex Committee on Food Additives and Contaminants to the *Ad Hoc* Codex Intergovernmental Task Force on Fruit and Vegetable Juices to clarify whether coconut water should be included in the draft Codex General Standard for Fruit Juices and Nectars, in order to assign a food category (i.e. 14.1.2.1 Fruit Juice) so that food additive provisions for coconut water could be included in the Codex General Standard for Food Additives.

CONSIDERATION OF DRAFT CODEX STANDARDS AT STEP 7 (Agenda Item 3)[3]

GENERAL CONSIDERATIONS ON CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES

Sweeteners

11. The Committee noted the different combinations of the terms "nutritive", "carbohydrate", and "sweeteners" and the prefix "non" in front of any of these combinations in Codex standards for processed fruits and vegetables without a consistent application of these terms. The Committee also noted that this might have the potential to create confusion on whether terms such as "(nutritive) carbohydrate sweetener" or "nutritive sweetener" applied only to food ingredients (e.g. sugars, honey, syrups, etc.) or to certain types of food additive sweeteners with some caloric/nutritive (e.g. sugar alcohols). Similarly, it was not clear if terms such as "non-carbohydrate (nutritive) sweeteners" or "non-nutritive sweeteners" applied only to certain types of food additive sweeteners, usually regarded as "artificial" or "intense/high intensity sweeteners", or to any type of food additive sweetener being used in the production of food for special dietary uses (e.g. diet foods). The Committee further noted the possible use of terms such as "artificial" vs. "natural" sweeteners to differentiate between food additive sweeteners and other sweetening agents such as sugars, honey, etc.

12. The Committee noted that within the Codex system the terms "sugars" (including certain syrups), "honey", and "sweetener" were defined in the Codex Standards for Sugars[4] and Honey[5], and in the Codex Class Names and International Numbering System for Food Additives[6] respectively. In addition, the Codex General Standard for the Labelling of Prepackaged Foods[7] did not differentiate between the different kinds of food additive sweeteners and grouped them under the general term "sweetener" while all types of sucrose were designated as "sugar" and considered as ingredients. In addition, in a Codex Standard, the reference to "sweetener" was usually considered as a food additive regardless of its caloric/nutritive value and listed under the Section on Food Additives under the general name "Sweetener"; whereas any reference to compounds which were not considered as food additives, but performing a sweetening function, were regarded as a food/food ingredient and listed under the Section on Essential Composition and Quality Factors. The Committee also noted than when discussing the Codex Standard for Applesauce, it had decided that the term "sugars" or "nutritive sweeteners" appearing in the Standard should be replaced by "*sugars as defined in the Codex Alimentarius and/or other carbohydrate sweeteners such as honey*".

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3 CX/PFV 04/22/3 and comments submitted by Egypt, France, Iran, Malaysia, New Zealand, United States, and Venezuela (CX/PFV 04/22/3-Add.1); Australia (CRD 2); Canada (CRD 7); EC (CRD 10); and Thailand (CRD 11).

4 CODEX STAN 212-1999, Amd. 1-2001.

5 CODEX STAN 12-1987, Rev. 2-1001.

6 CAC/GL 36-1989, Rev. 7-2003.

7 CODEX STAN 1-1985, Rev. 1-1991.

13. The Committee agreed that this matter was a cross cutting issue that should be resolved in a horizontal manner through the Codex Committee on Food Additives and Contaminants and the Codex Committee on Food Labelling so that substances used as food ingredients for sweetening purposes and substances used as food additives for sweetening purposes can be designated in a consistent manner within the Codex system. As a result, the Committee agreed to put forward the following questions to the aforesaid Committees:

a. Codex Committee on Food Labelling: In terms of foodstuff sweeteners (natural) (i.e., non-food additive), what terms (e.g., carbohydrate, nutritive) should be used in Codex commodity standards to indicate sweeteners other than those conforming to the Codex Standards for Sugars and Honey)?

b. Codex Committee on Food Additives and Contaminants & Codex Committee on Food Labelling: In terms of food additive sweeteners (artificial), what terms are appropriate to describe sweeteners (e.g. non-carbohydrate, non-nutritive, high/low intensity)?

Packing Media

14. The Committee had an exchange of views on the need to keep specific packing media provisions in the Codex standards for processed fruits and vegetables or to reference to more horizontal texts such as the recently adopted Codex Guidelines for Packing Media for Canned Fruits (see para. 6).

15. The Committee agreed that Option (b) in paragraph 17 of working paper CX/PFV 04/22/3 would allow for adequate flexibility to introduce specific provisions for packing media in addition to those laid down in the Codex Guidelines for Packing Media for Canned Fruits or in the Codex Guidelines for Packing Media for Canned Vegetables (under development). This was similar to the additional requirements usually needed in relation, for instance, to the labelling specifications by which following a general statement, specific provisions for packing media might be laid down e.g. "*The product covered by the provision of this Standard should comply with the provisions of the Codex Guidelines for Packing Media for Canned Fruits/Vegetables. In addition, the following specific requirements apply...*". It was however recognized that in certain cases it might not be possible to refer to the Guidelines due to the specificity of the product.

Food Additives

16. The Committee noted that the present approach to food additive provisions in Codex standards for processed fruits and vegetables consisted in having a food additive section containing all the provisions relating to food additives. However, some of the current standards under study contained approaches being considered in the Codex Committee on Food Additives and Contaminants vis-à-vis the relationship between Codex commodity committees and the Codex General Standard for Food Additives.

17. When considering the options given in paragraph 17 of working document CX/PFV 04/22/3, some delegations were of the opinion that the technical expertise of the Codex commodity committees should be used for determining the need for food additives and that this was in accordance with the current practice established in the Procedural Manual of the Codex Alimentarius Commission (Option a). Other delegations were of the view that the work already done in other horizontal Committees should be utilized by referring to the general texts elaborated by these Committees e.g. the Codex General Standard for Food Additives (Option b).

18. The Committee agreed that, as the Codex Committee on Food Additives and Contaminants was considering the relationship between Codex commodity committees and the Codex General Standard for Food Additives, for the time being it would be appropriate to follow Option (a) namely to keep a "list of individual provisions for food additives subject to endorsement by the Codex Committee on Food Additives and Contaminants and inclusion in the Codex General Standard for Food Additives".

DRAFT CODEX STANDARD FOR PICKLED PRODUCTS

19. The Committee had an exchange of views on the Scope of the draft Standard. Several delegations were of the opinion that the Scope should be clarified to identify and limit the products it applied to before proceeding further. The following proposals were made:

a. The title of the product should be revised to cover only pickled fruits (with or without stones) and vegetables as the term "product" might encompass products of animal origin e.g. pickled meat, poultry, fish, that were outside the terms of reference of the Committee.

b. The draft Standard should:

i. apply to pickled products having the potential to create barriers to international trade or consumers concern from the point of view of health and fraudulent practices;

ii. cover dried pickled products without packing media;

iii. exclude pickled products already standardized by the Committee such as table olives, pickled cucumbers, kimchi, etc. In addition, onions and sauerkrauts should be also excluded from the Scope;

iv. leave out pickled products such as chutneys and relishes in which the packing media was consumed as part of the product.

20. In addition, it was noted that the draft Standard should be aligned with the standardized language applied to the Scope for consistency with other Codex standards for processed fruits and vegetables.

21. The Committee agreed that the Standard should apply to pickled fruits and vegetables only and consequently, it amended the Title and the Scope as follows:

Draft Codex Standard for Pickled Fruits and Vegetables

This Standard applies to edible fruits and vegetables which have been cured, processed or heated to produce an acidified product preserved through natural fermentation or acidulants. The product may or may not be packed in oil, brine, or acidic media such as vinegar. Products covered by this Standard include, but are not limited to onions, garlic, mango, radish ginger, beetroot, royal plum peppers, hearts of palm, lemons. This Standard applies to products as defined in Section 2 below and offered for direction consumption, including for catering purposes or for repacking if required. It does not apply to product when indicating as being intended for further processing. This Standard does not cover pickled cucumbers, kimchi, table olives, chutney, and relish.

Status of the draft Codex Standard for Pickled Products

22. The Committee agreed that the renamed draft Codex Standard for Pickled Fruits and Vegetables should be revised in the light of the revised Scope and the written comments submitted at the present Session by a Working Group led by Thailand with the assistance of India, Malaysia, Philippines, the Netherlands, the United Kingdom, and the United States. It was noted that working groups were open to all Codex Members and Observers. The Committee requested the Working Group to submit the revised text to the Codex Secretariat by end of February 2005 for circulation, comments at Step 6, and further consideration by the next Session of the Committee.

CONSIDERATION OF PROPOSED CODEX STANDARDS AT STEP 4

PROPOSED DRAFT CODEX STANDARD FOR PROCESSED TOMATO CONCENTRATES (Agenda Item 4a)[8]

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

Section 1 - Scope

24. The Committee included a reference to cover processed tomato concentrates for catering purposes and for repacking, as well as for consistency with other Codex standards for processed fruits and vegetables. It deleted "(excluding the Section 3.2.8 and the Section 7)" as it was more appropriate to refer to these exclusions under relevant sections (see paras. 36 and 40).

Section 2.1 - Product Definition

25. The Committee deleted the numbering of Section 2.1.1 for consistency with the format of other Codex standards for processed fruits and vegetables. It agreed that it was more appropriate to refer to "juice or pulp" instead of "liquid". In addition, it noted that both *Lycopersicum esculentum* P. Mill and *Lycopersicon esculentum* P. Mill applied as scientific names for tomato.

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8 CX/PFV 04/22/4 and comments submitted by Egypt, France, Iran, Malaysia, United States, Venezuela, the World Processing Tomato Council (CX/PFV 04/22/4-Add.1); Australia (CRD 2); Uruguay (CRD 4); Nigeria (CRD 5); Canada (CRD 7); EC (CRD 10); Thailand (CRD 11); and Cuba (CRD 20).

26. The Committee reorganized the text in Section 2.1 into two sections as follows:

i. Section 2.1 Product Definition, to include points (a) and (b) and the sentence in Section 2.1.4

ii. Section 2.2 Product Designation, to include the sentence "Tomato concentrate may be considered 'Tomato Puree' or 'Tomato Paste' when the concentrate meets these requirements" and the description related to Tomato Puree and Tomato Paste.

27. The Committee put in square brackets all concentration values of tomato soluble solids for further discussion at its next Session with the understanding that proposals for changing these values should be justified. It also inserted a footnote to clarify that the all concentrations of soluble solids were measured on the product without added salt.

Section 3.1.1 - Optional Ingredients

28. The Committee agreed to refer to "edible aromatic plants" for consistency with other Codex standards for processed fruits and vegetables. For clarity, it agreed to refer to water only and the wording related to the modality of water use was deleted. Other delegations proposed the addition of sugars under this Section.

Section 3.2 - Quality Criteria

29. The Committee amended the first sentence to specify that processed tomato concentrate should have "good flavour and odour, fairly good red colour" and should posses "a homogeneous (evenly divided) texture characteristic of the product". It noted the concern of some delegations that the flavour could be altered by the addition of spices and edible aromatic plants. The sections on colour, texture and flavour were deleted as redundant and the other sections were renumbered accordingly.

30. The Committee agreed to reorganize the texts in sections 3.2.4 "Defects", 3.2.5 "Lactic Acid", 3.2.6 "Mould Count" in two new sections: 3.2.1 "Definition of Defects" and 3.2.2 "Defects and Allowances" for consistency with the format of other Codex standards for processed fruits and vegetables.

31. In Section 3.2.1 "Definition of Defects", the Committee clarified that: i) processed tomato concentrate should be prepared in accordance to Good Manufacturing Practices; and, ii) the product should be practically free of objectionable tomato peel and practically free of seeds or particles of seeds.

32. In Section 3.2.2 "Defects and Allowances", the Committee included all measurable defects for which tolerances could be set, namely: 3.2.2.1 "Mineral Impurities"; 3.2.2.2 "Lactic Acid"; and, 3.2.2.3 "Mould Count". The Committee added a new Section 3.2.2.4 "pH" in which a pH value of 4.6 was put in square brackets for further discussion at its next Session. The Committee also added a footnote to clarify that mineral impurities referred to sand, soil, and other similar materials no covered by the Section on Contaminants.

33. The Committee noted that lactic acid was the most important parameter to measure the quality of the raw material and of the processing of tomato concentrate.

34. With regard to mould count, the Committee noted that tolerance for mould count differed among various country legislations and that it would be difficult to compromise on a value. It agreed to replace the current text with a new sentence allowing for the mould count to be set according to the national legislation of importing countries. In noting the concern of some countries that a value for mould count would ensure transparency and harmonization and would assist in particular those countries which did not have provisions for mould count in their legislation, the Committee put the entire new sentence in square brackets for further discussion at its next Session.

Section 3.2.8 - Lot Acceptance

35. The Committee noted that the 27th Session of the Codex Alimentarius Commission had adopted the Codex General Guidelines on Sampling (CAC/GL 50-2004) and that the Codex Standard on Sampling Plans for Prepackaged Foods (AQL 6.5) (CODEX STAN 233-1969) had been withdrawn. In view of this, the Committee agreed to refer the Codex General Guidelines for Sampling and to keep the Acceptable Quality Level (AQL) = 6.5 as widely used and proved valid. The Committee noted that the Codex General Guidelines did not provide for specific sampling plans and therefore, agreed to retain the Sampling Plans 1 (Inspection Level I, AQL = 6.5) and 2 (Inspection Level II, AQL = 6.5) of the revoked Sampling Plans (CODEX STAN 233-1969) and to annex them to the proposed draft Standard. The Committee agreed to apply this decision to Codex standards for processed fruits and vegetables when appropriate (see para. 102).

36. In accordance to its previous decision (see para. 24), the Committee clarified that the acceptance criteria did not apply to non-retail containers.

Section 4 - Additive (4.1 Acidity Regulators)

37. In accordance with its previous decision (see para. 18), the Committee agreed to list individual provisions for food additives and to include citric acid and citrates at a maximum level limited by GMP. The Committee did not retain the other acidity regulators included in the Codex Standard for Processed Tomato Concentrates (CODEX STAN 57-1981) because: i) malic acid and L-tartaric acid were no longer used in the tomato concentrate industry, the first due to its low buffering capacity and high cost and the second because its taste was not compatible with tomato flavour; ii) lactic acid was not included as it was a quality parameter (see para. 30).

38. The Delegation of Sudan indicated that salt should be added in this Section. The Committee noted that within Codex salt (sodium chloride) was not considered as a food additive but as a food ingredient and therefore it could not be listed under this Section.

Section 5 - Contaminants

39. The Committee organized the Section into two sections to refer specifically to Pesticide Residues (Section 5.1) and Other Contaminants (Section 5.2) which included heavy metals and other contaminants such as mycotoxins. It considered necessary to take into account the concentration factor in the maximum level of residues as tomato concentrate was re-diluted when consumed in sauce. Therefore, the following sentence was added in the two sections "The value of maximum levels must comply with NTSS (Natural Tomato Soluble Solids) content, with a reference value of 4.5 for fresh tomato". The Committee agreed to ask the advice of the Codex Committee on Pesticide Residues and on Food Additives and Contaminants with regard to the concentration effect when setting maximum levels for residue of pesticides and contaminants.

Section 7 - Weight and Measures

40. In accordance with its previous decision (see para. 24), the Committee added a footnote to clarify that the provisions of Section 7 did not apply to non-retail containers.

Section 7.1 - Fill of Containers

41. The Committee clarified the first sentence of section 7.1.1 "Minimum Fill" to refer to flexible containers and, section 7.1.2 "Classification of 'Defectives" to refer to rigid containers only.

42. The Committee rectified the first sentence of Section 7.1.1 "Minimum fill" to introduce reference to rigid and flexible containers, associating the 90% level with rigid containers and specifying that the fill of flexible containers should not be prejudicial to the quality or presentation of the product nor to the required volume. The Committee decided to adapt Section 7.1.2 in the same manner.

Section 7.1.3 - Lot Acceptance

43. This Section was aligned with the text in Section 3.2.8 (see para. 35).

Section 8 - Labelling

44. For consistency with other Codex standards for processed fruits and vegetables, the numbering of Section 8.1 was deleted and the other sections renumbered accordingly.

Section 8.2 - Name of the Product

45. For consistency with the decision concerning product designations (see para. 26), the Committee deleted the text in point (c) and added a sentence to indicate that other denominations, usually employed in the country, accompanied by the declaration of the percentage of the natural tomato soluble solids could be used. In accordance with its previous decision (see para. 27), the Committee agreed to put in square brackets all the concentration values of tomato soluble solids.

Section 8.4 - Labelling of Non-Retail Container

46. The Committee revised the section for consistency with standardized language of other Codex texts.

Section 9 - Methods of Analysis and Sampling

47. See paras. 100 - 104.

Status of the proposed draft Codex Standard for Processed Tomato Concentrates

48. The Committee forwarded the proposed draft Codex Standard for Processed Tomato Concentrates to the Codex Alimentarius Commission for preliminary adoption at Step 5 (see Appendix II).

PROPOSED DRAFT CODEX STANDARD FOR CANNED (PRESERVED) TOMATOES (Agenda Item 4b)[9]

49. The Committee considered the proposed draft Codex Standard for Canned (Preserved) Tomatoes section by section and agreed on the following changes:

Title

50. The Committee agreed to refer to "Preserved Tomatoes" throughout the text as the term "canned" might limit the product to tomatoes packaged in cans while the term "preserved" provided for adequate flexibility and allowed for future development/innovation in packaging materials. The Committee noted that in the French version the term "tomate en conserve" would be the correct translation.

Section 1 - Scope

51. The Committee agreed to include a reference to cover preserved tomatoes for catering purposes and for repacking as well as for consistency with other Codex standards for processed fruits and vegetables. In addition, the Committee agreed to exclude "dried tomatoes" from the Scope of the proposed draft Standard.

Section 2.1 - Product Definition

52. The Committee agreed:

i. In Section 2.1 (a), to refer to both *Lycopersicum esculentum* P. Mill and *Lycopersicon esculentum* P. Mill for consistency with its previous decision (see para. 25)

ii. In Section 2.1 (b), to refer to "packing medium" instead of "liquid medium" for consistency with other Codex standards for processed fruits and vegetables and applied this change throughout the text.

iii. In Section 2.1 (c), to leave the last sentence into square brackets as there were certain varieties of tomatoes (e.g. oblong tomatoes) which could not or did not need to be cored.

Section 2.2 - Varietal Type

53. The Committee clarified that the acronym "OP" referred to "Open Pollinated" tomatoes.

Section 2.3 - Styles

54. The Committee amended this Section by introducing additional provisions for "Styles" e.g. diced, sliced, wedges, pulp or crushed or chopped tomatoes and "Other Styles" originally included in the Labelling Section (Sections 8.2.2 and 8.2.3 respectively). It was recognized that these provisions belonged to the "Styles" Section and not to the Labelling (see para. 72). In addition, the layout of Codex standards for processed fruits and vegetables provided for a Section on "Styles" and "Other Styles" the latter having a standardized language to allow for additional styles.

Section 2.4 - Types of Pack

55. Some delegations questioned this Section being part of the Product Definition as the term "pack" was associated with the packaging material and not with the product itself. The Committee noted that the terms "solid pack" and "regular pack" did not refer to containers but the way the product was packaged namely with ("regular pack") or without ("solid pack") packing medium. The Committee requested that the translation of these terms into the other languages be revised to avoid possible confusion about their interpretation.

Section 3.1.1 - Basic Ingredients

56. The Committee amended the text to allow for flexibility as tomatoes might be packaged with or without packing medium by referring to "packing medium if appropriate" (see para. 55 above).

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[9] CX/PFV 04/22/5 and comments submitted by France, New Zealand, United States, Venezuela, and the WPTC (CX/PFV 04/22/5-Add.1); Australia (CRD 2); Uruguay (CRD 4); Canada (CRD 7); EC (CRD 10); Thailand (CRD 11); Malaysia (CRD 13); EC (CRD 14); and Cuba (CRD 20).

Section 3.1.2 - Packing Media

57. The Committee agreed to retain specific packing media provisions in the proposed draft Standard as preserved tomato was a unique product in its own.

58. In Section 3.1.2 (a), a footnote to the term "juice" was added to clarify that in this Standard the word "juice" did not match the definition of "fruit juice" (including tomato juice) of the Codex General Standard for Fruit Juices and Nectars (under development). In addition, the Committee agreed to apply the footnote throughout the proposed draft Standards for both processed tomato concentrates and preserved tomatoes. Some delegations indicated that the term "juice" should be consistently applied throughout Codex standards.

59. In Section 3.1.2 (b), the Committee agreed to refer to "tomato concentrate" as opposed to "tomato paste" as more appropriate.

Section 3.1.3 - Optional Ingredients

60. In Section 3.1.3 (c), the Committee agreed to delete the term "dry nutritive carbohydrate sweeteners" as the compounds specified were already covered by the Codex Standards for Sugars. In addition, it agreed to put the Section into square brackets as there was no agreement on the need to have sugars as ingredients due to quality problems associated with the determination of the natural tomato soluble solids in the raw material. Those delegations favouring the retention of this provision indicated that the Standard did not provide for any determination of Brix level that might be contrary to the optional addition of sugars

Section 3.2 - Quality Criteria

61. The Committee agreed to reorganize this Section to separate those quality parameters (e.g. colour, flavour, odour, etc.) from those parameters associated with defects in quality (e.g. whole/almost whole, objectionable core material, blemishes, extraneous plant material, peel, etc.) and their tolerances.

62. As a result, Sections 3.2.2 Colour and 3.2.3 Flavour were deleted and embedded under the title "Quality Criteria" and a new Section 3.2.1 Definition of Defects was established to group those provisions constituting defects in quality. The entire Section 3.2 was renumbered accordingly.

63. In addition, the Committee agreed to set mould count (Section 3.2.5.3) in accordance with the national legislation of the importing country and introduced square brackets around the Section for consistency with its previous decision in the proposed draft Codex Standard for Processed Tomato Concentrates (see para. 34). Some delegations indicated that the presence of mould might cause safety problems. The Committee noted that "mould could" was listed under the Quality Criteria as it was a quality parameter and thus it did not pose any safety concern. It was indicated that this parameter varied widely throughout the world and it was not possible to reach a compromise figure that could accommodate all Codex Members needs.

64. The Committee noted that instead of a pH value it would be preferable to refer to pH ranges to allow for flexibility in processing practices throughout the world. In addition, the Committee agreed to put this figure in square brackets for further discussion.

65. The Observer of the WPTC questioned the reorganization of this Section as it mirrored the current Standard in force (CODEX STAN 13-1981).

Section 3.2.7 - Lot Acceptance

66. The Committee agreed to align this Section with the corresponding one in the proposed draft Standard for Processed Tomato Concentrates (see paras. 35-36).

Section 4 - Food Additives

67. In accordance with its previous decision (see para. 18), the Committee agreed to list individual provisions for food additives for acidity regulators and firming agents.

Section 5 - Contaminants

68. The Committee aligned this Section with the corresponding one in the proposed draft Codex Standard for Processed Tomato Concentrates. The Committee noted that the "concentration factor" also applied to preserved tomatoes as they might use tomato concentrates in their elaboration (see para. 39).

Section 6 - Hygiene

69. The Committee amended Section 6.1 to refer to the Recommended Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 1-1989).

70. In Section 6.2 relating to compliance of the product with microbiological criteria, the Committee agreed to request the advice of the Codex Committee on Food Hygiene on whether or not sterilized products such as preserved tomatoes needed to comply with such requirement.

Section 7 - Weights and Measures

71. The Committee aligned this Section with the corresponding one in the proposed draft Codex Standard for Processed Tomato Concentrates where appropriate. In addition, the Committee agreed to put into square brackets the value of 50% of drained weight of the product in Section 7.1.4.1 for further discussion at its next Session. In this regard, some delegations proposed a value of 56% for drained weight to be considered. The Committee also agreed to bracket the text "provided that there is no unreasonable shortage in individual containers" in Section 7.1.4.2.

Section 8 - Labelling

72. The Committee agreed to transfer the styles listed under Section 8.2.2 and Section 8.2.3 "Other Styles" (see para. 54). In taking this decision, it retained the first sentence of Section 8.2.2 to cover labelling provisions for the styles listed in the Standard. In addition, it agreed to delete "pizza top" due to the wide range of tomato products being marketed as "pizza top" without a consistent definition of the type of products it applied to.

73. The delegation of Morocco suggested to delete Section 8.2.6 (renumbered Section 8.1.5) as it was already covered by previous sections of the Standard (e.g. Sections 8.2.2 (renumbered 8.1.2), 8.2.5 (renumbered 8.1.4), etc.).

74. In addition, the Committee included a Section on non-retail containers and applied the standardized language for consistency with other Codex standards for processed fruits and vegetables.

Section 9 - Methods of Analysis and Sampling

75. See paras. 100 - 104.

Status of the proposed draft Codex Standard for Canned (Preserved) Tomatoes

76. The Committee forwarded the newly named proposed draft Codex Standard for Preserved Tomatoes to the Codex Alimentarius Commission for preliminary adoption at Step 5 (see Appendix III).

PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES, including provisions for packing media (Agenda Item 4c)[10]

77. The delegations of France and the United States introduced CRD 16 which contained the revised text and the changes made by the Working Group (see para. 5). The Committee noted that the revised text had a simplified structure, easier to follow, with all provisions for a given vegetable consolidated in specific chapters. The structure of general provisions applying to all canned vegetables as well as the content of the document had not been modified.

78. The Committee agreed to use the revised text as contained in CRD 16 as a basis for further discussion. Some delegations were of the opinion that it was more appropriate to continue consideration of the original text.

79. The Committee also agreed that the Section on Contaminants should be aligned with the standardized language applied to Codex standards for processed fruits and vegetables (see para. 39).

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[10] CX/PFV 04/22/6 and comments submitted by Egypt, France, Iran, Kenya, United States, OEITFL (CX/PFV 04/22/6-Add.1); Australia (CRD 2); Spain (CRD 6); EC (CRD 10); Thailand (CRD 11); Malaysia (CRD 13); Peru (CRD 15); and Cuba (CRD 20). Report of the Working Group on Canned Vegetables (CRD 16).

Status of the proposed draft Codex Standard for Certain Canned Vegetables, including provisions for packing media

80. The Committee agreed to circulate the revised proposed draft Codex Standard for Certain Canned Vegetables, including provisions for packing media (see Appendix V) for comments at Step 3. It further agreed that a Working Group led by France, with the assistance of Canada, India, Italy, Malaysia, Peru, Spain, Thailand, Tunisia and the United States, would prepare a revised text based on the written comments submitted at the current Session as well as comments submitted at Step 3 for circulation, additional comments at Step 3 and consideration at its next Session (see para. 97).

PROPOSED DRAFT CODEX STANDARD FOR JAMS, JELLIES, AND MARMALADES (Agenda Item 4d)[11]

81. The Delegation of the United Kingdom introduced CRD 17 which contained the revised text along with a summary of the discussion and changes introduced by the Working Group (see para. 5) namely:

a. A reordering of Section 1 - Scope;

b. The inclusion of a reference to "sugars defined in Section 2.2" rather than "carbohydrate sweeteners" in the definition for extra jam/high fruit jam (Section 2.1);

c. The insertion of square brackets around the text of the fruits which cannot be mixed with others in the definition for extra jam and jelly (Section 2.1) ;

d. The addition of Roselle as a fruit in Sections 2.2 and 3.1.3;

e. The addition of appropriate fruit contents for certain tropical fruits where information was now available (Section 3.1.2 (a) and (b));

f. The addition of text regarding the mixing of fruits and the need to reduce the minimum fruit contents in proportion to the percentages used (Section 3.1.2 (a) and (b));

g. The insertion of square brackets around Section 3.3.1 (a) to question whether there was a need to define the raw material under the Section on Quality Criteria as this was normally referred to the end product;

h. Deletion of Section 3.3.1 (c) relating to sulphur dioxide as this was already provided for in the additives section and labelling provisions in the Codex General Standard for the Labelling of Prepackaged Foods;

i. The insertion of square brackets around the soluble solids limit of 60% to reflect that some countries present would prefer 65% while others worked to a lower limit of 60%, the lower limit was thereby retained to enable these products to exist.

82. The Committee had an exchange of views on the appropriateness of broadening the Scope to cover reduced sugars or low caloric products. Some delegations noted that the inclusion of this type of products would introduce major changes in the current text as they were different from regular jams, jellies, marmalades and therefore, their development implied new work for the Committee. In this regard, these delegations noted that, under the new procedure, proposals for new work should be accompanied with a project document. It was noted that the project document should be accompanied with a reference to the Criteria for the Establishment of Work Priorities. Other delegations noted that dietetic products were becoming increasingly popular on the market and that the Committee should look into the possibility of enlarging the Scope to cover these products. It was also considered the appropriateness for the CCPFV to undertake this type of work or whether it should be done by or in collaboration with the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU). The Committee agreed that it would be not advisable to enlarge the Scope at this time as there were still many issues related to the current text that needed to be solved before expanding the Scope to take account of such products.

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[11] CX/PFV 04/22/7 and comments submitted by Egypt, France, Iran, New Zealand, United States, Venezuela, and OEITFL (CX/PFV 04/22/7-Add.1); Australia (CRD 2); Uruguay (CRD 4); Nigeria (CRD 5); Spain (CRD 6); Canada (CRD 7); EC (CRD 10); Thailand (CRD 11); Malaysia (CRD 13); and Cuba (CRD 20). Report of the Working Group on Jams, Jellies and Marmalades (CRD 17).

83. The Committee agreed to use the revised text as contained in CRD 17 as a basis for further discussion. In this regard, the Committee noted that the Section on additives should be further revised as it contained some food additives that were not evaluated by JECFA[12] nor have a Codex INS[13] assigned. In addition, the Committee agreed that the Section on Contaminants should be aligned with the standardized language applied to Codex standards for processed fruits and vegetables (see para. 39).

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

84. The Committee agreed to circulate the revised proposed draft Codex Standard for Jams, Jellies, and Marmalades (see Appendix VI) for comments at Step 3. It further agreed that a Working Group led by the United Kingdom, with the assistance of Australia, Canada, EC, France, Malaysia, Switzerland, Tunisia, and United States would prepare a revised text based on the written comments submitted at the current Session as well as comments submitted at Step 3 for circulation, additional comments at Step 3, and consideration at its next Session (see para. 97).

PROPOSED DRAFT CODEX STANDARD FOR SOY SAUCE (Agenda Item 4e)[14]

85. The delegations of Japan and the Republic of Korea introduced CRD 18 which summarized the discussion and conclusion of the Working Group on Soy Sauce. The Committee noted that the elaboration of a Codex Standard for Soy Sauce was better covered by the Terms of Reference of the Codex Committee on Cereals, Pulses, and Legumes, namely: "*to elaborate worldwide standards for cereals, pulses, and legumes and their products*". The Committee acknowledged that this Committee had been adjourned *sine die* but it was currently working by correspondence on the finalization of the draft Codex Standard for Instant Noodles (see also para. 8).

86. The Committee had an exchange of views on the need to have a Codex Standard for Soy Sauce. Some delegations were of the view that standardization of soy sauce was not justified in the light of the Criteria for the Establishment of Work Priorities[15]. Other delegations were of the opinion that the work already done in the Committee should not be lost and that consideration of the need for a Standard for Soy Sauce and its further development should be given in the Codex Committee on Cereals, Pulses, and Legumes.

Status of the proposed draft Codex Standard for Soy Sauce

87. The Committee agreed to discontinue work on the standardization of soy sauce. In taking this decision, it agreed to recommend the Executive Committee of the Codex Alimentarius Commission to entrust this work to the Codex Committee on Cereals, Pulses, and Legumes on the understanding that, before proceeding further with the elaboration of the Standard, this Committee should have a full discussion on the need for a Codex Standard for Soy Sauce in the light of the Criteria for the Establishment of Work Priorities[15].

PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED CITRUS FRUITS (Agenda Item 4f)[16]

88. The Committee noted that not many comments had been received in relation to the text which had been revised by a Working Group led by the United States[17]. The Committee agreed that the Section on Contaminants should be aligned with the standardized language applied to Codex standards for processed fruits and vegetables (see para. 39) and that the Section on Food Hygiene should reference the Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 1-1989).

Status of the proposed draft Codex Standard for Certain Canned Citrus Fruits

89. The Committee agreed to forward the proposed draft Codex Standard for Certain Canned Citrus Fruits (see Appendix IV) to the Codex Alimentarius Commission for preliminary adoption at Step 5 (see para. 97).

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12 Joint FAO/WHO Expert Committee on Food Additives.

13 International Numbering System (INS).

14 CX/PFV 04/22/8 and comments submitted by China, Egypt, France, Indonesia, Malaysia, New Zealand, Switzerland, United States, ESI, and the IHVPC (CX/PFV 04/22/8-Add.1); Australia (CRD 2); Brazil (CRD 3); Nigeria (CRD 5); Canada (CRD 7); EC (CRD 10); Thailand (CRD 11); Philippines (CRD 12); and Report of the Working Group on Soy Sauce (CRD 18).

15 Codex Alimentarius Procedural Manual, 13th Edition, pages 68 – 69 (available only in English).

16 CX/PFV 04/22/9 and comments submitted by France, Malaysia, New Zealand, and Switzerland (CX/PFV 04/22/9-Add.1); Australia (CRD 2); Spain (CRD 6); Canada (CRD 7); EC (CRD 10); and Thailand (CRD 11).

17 ALINORM 03/27, para. 97(v).

90. However, the delegation of Spain expressed that adoption at Step 5 would imply the inclusion of some considerations as contained in CRD 6, in particular, classification and simplification of Section 3.1.2 (Packing Media).

PROPOSED FOR AMENDMENTS TO THE PRIORITY LIST FOR THE STANDARDIZATION OF PROCESSED FRUITS AND VEGETABLES (Agenda Item 5)[18]

91. The Committee considered proposals for addition to the Priority List from the EC, the United States and the International Olive Oil Council.

92. The Committee was recalled that the 27th Session of the Codex Alimentarius Commission had adopted the amendments to the Procedures for the Elaboration of Codex Standards and Related Texts[19] . Proposals for new work or revision of standards should be accompanied by a project document and the Executive Committee would review the status of development of draft standards at the end of a specified time-frame, normally no more than five years.

93. The Committee was informed that the 14th Session of the FAO/WHO Coordinating Committee for Asia forwarded the proposed draft Codex Standard for Ginseng Products to Step 5 for preliminary adoption by the Commission and further elaboration in the Codex step procedure, preferably by the Codex Committee on Processed Fruits and Vegetables, as an international standard.

94. In view of the heavy workload for its next Session, the Committee decided to maintain the priority list unchanged.

95. The Committee had an extensive discussion on the way to expedite and make more efficient its work. It was suggested to: have more frequent sessions of the Committee (every year or 18 months); extend the duration of the CCPFV sessions; limit the time of intervention of the delegations; make use of computer technology in sessions; simplify the format of standards to contain only important and essential information; to develop a standardized format for processed fruits and vegetables standards; have more active participation and contribution of members in the work of the working groups; hold meetings of working groups prior to or in CCPFV sessions; review and clarify the criteria for work prioritization in the Codex commodities committees.

96. The Committee acknowledged the financial implications of holding more frequent sessions and the busy schedule of the sessions of the Codex Alimentarius Commission and its subsidiary bodies for the next biennium. As regards the Criteria for work prioritization, the Committee recognized that the volume of international trade was one of the criteria to be considered in the prioritization of its work and that consumer protection from the point of health and fraudulent practices[15] should be adequately taken into account along with the work already undertaken by other international organizations. It also encouraged delegations to participate more actively in the working groups.

97. In order to progress on its Agenda and facilitate the discussion, the Committee agreed that its 23rd Session would have a duration of 6 days (from Monday to Saturday). In addition, it decided to convene prior to the Session (e.g. on Sunday) meetings of the working groups on i) Canned Citrus Fruits (United States, Malaysia and Spain); ii) Canned Vegetables (see para. 80); iii) Jams, Jellies and Marmalades (see para. 84); and, iv) Methods of Analysis and Sampling (United States of America). It was noted that working groups were open to all Codex Members and Observers.

Status of the Priority List for the Standardization of Processed Fruits and Vegetables

98. The Committee appended its Priority List for the Standardization of Processed Fruits and Vegetables to this report (see Appendix VII) for comments and continued consideration at its future sessions.

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18 ALINORM 03/27-App. VI and comments submitted in response to CL 2002/48-PFV by the International Olive Oil Council (CX/PFV 04/22/10); United States (CX/PFV 04/22/10-Add.1); International Olive Oil Council (CRD 8); and EC (CRD 10).

19 CX/PFV 04/22/2, para. 27.

OTHER BUSINESS (Agenda Item 6)

A) METHODS OF ANALYSIS AND SAMPLING FOR PROCESSED FRUITS AND VEGETABLES[20]

99. The Delegation of the United States introduced CRD 19 containing the recommendations of the Working Group on the Methods of Analysis and Sampling in regard to those methods of analysis listed in working document CX/PFV 04/22/11, Appendices I and II.

100. The Committee acknowledged that the Working Group performed the following tasks:

a. To provide further clarification on those methods of analysis which were temporarily endorsed or not endorsed by CCMAS (CX/PFV 04/22/11 Appendix I-Part 1 and Appendix II-Part 1);

b. To propose methods of analysis for the combinations of standard/provision (specification and/or labelling requirement) requiring them. In doing so, the Committee should clearly indicate if the revision corresponds to an update of the reference or to a new method which replaces the current one in force (CX/PFV 04/22/11, Appendix I-Part 2);

c. To identify which CAC/RMs should be deleted or replaced by the original reference available and report to CCMAS accordingly (CX/PFV 04/22/1, Appendix II-Part 2);

d. To incorporate the methods of analysis into the relevant standards under study.

101. The Committee agreed to the following:

a. Those methods of analysis, including Codex Recommended Methods (CAC/RMs), requiring further clarification by CCMAS would be sent to the next Session of the Codex Committee Methods of Analysis and Sampling together with the clarification provided by the Working Group (Appendix VIII-Part I).

   The methods of analysis for aqueous coconut products would be circulated for comments and further consideration at the next Session of the CCPFV (Appendix VIII-Part II).

b. Those methods of analysis, including Codex Recommended Methods (CAC/RMs), identified by the Working Group for the Codex commodity standards under consideration, would be inserted into the relevant Standards and circulated for comments and further consideration by the next Session of the CCPFV (see Appendices II through VI to this Report).

102. In addition, the Committee endorsed the recommendation of the Working Group to refer Sampling Plan 1 (Inspection Level I, AQL = 6.5) and Sampling Plan 2 (Inspection Level II, AQL = 6.5) of the revoked Codex Sampling Plans for Prepackaged Foods (CODEX STAN 233-1969) for inclusion as an Annex to the Codex standards for processed fruits and vegetables when applicable, as the recently adopted General Guidelines for Sampling Plans (CAC/GL 50-2004) did not provide any specific sampling plans for prepackaged foods (see para. 35).

103. With regard to the request of the CCMAS to provide comments on the *Use of Analytical Results: Sampling Plans, Relationship between the Analytical Results, the Measurement of Uncertainty, Recovery Factors, and Provisions in Codex Standards*, the Committee indicated that it did not have enough time to look into this matter but agreed that the CCMAS should continue its work to provide guidance for Commodity Committees in this area.

Status of the Methods of Analysis and Sampling for Processed Fruits and Vegetables

104. The Committee agreed to forward the relevant recommendations of the Working Group to the Codex Committee on Methods of Analysis and Sampling for endorsement as contained in paragraph 101(a) above (see Appendix VIII-Part I).

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[20] CX/PFV 04/22/11 and CX/PFV 04/22/11-Add.1. Report of the Working Group on Methods of Analysis (CRD 19).

B) STANDARD LAYOUT FOR CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES

105. The Committee agreed on the need to have a Standard Layout for Codex Standards for 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 Standard Layout should have a simple format and capture all essential provisions required in Codex commodity standards to facilitate its application by Codex Members.

106. The Committee agreed that the Codex Secretariat would prepare a Standard Layout for Codex Standards for Processed Fruits and Vegetables for consideration at its next Session.

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

107. The Committee was informed that the 23rd Session of the Codex Committee on Processed Fruits and Vegetables was tentatively scheduled to be held in the United States in 2006. The exact dates and venue would be decided between the United States and the Codex Secretariats.

ANNEX

SUMMARY STATUS OF WORK

SUBJECT	STEP	FOR ACTION BY	DOCUMENT REFERENCE (ALINORM 05/28/27)
Draft Codex Standard for Pickled Fruits and Vegetables	6	Working Group 23rd CCPFV	para. 22
Proposed draft Codex Standard for Processed Tomato Concentrates	5	28th CAC 23rd CCPFV	para. 48 and Appendix II
Proposed draft Codex Standard for Preserved Tomatoes			para. 76 and Appendix III
Proposed draft Codex Standard for Certain Canned Citrus Fruits			para. 89 and Appendix IV
Proposed draft Codex Standard for Certain Canned Vegetables (including Packing Media for Canned Vegetables)	3	Working Group 23rd CCPFV	para. 80 and Appendix V
Proposed draft Codex Standard for Jams, Jellies and Marmalades			para. 84 and Appendix VI
Proposed draft Codex Standard for Soy Sauce	discontinued	28th CAC	para. 87
Priority List for the Standardization of Processed Fruits and Vegetables	-----	23rd CCPFV	paras. 94 & 98 and Appendix VII
Methods of Analysis and Sampling for Processed Fruits and Vegetables	-----	26th CCMAS	para. 104 and Appendix VIII-Part I
		23rd CCPFV	para. 104 and Appendix VIII-Part II

LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS
LISTA DE PARTICIPANTES

Chairperson - President – Presidente

David Priester
Head, Standardization Section
Fruit and Vegetable Programs
Agricultural Marketing Service
U.S. Department of Agriculture
Room 2065, South Building
1400 Independence Avenue, SW
Washington DC 20250
United States
Phone: 202-720-2185
Fax: 202-720-8871
Email: david.priester@usda.gov

Vice Chairperson - Vice President - Vice Presidente

Shellee Anderson
Office of Nutrition, Labeling and Dietary Supplements
Center for Food Safety and Applied Nutrition
Food and Drug Administration
Harvey W. Wiley Federal Building
5100 Paint Branch Parkway
College Park MD 20740
United States
Phone: 301-436-1491
Fax: 301-436-2632
Email: shellee.anderson@cfsan.fda.gov

AUSTRALIA/AUSTRALIE

Dr Dennis Bittisnich
Manager, International Food Standards Section
Australian Government
Department of Agriculture, Fisheries and Forestry
GPO Box 858
Canberra, ACT, 2601
Australia
Phone: 61 2 6272 3053
Fax: 61 2 6272 4367
Email: Dennis.Bittisnich@daff.gov.au

Dr Mary Webb
Science Writer
Clarus Design
GPO Box 661
Canberra, 2601
Australia
Phone: 61 412 190 123
Fax:
Email: mary@clarusdesign.com

BRAZIL/BRESIL/BRASIL

Mr Hiroshi Arima
Division Chief
Ministry of Agriculture
Esplanada dos Ministerios
Bloco D, Anexo B, Sala 347
Brasilia, DF 70.043-900
Brazil
Phone: 61-218-2327
Fax:
Email: hiroshi@agricultura.gov.br

Ms Colleen Magro
Agricultural Trade Officer
Brazilian Embassy
3006 Massachusetts Avenue
Washington, DC 20008
United States
Phone: 202-238-2770
Fax: 202-238-2767
Email: cmagro@brasilemb.org

Mr Odilson Ribeiro e Silva
Chief of Division
Ministry of Agriculture
Esplanada dos Ministerios
Bloco D, Anexo B
Sala 422
Brasilia, DF 70.043-900
Brazil
Phone: 55-61-2182308
Fax: 55-61-224-3995
Email: odilson@agricultura.gov.br

Mr Jorge Waquim
Chief of Division
Ministery of Agriculture
Esplanada dos Ministerios
Bloco D, Anexo B
Brasilia -DF, 70.043-900
Brazil
Phone: 5561-2269799
Fax: 5561-2443995
Email: waquim@agricultura.gov.br

CAMEROON

Mr Michael Fon Ndeh
Cameroon
Phone:
Fax:
Email:

CANADA

Mr Jim Trenholm
A/Manager, Processed Products Section
Canadian Food Inspection Agency
159 Cleopatra Drive
Nepean, Ontario KIA OY9
Canada
Phone: 613-221-7151
Fax: 613-221-7294
Email: trenholmj@inspection.gc.ca

EGYPT

Dr Hussein Mansour
Agricultural Minister Plenipotentiary and Head of the Agricultural Office
Embassy of the Arab Republic of Egypt
3521 International Court, NW
Washington, DC 20008
Egypt
Phone: 202-966-2080
Fax: 202-895-5493
Email: hmkmansour@aol.com

EUROPEAN COMMUNITY

Mr Henri Belveze
Codex Coordinator
European Commission
101 Rue Froissard
Brussels, 1049
Belgium
Phone: 32-2-296-2812
Fax: 32-2-29-98566
Email: henri.belveze@cec.eu.int

Mr Marc Duponcel
Administrator, DG AGRI
European Commission
Rue de la Loi 130
Brussels, 1049
Belgium
Phone: 32-2-298-61-85
Fax: 32-2-295-3709
Email: marc.duponcel@cec.eu.int

FRANCE/FRANCIA

Ms Myriam Bloch
In charge of Processed Fruits and Vegetables
Federahon, FIAC
44 Rue d' Alesia
Paris, 75689 Paris Codex 14
France
Phone: 331-539-14469
Fax: 331-153-91-4470
Email: mbloch@adepale.org

Mr Bruno Cauquil
Control Officer
Ministere de l'Economie des Finances et de L'Industrie
1'Industrie DGCCRF
DGCCRF Teledoc 251
59, Boulevard Vincent Auriol
75703 Paris Cedex 13,
France
Phone: +33 1 44 97 31 43
Fax: +33 1 44 97 05 27
Email: bruno.cauquil@dgccrf.finances.gouv.fr

GEORGIA

Mr Vladimir Gugushvili
General Director
AromaProduct Ltd.
17 Guramishvili Avenue
Tbilisi 0192
Georgia
Phone: 995-32-61-33-56
Fax: 995-99-50-12-23
Email: v_gugushvili@aroma.ge

Mr George Jeiranashvili
Chief Specialist
Service for Food Products Expertise and Monitoring
#5 Mindeli St
Tbilisi 0186
Georgia
Phone: 99-32-32-14-35
Fax:
Email: G_Jeiranashvili@mail.com

Mr Levan Kalandadze
Chief Executive Officer
Georgian Fruits and Vegetables
5 Jikia St.
0186 Tbilisi
Georgia
Phone: 995-322-44300
Fax: 995-32-244300
Email:

Mr George Tkeshelashvili

First Deputy Minister
Ministry of Agriculture and Food of Georgia
Georgia
Phone:
Fax:
Email:

HUNGARY/HONGRIE/HUNGRIA

Dr Tibor Abraham
President
Association of Preserving Industries
13-15 Kuny D. Street
Budapest, 1012
Hungary
Phone: 36-1-202-5586
Fax: 36-1-355-5057
Email: t.abraham@kk.hu

Mr Jozsef Galambos
Secretary
Association of Preserving Industry
13-15 Kuny D. Street
Budapest, 1012
Hungary
Phone: 36-1-202-5586
Fax: 36-1-355-5057
Email: galambos.matisz@efosz.hu

Mr Jozsef Sos
Managing Director
Szelektroszerviz kft
Arpadfldi u. 124.
Budapest, H-1162
Hungary
Phone: 36-1-401-0570
Fax: 36-1-401-0571
Email: szelektroszerviz@axelero.hu

Mr Jozsef Sos

Manager General
GAZDAG Engineering Ltd.
Arpadfoldi u. 124
Budapest, 1162-H
Hungary
Phone: 36-1-401-0570
Fax: 36-1-401-0571
Email: gazdag@axelero.hu

Dr Gazdag Maria Sos Jozsefne

Chairman of Processed Fruit and Vegetable Committee
Szelektroszerviz, Ltd.
Arpadfoldi u. 124.
Budapest, H-1162
Hungary
Phone: 36-20-9621-403
Fax: 36-1-401-0571
Email: sosncfm@consact.hu

Dr K. Szerdahelyi

Ministry of Agriculture and Regional Development
PO Box 1
Budapest 55, H-1860
Hungary
Phone: 36-1-301-4000
Fax: 36-1-301-4808
Email: tanya.szerdahelyi@fvm.hu

INDIA/INDE

ANP Sinha
Joint Secretary
Ministry of Food Processing Industries
Governemnt of India
New Delhi, 11000
India
Phone: 2649-2475
Fax: 2649-7641
Email: ampsinhas@yahoo.com

INDONESIA/INDONESIE

Ms Tuti Irman
First Secretary
Embassy of Indonesia
2020 Massachusetts Avenue NW
Washington, DC 20036
United States
Phone: 202-775-5227
Fax: 202-775-5241
Email: tuti@embassyofindonesia.org

ITALY/ITALIE/ITALIA

Impagnatiello Ciro
Ministero delle Politiche Aricole e Forestali
Via Sallustiana 10
Roma, 00187
Italy
Phone: 0039-06-46656511
Fax: 0039-06-4880273
Email: ciroimpa@tiscali.it

Mr Carlo Leoni
Delegation Member
Ministry of Agriculture
c/o SSICA
v. 6 Tanara 31/A
Parma, U3100
Italy
Phone: 39 0521 785214
Fax: 39 0521 771829
Email: carloleoni@katamail.com

JAPAN/JAPON

Mr Naka Hironobu
Deputy Director
Food Safety and Consumer Policy Division
Food Safety and Consumer Affairs Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1, Kasumigaseki
Chiyoda
Tokyo, 100-8950
Japan
Phone: 81-3-5512-2291
Fax: 81-3-3597-0329
Email: hironobu_naka@nm.matt.go.jp

Mr Saka Harumi
Deputy Director
Food Safety and Consumer Policy Division
Food Safety and Consumer Affairs Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1, Kasumigaseki, Chiyoda-ku
Tokyo, 100-8950
Japan
Phone: 81-3-5512-2291
Fax: 81-3-3597-0329
Email: harumi_saka@nm.maff.go.jp

Mr Tanaka Hideo
Director, Senior Research Scientist
The Japan Soy Sauce Research Institute
11-3 Koami-Cho, Nihonbashi Chuo-ku
Tokyo, 104-0033
Japan
Phone: 81-3-3667-5240
Fax: 81-3-3224-2398
Email: htanaka@soysauce.ne.jp

Dr Tachi Hiroshi
Professor
Tokyo University of Agriculture
1-1-1, sakuragaoka Setagaya-ku
Tokyo, 156-8502
Japan
Phone: 03-5477-2394
Fax: 03-5477-2623
Email: tachi@nodai.ac.jp

Mr Takamatsu Hiroshi
Executive Corporate Officer, Deputy General Manager
Production Division of Kikkoman Corp.
110 Noda
Noda City, Chiba Pref. 278-0037
Japan
Phone: 04 71 23-5701
Fax: 04-7123-5714
Email: htakamatsu@mail.kikkoman.co.jp

Mr Nakashima Saburo
Director
Japan Soy Sauce Association
11-3 Koami-Cho Nihoncashi
Chuo-ku
Chuo-ku, Tokyo, 103-0016
Japan
Phone: 81-3-3224-2367
Fax: 81-3-3224-2398
Email: nakashima@soysauce.ne.jp

Dr Hirose Yoshio
Technical Advisor
The Japan Soy Sauce Research Institute
11-3 Koami-cho
Nihonbashi Chuo-ku
Tokyo, 104-0033
Japan
Phone: 81-3-3667-5240
Fax: 81-3-3667-6519
Email: hirose@soysauce.ne.jp

KENYA

Mr Andrew Mugumbi
Deputy Director of Agriculture/Horticulture
Ministry of Agriculture-Kenya
PO Box 30028
Nairobi,
Kenya
Phone: 254-2-271-6497/2718870
Fax: 254-2-271-6497
Email: andrewmugumbi@yahoo.com

Alice Akoth Okelo Onyango
Senior Standards Officer (Food and Agriculture Dept.)
Kenya Bureau of Standards
PO Box 54974
Nairobi, 00200
Kenya
Phone: 254-02-605490
Fax: 254-02-609660
Email: aliceO@kebs.org

KOREA, REPUBLIC OF/COREE, REPUBLIQUE DE LA/COREA, REPUBLICA DE

Mr Yong-Hwan Lee
Professional Researcher
Korea Food Research Institute
Food Standardization Department
San 46-1, Baekhyum-Dong, Bundang-ku.
Seongnam-Si.Gyeonggi-Do
Seongnam-Si, 463-746
Korea
Phone: 82-31-780-9153
Fax: 82-31-780-9114
Email: lyhwan@kfri.re.kr

Do-Hyung Choi
International Affairs Specialist
Food Standardization Dept/Korea Food
San 46-1
Baekhyen-dong
Seongnam, 463-746
Korea
Phone: 31-780-9306
Fax: 31-780-9264
Email: choi0313@kfri.re.kr

Soo-Jin Cho
Senior Researcher
Food Sanitation Council Codex Office
Ministry of Health and Welfare
Pharmaceutical & Food Policy Division
#1 Joong-Ang
Kwa-Chon, Kyung-Gi, 427-721
Korea
Phone: 82-2-504-6233
Fax: 82-2-504-1456
Email: chosoo93@mohw.go.kr

MALAYSIA/MALAISIE/MALASIA

Dr Noraini Mohd Khalid
Deputy Director
Malaysian Agricultural Research and Development Institute (MARDI)
P.O. Box 12301
Kuala Lumpur, 50774
Malaysia
Phone: 603-8943-7722
Fax: 603-8942-2906
Email: noramk@mardi.my

MOROCCO/MAROC/MARRUECOS

Najib Mikou
Development Manager
Autonomous Establishment for Control and Coordination of Exports 72 Angle Blvd.,
Med. Smiha and Rue Med. El Baamrani,
Casablanca, Morocco
Phone: +212-22-302802
Fax: +212-22-305168
Email: mikou@eacce.org.ma

NETHERLANDS/PAYS-BAS/PAISES BAJOS

Ms Caroline Feitel
Agricultural Trade Officer
Royal Netherlands Embassy
4200 Linnean Avenue, N.W.
Washington, DC 20008
The Netherlands
Phone: 202-274-2719
Fax: 202-244-3325
Email: caroline.feitel@minbuza.nl

O.T.J. Stiekema
Senior Policy Officer Trade and Industry
Ministry of Agriculture, Nature and Food Quality
PO Box 20401
The Hague, 2500 EK
The Netherlands
Phone: 0031-70-3784235
Fax: 0031-70-3786123
Email: O.T.J.Stiekema@minlnv.nl

Mr Kari Tollikko
Directorate General, Agriculture
Council of the European Union
The Netherlands
Phone: 32-02-285-7841
Fax: 32-02-285-6198
Email: kari.tollikko@consilium.eu.int

NIGERIA

Mrs Orji Orieji Gladys
Chief Regulatory Officer
National Agency for Food & Drug Administration & Control (NAFDAC)
23, Temple Road
Ikoyi, Lagos,
Nigeria
Phone: 01-265-0590
Fax: 01-269-3105
Email: oriejigorji@yahoo.com

Orieji Orji
Chief Regulatory Officer
National Agency for Food and Drug Administration & Control
23B Temple Road
Ikoyi - Lacros,
Nigeria
Phone: 01-269-0590
Fax:
Email: oriejiorji@yahoo.com

PERU/PEROU

Ms Alejandra Diaz
Consultant
Peruvian Comission for Export Promotion
Av. Republica de Panama 3647
San Isidro
Lima,
Peru
Phone: 511-222-1222
Fax: 511-421-3179
Email: acring@correo.dnet.com.pe

Adrian Campos Rivera
Manager
Private Consulting
Ca. Amsterdam
220 Los Portales de Javier Prado
Lima, Peru
Peru
Phone: 511-351-5682
Fax: 511-351-5682
Email: acringe@telelouica.com.pe

PHILIPPINES/FILPINAS

Lucio C. Manghinang, Jr.
Assistant Agriculture Attache
Embassy of the Philippines
1600 Massachusetts Avenu, NW
Washington, DC 20036
Philippines
Phone: 202-467-9423
Fax: 202-467-9421
Email: sonny.manghinang@verizon.net

PORTUGAL

Mr Mario Menezes
Economic Counselor
Embassy of Portugal
4620 North Park Avenue, Apt. 1208E
Chevy Chase, MD 20815
United States
Phone: 301-654-8834
Fax:
Email: embporteeon@attglobal.net

RWANDA

Dr Anastase Kimonyo
Chairman of Nationa Codex Committee
Rwandan National Codex Committee
c/o Kigali Institute of Science Technology and Management
Avenue de l'Armee
Kigali B.P. 3900
Rwanda
Phone: 00250-0853-2755
Fax: 00250-571924
Email: akimonyo@gmx.de

SPAIN/ESPAGNE/ESPAÑA

Dr Jesus Campos Amado
M Agricultura, Pesca Y Alimentacion
P Infanta Isabel, 1
Madrid, 28071
Spain
Phone: 34-91-347-5314
Fax: 34-91-347-5728
Email: jcamposa@mapya.es

Dr Ignacio Martin Paco
M Agricultura, Pesca Alimentacion
Po Infanta Isabel, 1
Madrid, 28071
Spain
Phone: 3491-347-5407
Fax: 3491-347-5407
Email: imartinp@mapya.es

SUDAN

Prof Suad Satti
Director
National Chemical Laboratories and Food Safety Coordinator
Federal Ministry of Health
P.O. Box 287
Khartoum, 287
Sudan
Phone: 249-09-122-94767, 249-183-779789
Fax: 249 183 795164
Email: satti10@hotmail.com

SWITZERLAND/SUISSE/SUIZA

Mrs Helen Falco
International Regulatory Affairs
Nestle
55 Avenue Nestle
Vevey, 1800
Switzerland
Phone: 41-21-924-42-13
Fax: 41-21-924-45-47
Email: Helen.falco@nestle.com

Mrs Franziska Wehrli
Food Safety, Legal Compliance, Section Foodstuff
Swiss Federal Office of Public Health
Schwarzenburgstrasse 165
Bern, 3003
Switzerland
Phone: 41-31-324-93-71
Fax: 41-31-322-95-74
Email: fraenzi.wehrli@bag.admin.ch

TANZANIA

Mr Daimon Jim Mwakyembe
Director
Tanzania Bureau of Standards
P.O. Box 9524
Dar Es Salaam,
Tanzania
Phone: 255-22-245 0298
Fax: 255-22-245 0959
Email: mwakyembe@tbs-tz.org

Mr Raymond Nicholaus Wigenge
Chief Food Inspector
Tanzania Food and Drugs Authority
PO Box 77150
Dar Es Salaam,
Tanzania
Phone: 255-744-286094
Fax: 255-22-2450793
Email: raywigenge@hotmail.com

THAILAND/THAILANDE/TAILANDE

Dr Chintana Oupadissakoon
Associate Professor
Department of Product Development
Faculty of Agro-Industry
Kasetsart University
50 Paholyothin Road
Bangkok, 10900
Thailand
Phone: 66-2-562-5009
Fax: 66-2-561-3456
Email: fagicto@ku.ac.th

Ms Korwadee Phonkliang
Standard Officer
National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
Rajadamnern Nok Avenue
Bangkok, 10200
Thailand
Phone: 662-280-3887
Fax: 662-280-3899
Email: korwadee@acfs.go.th

Mrs Linda Pleanprasert
Assistant Manager (Technical)
Thai Food Processor's Association
170/21-22 Ocean Tower 1 Building
9th Floor Ratchadaphisek Road
Klongtoey, Bangkok 10110
Thailand
Phone: 662-261-2684-6
Fax: 662-261-2996-7
Email: linda@thaifood.org

Mrs Oratai Silapanapaporn
Assistant Director, Office of Commodity and System Standards
National Bureau of Agricultural Commodity & Food Standards
Ministry of Agriculture & Cooperatives
Rajadamnern Nok Avenue
Bangkok, 10200
Thailand
Phone: 66-2-280-3887
Fax: 66-2-280-3899
Email: oratai@acfs.go.th

Mrs Malinee Subvanich
Advisor
Thai Food Processors' Association
170/21-22 9th Floor Ocean Tower 1 Bldg
Ratchadaphisek Road
Klongtoey, Bangkok 10110
Thailand
Phone: 662-261-2684-6
Fax: 662-261-2996-7
Email: thaifood@thaifood.org

Mr Prakarn Virakul
Minister Counselor (Agriculture)
Office of Agricultural Affairs
Royal Thai Embassy
1024 Wisconsin Avenue, NW
Washington, DC 20007
United States
Phone: 202-338-1543
Fax: 202-338-1549
Email: moacdc@erols.com

TRINIDAD AND TOBAGO/TRINIDAD Y TABAGO/TRINITE ET TOBAGO

Mr Stanley Teemull
Chief Chemist/Director, Food and Drugs
Chemistry/Food and Drug Division: Ministry of Health
92 Frederick Street
Port of Spain,
Trinidad
Phone: 868-623-5242
Fax: 868-623-2477
Email: cfdd@carib-link.net

TUNISIA

Ridha Mokni
Assistant Professor
National Institute of Nutrition and Food Technology
11, Rue Jebel Lakholar
1007 Tunis
Tunisia
Phone: 216-71-577-533, 216-71-577-533
Fax: 216-71-570-725
Email: ridha.mokni@rns.tn

UNITED KINGDOM/ROYAUME-UNI/REINO UNIDO

Dr Michelle McQuillan
Senior Scientific Officer
Food Labeling & Standards Division
Food Standards Agency
Room 115B Aviation House
125 Kingsway
London, WC2B 6NH
United Kingdom
Phone: 00-44-207-276-8159
Fax: 00-44-207-276-8193
Email:
michelle.mcquillan@foodstandards.gsi.gov.uk

UNITED STATES OF AMERICA/ETATS UNIS D'AMERIQUE/ESTADOS UNIDOS DE AMERICA

Mr Dorian LaFond
International Standards Coordinator
Office of the Deputy Administrator
AMS Fruit and Vegetable Programs
U.S. Department of Agriculture
Mailstop 0235
1400 Independence Avenue, SW
Washington, DC 20250
United States
Phone: 202-690-4944
Fax: 202-720-0016
Email: dorian.lafond@usda.gov

Mr Charles Cooper
Director
International Policy and Industry Outreach Branch
U.S. Food and Drug Administration
Center for Food Safety and Applied Nutrition
5100 Paint Branch Parkway
College Park, MD 20740
United States
Phone: 301-436-1714
Fax: 301-436-2618
Email: ccooper@cfsan.fda.gov

Mr Richard Boyd
Head, Defense Contract Inspection Section
Processed Products Branch
Fruit and Vegetable Programs
Agricultural Marketing Service
U.S. Department of Agriculture
1400 Independence Avenue, SW
Mail Stop 0247, Room 0726-South Building
Washington, DC 20250
United States
Phone: 202-720-5021
Fax: 202-690-1527
Email: richard.boyd@usda.gov

Mr Robert Conover
Assistant General Counsel
Kikkoman Foods, Inc.
Headquarters & Main Plant
Hwy 14 & Six Corners
PO Box 69
Walworth, WI 53184
United States
Phone: 262-275-1651
Fax: 262-275-9452
Email: rconover@kikkoman.com

Dr Dan Folmer

OFAS/CFSAN/FDA, HFS-265
US Food and Drug Administration
5100 Paint Branch Parkway
College Park, MD 20740
United States
Phone: 202-208-3148
Fax: 202-418-3030
Email: dfolmer@cfsan.fda.gov

Dr Mark Hepp
Consumer Saftey Oficer
OFAS/CFSAN/FDA, HFS-275
5100 Paint Branch Parkway
College Park, MD
United States
Phone: 202-418-3098
Fax: 202-418-3131
Email: mhepp@cfsan.fda.gov

Ms Jane Ho
Food Technologist
USDA/AMS/S&T/Technical Services Branch
Room 3521, Stop 0272
1400 Independence Ave., SW
Washington, DC 20250-0272
United States
Phone: 202-720-0042
Fax: 202-720-4631
Email: jane.ho@usda.gov

Mr Michael Jantschke
Senior Scientist, Microbiology
National Food Processors Association
6363 Clark Avenue
Dublin, CA 94568
United States
Phone: 925-551-4251
Fax: 925-833-8795
Email: mjantschke@nfpa-food.org

Dr Dennis Keefe
OFAS/CFSAN/FDA, HFS-255
5100 Paint Branch Parkway
College Park, MD
United States
Phone: 202-418-3113
Fax: 202-418-3131
Email: dkeefe@cfsan.fda.gov

Ms Kristin Kezar
International Trade Specialist
USDA Foreign Agricultural Service
1400 Independence Avenue, SW
Washington, DC 20250
United States
Phone: 202-720-9058
Fax:
Email: kristin.kezar@fas.usda.gov

Ms Ritu Nalubola
Staff Fellow/Food Technologist
Center for Food Safety and Applied Nutrition
Food and Drug Administration
5100 Paint Branch Parkway
College Park, MD 20740
United States
Phone: 301-436-2371
Fax: 301-436-2636
Email: ritu.nalubola@cfsan.fda.gov

Mr Richard Peterson
Inspector
Processed Products Branch
Fruit and Vegetable Programs
U.S. Department of Agriculture
1400 Independence Avenue, SW
Mail Stop 0247
Room 0726 - South Building
Washington, DC 20250
United States
Phone: 202-720-0042
Fax: 202-720-4631
Email: richard.peterson@usda.gov

Ms Peggy Rochette
Senior Director, International Policy
National Food Processors Association
1350 I Street, NW
Washington, DC 20005
United States
Phone: 202-639-5921
Fax: 202-639-5991
Email: prochet@nfpa-food.org

Mr Thomas Ronkin
French Interpreter
US Department of State
2401 E Street, NW
14th Floor
Washington, DC 20522
United States
Phone: 202-261-8756
Fax:
Email: ronkints@state.gov

Ms Chere Shorter
Marketing Specialist
Processed Products Branch
Fruit and Vegetable Programs
U.S. Department of Agriculture
1400 Independence Avenue, SW
Mail Stop 0247
Room 0726 - South Building
Washington, DC 20250
United States
Phone: 202-720-5021
Fax: 202-720-1527
Email: chere.shorter@usda.gov

Dr Robin Woo
Team Leader, International Policy
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration
5100 Paint Branch Parkway
HFS-550
College Park, MD 20740
United States
Phone: 301-436-2776
Fax: 301-436-2618
Email: rwoo@cfsan.fda.gov

Mr Ed Yates
Senior Vice-President
California League of Food Processors
980 Ninth Street, Suite 230
Sacramento, CA 95814
United States
Phone: 916-444-9260
Fax: 916-444-2746
Email: ed@clfp.com

INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS

ORGANISATIONS NON-GOUVERNEMENTALES INTERNATIONALES

ORGANIZACIONES INTERNACIONALES NO GUBERNAMENTALES

CARICOM REGIONAL ORGANIZATION FOR STANDARDS & QUALITY

Mr Roger Hinds
Technical Officer
Caricom Regional Organization for Standards & Quality (CROSQ)
"The Heritage" #35 Pine Road
Belleville
St. Michael,
Barbados
Phone: 246-437-8146
Fax: 246-437-4569
Email: ROGER.HINDS@CROSQ.ORG

INTERNATIONAL ASSOCIATION OF CONSUMER FOOD ORGANIZATIONS

Mr Bruce Silverglade
President
IACFO
1875 Connecticut Avenue, NW
Washington, DC 20009
United States
Phone: 202-232-9110
Fax:
Email:

Ms Amy Bryant
Research
IACFO
1875 Connecticut Ave NW
Washington, DC 20009
United States
Phone: 202-332-9110
Fax:
Email: abryant@cspinet.org

INTERNATIONAL FROZEN FOOD ASSOCIATION

Mr Robert Garfield
Sr. Vice President
International Frozen Food Association
2000 Corporate Ridge
Suite 1000
McLean, VA 22102
United States
Phone: 703-821-0770
Fax: 703-821-1350
Email: rgarfield@affi.com

INTERNATIONAL HYDROLYZED PROTEIN COUNCIL

Mr Robert Bursey
Director, Scientific and Regulator Affairs
Ajmomoto USA Inc.
1120 Connecticut Avenue, NW
Suite 1010
Washington, DC 20036
United States
Phone: 202-457-0284
Fax: 202-457-0107
Email: burseyb@ajiusa.com

Mr David Zollinger
Vice President
International Hydrolized Protein Council
2200 E. Eldorado Street
Decatur, IL 62525
United States
Phone: 217-421-2142
Fax: 217-421-2901
Email: dtzollinger@tlna.com

WORLD PROCESSING TOMATO COUNCIL

Mr Bernard Bieche
Observer
World Processing Tomato Council
c/o AMITOM
54 Avenue de Bonaventure
Avignon, 84000
France
Phone: 33-4-90-86-16-95
Fax: 33-4-90-27-06-58
Email: tomato@tomate.org

Mr John Mumford
Chairman Codex CTTE
World Processing Tomato Council
OPVG, 435 Consortium Court
London, Ontario N6E 2S8
Canada
Phone: 519-681-1875
Fax: 519-685-5719
Email: opvg@opvg.org

SPECIALS
AUTRES PARTICIPANTS
OTROS PARTICIPANTES

Dr Kenneth Clayton
Associate Administrator
Agricultural Marketing Service
U.S. Department of Agriculture
1400 Independence Avenue, SW
Room 3701, STOP 0201
Washington, DC
United States
Phone: 202-720-5115
Fax: 202-720-8477
Email: kenneth.clayton@usda.gov

Dr F. Scarbrough
US Manager for Codex
U.S. Codex Alimentarius Commission Office
Food Safety & Inspection Service
US Department of Agriculture
USDA
Room 4861 South Building
1400 Independence Ave., S.W.
Washington, DC 20250-3700
United States
Phone:
Fax: 202-720-3157
Email: ed.scarbrough@fsis@usda.gov

US SECRETARIAT
SECRETARIAT AMERICAIN
SECRETARIADO AMERICANO

Ms Ellen Matten
U.S. Codex Office
U.S. Department of Agriculture
Food Safety and Inspection Service
Room 4865
1400 Independence Avenue, SW
Washington, DC 20250
United States
Phone: 202-720-4063
Fax: 202-720-3157
Email: ellen.matten@usda.gov

Ms Edith Kennard
U.S. Department of Agriculture
Food Safety and Inspection Service
U.S. Codex Office
Room 4865
1400 Independence Avenue, SW
Washington, DC 20250
United States
Phone: 202-720-5261
Fax: 202-720-3157
Email: edith.kennard@usda.gov

JOINT FAO/WHO SECRETARIAT
SECRÉTARIAT MIXTE FAO/OMS
SECRETARIADO CONJUNTO FAO/OMS

Ms Gracia Brisco López
Food Standards Officer
Joint FAO/WHO Food Standards Programme
FAO
Viale delle Termi di Caracalla
Rome, 00100
Italy
Phone: 3906-5705-2700
Fax: 3906-5705-4593
Email: gracia.brisco@fao.org

Ms Annamaria Bruno
Food Standards Officer
Joint FAO/WHO Food Standards Programme
FAO
Viale delle Termi di Caracalla
Rome, 00100
Italy
Phone: 3906-5705-6254
Fax: 3906-5705-4593
Email: annamaria.bruno@fao.org

PROPOSED DRAFT REVISEDCODEX STANDARD FOR PROCESSED TOMATO CONCENTRATES

(AT STEP 5)

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 the 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 components.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Processed tomato concentrate is the product:

(a) Prepared by concentrating the juice[1] 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 natural tomato soluble solids[2], 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 tomato soluble solids.

2.2.2 "Tomato Paste" – Tomato concentrate that contains at least **[**24%**]** of natural tomato 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 Optional Ingredients

(a) Salt (sodium chloride);

(b) Spices and edible aromatic plants (such as basil leaf, etc.) and their natural extracts;

(c) Lemon juice (single strength or concentrated) used as an acidulant; and

(d) Water.

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1 In this Standard, "juice" must not be intended as the fruit juice (including tomato juice) as defined in Codex General Standard for Fruit Juices and Nectars (under development).

2 The concentrations are measured on the product without added salt.

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 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.

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]

3.2.2.1 *Mineral impurities*

The mineral impurity content does not exceed 0,1% of the natural soluble solids content.

3.2.2.2 *Lactic Acid*

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

[3.2.2.3 *Mould Count*

Mould count for processed tomato concentrates to be set according to the national legislation of importing countries.**]**

3.2.2.4 *pH*

The pH must be **[**below 4.6.**]**.

3.2.3 Classification of "Defectives"

A container that fails to meet the natural tomato soluble solids requirements, as set out in Sections 2.1.2 - 2.1.4, and/or one or more of the applicable quality requirements, as set out in Sections 3.2.1 through 3.2.5 should be considered a "defective".

3.2.4 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), 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 3.2.7 does not exceed the acceptance number (c) of the appropriate sampling plan with a AQL of 6.5 (see Annex); and

(b) maximum allowance for mould count is not exceeded (see Section 3.2.6).

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

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[3] Sand, soil and any other impurities insoluble in hidrocloric acid.

4. FOOD ADDITIVES

4.1 ACIDITY REGULATORS

INS No	Name of Food Additive	Maximum Level
330	Citric acid	Limited by GMP
331i	Sodium dihydrogen citrate	
331iii	Trisodium citrate	
332i	Potassium dihydrogen citrate	
332ii	Tripotassium citrate	
333	Calcium citrates	
380	Ammonium citrates	
380	Triammonium citrate	

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 The value of maximum levels must comply with natural total tomato solids content, with a reference value of 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 The value of maximum levels must comply with natural total tomato solids content, with a reference value of 4.5 for fresh fruit.

6. HYGIENE

6.1 It is recommended that the product 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), 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).

7. WEIGHTS AND MEASURES[4]

7.1. FILL OF CONTAINER

7.1.1 Minimum fill

Flexible containers shall be filled as full as commercially practicable having regard for the concentration of the product. When packed in rigid containers, the product shall occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 Classification of "Defectives"

A rigid container that fails to meet the requirement for minimum fill (90% container capacity) of Section 7.1.1 shall be considered a "defective".

7.1.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the requirements 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 a AQL of 6.5 (see Annex).

8. LABELLING

The product 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, Rev. 1-1991). In addition, the following specific provisions apply:

8.1 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 tomato soluble solids;

(b) "Tomato Paste" if the food contains not less than **[**24%**]** natural tomato soluble solids; or

(c) another denomination usually employed in the country accompanied by the declaration of the percentage of the natural tomato soluble solids.

8.2 DECLARATION OF THE PERCENTAGE OF NATURAL TOMATO SOLUBLE SOLIDS

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

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

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

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[4] The provisions in this Section do not apply to non-retail containers.

8.3 LABELLING OF NON-RETAIL CONTAINERS

Information for non-retail containers shall be given 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 mark is clearly identifiable with the accompanying documents.

9. METHODS OF ANALYSIS AND SAMPLING

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Lactic acid (Section 3.2.5)	≤ 1% of the natural tomato soluble solids	To be determined					
Mineral impurities	< 60 mg/kg based on diluted product of 8% solids	AOAC 971.33	Ashing	IV	E		AOAC 971.33 is already contained in CX/STAN 234/1999[5] for the determination of mineral impurities in jams, jellies, and marmalades and processed tomato concentrates (Type I and IV respectively). The 22nd CCPFV agreed to recommend CCMAS to replace CAC/RM 49-1972 with AOAC 971.33 for the determination of mineral impurities (sand) (see Appendix VIII-Part I of this Report).
Mould count	National Legislation	965.41	Howard mould count	I			**ADDITION**: The 22nd CCPFV noted that this method better suited to processed tomato concentrates.

[5] Codex Standards and related texts are available for downloading at: http://www.codexalimentarius.net/search/advancedsearch.do.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
pH		ISO 1842:1991 (proposed as Codex General Method for processed fruits and vegetables)	Potentiometry	IV			See Appendix VIII-Part I of this Report.
Sodium chloride		ISO 3634:1979 - chloride expressed as sodium chloride - (Codex General Method for processed fruits and vegetables)	Potentiometry	III	E		AOAC 971.27 (Codex General Method) is already contained in CX/STAN 234/1999[5] for processed tomato concentrates (Potentiometry, Type II). The 24th CCMAS[6] endorsed ISO 3634:1979 (Potentiometry, Type III) as a general method for the determination of sodium chloride in processed fruits and vegetables. **REPLACE/UPDATE:** The 22nd CCPFV suggested to replace AOAC 971.27 with ISO 3634:1979.

6 24th CCMAS (November 2002), ALINORM 03/23, App. VI/H1.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Tomato soluble solids	≥ 7	AOAC 970.59	Refractometry	I	E		AOAC 970.59 is already contained in CX/STAN 234/1999[5] for processed tomato concentrates.
Fill of containers		CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	I	E		See CX/STAN 234/1999[5]

ANNEX

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

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

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

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

PROPOSED DRAFT REVISED CODEX STANDARD FOR PRESERVED TOMATOES

(AT STEP 5)

1. SCOPE

This Standard applies to the product as defined in Section 2 and offered for direct consumption including for catering purposes or for repackaging if required. This Standard also applies to product when indicated as being intended for further processing. The Standard does not include dried tomatoes and the 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 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 substantially sound;

(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. **[**The tomatoes shall have had the stems and calices removed and shall have been cored, except where the internal core is insignificant as to texture and appearance.

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 regularly thickness;

(c) ***Wedges***: tomatoes cut into four roughly equal parts;

(d) ***Pulp or crushed or chopped***: tomatoes crushed, ground or pulped when appropriate.

8.2.3 Any other presentation of the product shall be permitted provided that the product:

(a) is sufficiently distinctive from other forms of presentation laid down in this Standard;

(b) meets all relevant requirements of this Standard, including requirements relating to limitations on defects, drained weight, and any other requirements in this Standard which are applicable to that style in the Standard 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 if appropriate to the product, as defined in Section 3.1.2

3.1.2 Packing Media

Preserved tomatoes may be packed in the following packing media:

(a) ***Juice***[1]: the unconcentrated, undiluted liquid obtained from ripened tomatoes or from the residue resulting from preparing tomatoes for canning;

(b) ***Tomato puree or Tomato concentrate***: as described in the Codex Standard for Tomato concentrates;

(c) ***Pulp***: skinless ground tomatoes;

(d) ***Water***: only in unpeeled preserved tomatoes.

3.1.3 Optional Ingredients

(a) Spices, aromatic plants (such as basil leaves) and natural extracts of these and seasonings excluding tomato flavouring;

(b) Salt (sodium chloride);

(c) **[**When acidifying agents are used, sucrose, dextrose and dried glucose syrup, as listed in Codex Standard for Sugars (CODEX STAN 212 – 1999, Amd. 1 – 2001) with specific labelling.**]**

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[1] In this Standard, "juice" must not be intended as the fruit juice (including tomato juice) as defined in Codex General Standard for Fruit Juices and Nectars (under development).

3.2 QUALITY CRITERIA

Preserved tomatoes shall have normal colour characteristics 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 a material loss of placenta.

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.

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 shall 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^2 aggregate area per kg of total contents.

3.2.3.2 ***Blemishes***

Not more than 3.5 cm^2 aggregate area per kg of total contents.

3.2.3.3 ***Mould Count***

[Mould count for processed preserved tomatoes to be set according to the national legislation of importing countries.**]**

3.2.3.4 ***pH***

Maximum level for pH must be **[**4.5**]**.

3.2.4 Classification of "Defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 shall be considered a "defective".

3.2.5 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004) a lot should be considered as meeting the applicable quality requirements referred to in Section 3.2.4 when:

(a) the number of "defectives", as defined in Section 3.2.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5 (see Annex II);

(b) the maximum allowance for mould count is not exceeded (see Section 3.2.4).

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

4. FOOD ADDITIVES

4.1 ACIDITY REGULATORS

INS No	Name of Food Additive	Maximum Level
330	Citric acid	Limited by GMP
331i	Sodium dihydrogen citrate	
331iii	Trisodium citrate	
332i	Potassium dihydrogen citrate	
332ii	Tripotassium citrate	
333	Calcium citrates	
380	Ammonium citrates	
380	Triammonium citrate	

4.2 FIRMING AGENTS

INS No	Name of Food Additive	Maximum Level
327	Calcium lactate	Limited by GMP
333	Calcium citrate	
341i	Mono-calcium phosphate	
509	Calcium chloride	
516	Calcium sulphate	
578	Calcium gluconate	

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 The value of maximum levels must comply with natural total tomato solids content, with a reference value of 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 The value of maximum levels must comply with natural total tomato solids content, with a reference value of 4.5 for fresh fruit.

6. HYGIENE

6.1 It is recommended that the product 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 Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 1-1989), 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)

7. WEIGHTS AND MEASURES[2]

7.1 FILL OF CONTAINER

7.1.1 Minimum Fill

Flexible containers shall be filled as full as commercially practicable having regard for the concentration of the product. When packed in rigid containers, the product shall occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

When preserved tomatoes are packed in glass containers, the water capacity shall be reduced by 20 ml before the percentage referred to in the previous paragraph is calculated.

7.1.2 Classification of "Defectives"

A rigid container that fails to meet the requirement for minimum fill (90% container capacity) of Section 7.1.1 shall be considered a "defective".

7.1.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the requirements 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 a AQL of 6.5 (see Annex II).

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.

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

8. LABELLING

The product covered by the provisions of this Standard shall be labelled in accordance with the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991). In addition, the following specific provisions apply:

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[2] The provisions in this Section do not apply to non-retail containers.

8.1 NAME OF THE PRODUCT

8.1.1 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.

8.1.2 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.

8.1.3 If an added ingredient, as defined in Section 3.2.3, gives characteristics flavour to the product, the name of this ingredient "with X" must be stated on the label as to be easily discernible by the consumer.

8.1.4 If the product is produced in accordance with the other styles provision (Section 2.4), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

[8.1.5 The following may be stated on the label:

(a) ***the type***: "solid pack" if the pack complies with Section 2.5.2;

(b) ***the packing material***: "juice" or other, if the packing medium complies with Section 3.1.2.**]**

8.2 LABELLING OF NON-RETAIL CONTAINERS

Information for non-retail containers shall be given 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 mark is clearly identifiable with the accompanying documents.

9. METHODS OF ANALYSIS AND SAMPLING

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Calcium		AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	II	E		AOAC 968.31 is already contained in CX/STAN 234/1999[3] for canned green peas (Type II). The 24th CCMAS[4] endorsed AOAC 968.31 (Type II) as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970. **The 22nd CCPFV noted that this provision is not in new draft.**
Fill of containers		CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	I	E		See CX/STAN 234/1999[3]

[3] Codex Standards and related texts are available for downloading at: http://www.codexalimentarius.net/search/advancedsearch.do.
[4] 24th CCMAS (November 2002), ALINORM 03/23, App. VI/H1.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Drained weight		CAC/RM 37-1970				Include the following text changes as recommended by the Working Group on Methods of Analysis and Sampling: - The instructions omit two important steps: (1) the weighing of the full container; and (2) the weighing of the dry empty container. Both weights are required to calculate the percentage drained weight (solid content) and/or the percent liquid.	**ADDITION:** Add the recommendation to CAC/RM 37-1970
Mould count	National legislation	AOAC 945.90	Howard mould count	I		**Replace AOAC 965.41 with AOAC 945.90**	CODEX STAN 234/1999[3] listed AOAC 965.41 (Type I) for determination of mould count in canned tomatoes. **REPLACE**: The 22nd CCPFV changed AOAC 965.41 with AOAC 945.90 as this method better suited to preserved tomatoes

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
pH	≤ 4.5	ISO 1842:1991 (proposed as Codex General Method for processed fruits and vegetables)	Potentiometry	IV			See Appendix VIII-Part I of this Report.

ANNEX I

CAC/RM 37/1970[5]
DETERMINATION OF DRAINED WEIGHT
(for preserved tomatoes only)

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[6].

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 20º 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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5 See the Section on Methods of Analysis and Sampling and indicate how to introduce the recommendation of the 22nd CCPFV as per weighing of (1) full and (2) dry empty containers.

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

ANNEX II

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

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

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

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

PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED CITRUS FRUITS

(AT STEP 5)

1. SCOPE

This Standard applies to 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

2.1.1 Canned citrus fruit is the product:

(a) prepared from washed, sound and mature ripe grapefruit, mandarin oranges, sweet orange varieties, or pummelo conforming to the characteristics of the fruit of:

(i) *Citrus paradise* Macfadyen;

(ii) *Citrus reticulate* Blanco (including all the suitable commercial varieties for canning.)

(iii) *Citrus sinensis* (L.), Osbeck (including all the suitable commercial varieties for canning)

(iv) *Citrus Maxima Merr.* or *Citrus grandis* (L.)

(b) packed with water or other suitable liquid packing medium[1], nutritive sweeteners[1], sugars as defined in the Codex Standard for Sugars (CX-STAN 212-1999, Amd. 1-2001), other nutritive sweeteners[1] such as honey, suitable spices or flavouring ingredients appropriate to the product, and other authorized ingredients indicated in Section 3.3 and

(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 to pale green - produced from pale yellow or pale green fleshed pummelo.

2.3 STYLES

2.3.1 Canned grapefruit, sweet orange varieties, or pummelo may be packed as either:

(a) **Sections or Segments** - consists of whole fruit segments in which a segment's length is at least 75% (or 50% for canned pummelo) of the apparent length of the original segment. (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".); or

(b) **Broken Sections or Broken Segments** - consists of fruit segments that do not satisfy Section 2.3.1(a).

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[1] **Secretariat Note**: In submitting comments, Governments and interested international organizations in observer status with Codex should pay due attention to the decisions taken by the Committee in the General Considerations on Codex Standard for Processed Fruits and Vegetables (paras. 11 - 18).

2.3.2 Canned mandarin oranges may be packed as:

(a) **Whole Segment Style** - consists of fruit segments which are practically intact and also retain their original form but may be split just slightly.

(b) **Broken Segment Style** - consists of portions of segments which retain at least one half of the original apparent size, or which are large enough to remain on a screen having 12 mm square openings, formed by a wire of 2 mm diameter.

(c) **Pieces Style** - consists of portions of segments that are large enough to remain on a screen having 8 mm square openings formed by a wire of 2 mm diameter.

2.3.3 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 in the Standard which are applicable to that style in the Standard 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 3.4.6.

(b) **Mixed Sizes** - A mixture of two or more single sizes.

2.4.2 Compliance with single size designation

2.4.2.1 ***Classification of "Defectives"***

Any sample unit or container that does not meet the count and uniformity requirements of Section 2.4.1 shall be considered a "defective" for size classification. In the determination of compliance with size classifications, broken segments are disregarded.

2.4.2.2 ***Lot Acceptance***

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the criteria for a uniform size designation when the number of "defectives" as defined in Section 2.4.2.1 does not exceed the acceptance number (c) of the appropriate sampling plan with a AQL of 6.5 (see Annex).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Canned citrus fruit as defined in Section 2 and liquid packing media[1] appropriate to the product.

3.1.2 Packing Media[1]

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

3.1.2.1 Canned grapefruit and canned pummelo may be packed in any one of the following:

(a) ***Water*** - in which water or a mixture of water and juice (less than 50% juice) is the liquid packing medium[1].

(b) ***Juice*** - in which grapefruit juice, pummelo juice, or any other citrus juice is the sole liquid packing medium[1] and to which no water has been added directly or indirectly.

(c) ***Juice and Water*** - in which grapefruit juice, pummelo juice or any other citrus juice and water are combined as a liquid packing medium[1] with not less than 50% juice.

(d) ***Syrup*** - in which water, juice, or juice and water is combined with nutritive sweetener(s)[1] as a liquid packing medium[1] and are classified on the basis of cut-out strength as specified below:

Liquid Media[1]	Brix Measurement
- Slightly sweetened syrup	not less than 12° Brix
- Slightly sweetened grapefruit juice, pummelo juice or any other citrus juice	same as above
- Slightly sweetened grapefruit juice , pummelo juice or any other citrus juice	same as above
- Light syrup	not less than 16° Brix
- Lightly sweetened grapefruit juice , pummelo juice or any other citrus juice	same as above
- Lightly sweetened grapefruit juice, pummelo juice or any other citrus juice and water	same as above
- Heavy syrup	not less than 18° Brix
- Heavily sweetened grapefruit juice, pummelo juice or any other citrus juice	same as above
- Heavily sweetened grapefruit juice, pummelo juice or any other citrus juice and water	same as above

3.1.2.2 Canned mandarin oranges may be packed in any one of the following:

(a) ***Water*** - in which water is the sole packing medium[1];

(b) ***Water and fruit juice(s)*** - in which water and mandarin orange juice, or water and any other fruit juice (singly or in combination) are combined to form the packing medium[1].

(c) ***Fruit juice*** – in which one or more fruit juice is the sole packing medium[1].

(d) ***With nutritive sweetener(s)***[1] - any of the foregoing packing media[1] (a) through (c) may have one or more of the following nutritive sweeteners[1] added: sucrose, invert sugar syrup, dextrose, fructose, fructose syrup, dried glucose syrup, glucose syrup, invert sugar.

3.1.2.2.1 Classification of packing media[1] when nutritive sweeteners[1] are added to canned mandarin oranges:

(a) When nutritive sweeteners[1] are added to mandarin orange juice or other fruit juices, the liquid media[1] shall be not less than 14° Brix and shall be classified on the basis of the sample strength as follows:

(i) Lightly sweetened (name of fruit) juice(s) - not less than 14° Brix

(ii) Heavily sweetened (name of fruit) juice(s) - not less than 18° Brix

(b) When nutritive sweeteners[1] are added to water or water and mandarin orange juice or water and other fruit juices the liquid media[1] shall be classified on the basis of the cut-out strength as follows:

(i) **Basic syrup strengths**:

- Light syrup - not less than 14° Brix
- Heavy syrup - not less than 18° Brix

(ii) **Optional packing media**[1]:

- Slightly sweetened water - not less than 10° Brix but less than 14° Brix
- Extra light syrup - not less than 10° Brix but less than 14° Brix
- Extra heavy syrup - more than 22° Brix

3.1.2.3 Canned sweet orange varieties may be packed in any one of the following:

(a) ***Water*** - in which water or a mixture of water and [fruit/orange] juice (containing less than 50% juice) is the liquid packing medium[1].

(b) ***Juice*** – in which orange juice, or any other citrus juice, is the sole liquid packing medium[1] and to which no water has been added directly or indirectly.

(c) ***Juice and Water*** - in which orange juice and water are combined as a liquid packing medium[1] containing not less than 50% juice.

(d) ***Syrup*** - in which water, [fruit/orange] juice, or [fruit/orange] juice and water is combined with nutritive sweetener(s)[1] as a liquid packing medium[1] and are classified on the basis of cut strength as specified below:

Liquid Media[1] Brix Measurement:

(i) Slightly sweetened syrup - not less than 12° Brix
(ii) Slightly sweetened orange juice - same as above
(iii) Slightly sweetened orange juice and water - same as above
(iv) Light syrup - not less than 16° Brix
(v) Lightly sweetened orange juice - same as above
(vi) Lightly sweetened orange juice and water - same as above
(vii) Heavy syrup - not less than 18° Brix
(viii) Heavily sweetened orange juice - same as above
(ix) Heavily sweetened orange juice and water - same as above

3.1.2.4 Compliance with packing medium[1] Brix requirements shall be determined on average, but no container may have a Brix value lower than that of the next category below.

3.1.3 Optional Ingredients (Canned Grapefruit only)

- Spices.

3.2 QUALITY CRITERIA

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

3.2.1 Colour

(a) **For canned grapefruit and canned pummelo**:

The colour shall be typical of grapefruit of the colour-type concerned which has been properly prepared and properly processed. The liquid packing medium[1] shall be reasonably clear except when it contains fruit juice in compliance with the Codex General Standard for Fruit Juices and Nectars (under development).

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

The colour of the segments shall be a rich yellow to orange, typical colour of properly prepared and properly processed fruit, free from any brown tinge and the liquid packing medium[1] shall be reasonably clear except when it contains juice.

(c) **For canned sweet orange varieties**:

The colour of the segments shall be a uniform, bright orange color typical of properly prepared and processed fruit and the packing liquid shall be reasonably clear except when it contains fruit juice in compliance with the Codex General Standard for Fruit Juices and Nectars (under development).

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

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

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

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

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.

3.2.4 Wholeness

For canned grapefruit, canned pummelo or canned sweet orange varieties only - In the style of 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 shall not be present in amounts greater than the following limitations:

(i) The total surface covered by membrane shall not exceed 20 square centimetres per 500g. of total contents; and

(ii) Developed seeds shall not exceed 4 per each 500g. of total contents. (A developed seed is defined as a seed which measures more than 9mm. 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 and pieces (as defined in 2.3.2) (Whole segment style)	10% m/m
- Pieces (as defined in 2.3.2) (Broken segment style)	15% m/m
- Membrane (Aggregate area)	7 cm/100 g (based on sample average)
- Fibre strands (Aggregate length)	5 cm/100 g (based on sample average)
- Seeds (that measure more than 4.0 mm in any dimension)	1/100 g (based on sample average)

3.2.7 Classification of "Defectives"

For canned grapefruit, 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 Section 3.4 (except those based on averages) shall be considered a "defective".

3.2.8 Lot Acceptance

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

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the applicable quality requirements referred to in Section 3.4, when the number of "defectives", as defined in Section 3.4.7 does not exceed the acceptance number (c) of the appropriate sampling plan with a (AQL-6.5) (see Annex).

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

The lot must comply with requirements of Section 3.4.6 which are based on sample average.

4. FOOD ADDITIVES

4.1 FOR CANNED GRAPEFRUIT

4.1.1 Acidity Regulators

INS No.	Name of Food Additive	Maximum Level
330	Citric Acid	Limited by GMP

4.1.2 Firming Agents

INS No.	Name of Food Additive	Maximum Level
509	Calcium Chloride	0.035% calcium by wt. in final product, singly or in combination, derived from added calcium salts
327	Calcium Lactate	

4.1.3 Flavours

Natural and artificial flavouring are limited by GMP.

4.2 FOR CANNED MANDARIN ORANGES

4.2.1 Acidity Regulators

Any acidity regulator listed in Table 3 of the Codex General Standard for Food Additives or listed in food category 04.2.2.4 (Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds) in Tables 1 and 2 of the Codex General Standard for Food Additives.

4.2.2 Anti-Clouding Agents

INS No.	Food Additive	Maximum Level
461	Methyl Cellulose	10 mg/kg

4.3 FOR CANNED SWEET ORANGE VARIETIES AND CANNED PUMMELO:

4.3.1 Acidity Regulators

Any acidity regulator listed in Table 3 of the Codex General Standard for Food Additives or listed in food category 04.2.2.4 (Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds) in Tables 1 and 2 of the Codex General Standard for Food Additives.

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, Rev. 4-2003), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 1-1989), 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 shall be well filled with the product (including packing medium[1]) which shall occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill (90% container capacity) of Section 7.1.1 shall be considered a "defective".

7.1.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the requirements 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 a (AQL-6.5) (see Annex).

7.1.4 Minimum Drained Weight

(a) **For canned grapefruit, canned sweet orange varieties, and canned pummelo** - 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 mandarin oranges** - The drained weight of the product shall 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.

(i) Whole segment style 55%

(ii) Broken segment and Pieces styles 58%

7.1.4.1 Lot Acceptance

The requirements for minimum drained weight shall 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, Rev. 1-1991). In addition, the following specific provisions apply:

8.2 NAME OF THE PRODUCT

The name of the product shall be “grapefruit”, “mandarin oranges”, “pummelo”, or “oranges”, as defined in Section 2.1.1.

8.2.1 For Canned Grapefruit and Canned Pummelo:

(a) The name of the product shall include the colour type “pink” if the grapefruit or pummelo is pink;

(b) The following shall be included as part of the name or in close proximity to the name of the product

(i) **The style**: "sections” or “segments"; or “broken sections” or "broken segments", as appropriate;

(ii) **The packing medium**[1] **as appropriate**:

- "water",
- "grapefruit juice", or “pummelo juice”
- "grapefruit juice and water" or “pummelo juice and water”
- "slightly sweetened syrup",
- "light syrup",
- "heavy syrup",
- “slightly sweetened grapefruit juice” or “slightly sweetened pummelo juice”
- “lightly sweetened grapefruit juice” or “lightly sweetened pummelo juice”
- “heavily sweetened grapefruit juice” or “heavily sweetened pummelo juice”
- “slightly sweetened grapefruit juice and water” or “slightly sweetened pummelo juice and water”
- “lightly sweetened grapefruit juice and water” or “lightly sweetened pummelo juice and water”
- “heavily sweetened grapefruit juice and water” or “heavily sweetened pummelo juice and water”

8.2.2 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, 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**;

(iii) **Pieces**.

(b) In the case of mixed sizes, such size designation shall be declared in close proximity to the style designation, e.g. "mixed sized whole segments".

(c) The packing medium[1] shall be declared as part of the name or in close proximity to the name as described below:

Packing Medium[1]	**Name Description**
- "In water" or - "Packed in water"	When packing medium[1] is composed of water or water and one or more citrus juices in which water predominates
- "In mandarin orange juice" or - "In (name of fruit) juice".	When the packing medium[1] is composed solely of mandarin orange juice, or any other single fruit juice
- "In (names of fruits) juice" or - "In fruit juices" or - "In mixed fruit juices".	When the packing medium[1] is composed of two or more fruit juices, which may include mandarin orange juice
- "Lightly sweetened (name of fruit) juice" or - "Heavily sweetened (name of fruit) juice" or - "Lightly sweetened citrus or fruit juices" or - "Heavily sweetened citrus or mixed fruit juices" As appropriate	When nutritive sweeteners[1] are added to mandarin orange juice or other fruit juices
- "Light syrup" or - "Heavy syrup" or "Slightly sweetened water" or - "Extra light syrup" or "Extra heavy syrup" As appropriate	When nutritive sweeteners[1] are added to water, or water and a single fruit juice (including mandarin orange juice), or water and two or more fruit juices, in which there is less than 50% juice by volume
- "Mandarin orange juice and water" or - "(name of fruit) juice(s) and water"	When the packing medium[1] contains water and mandarin orange juice or water and one or more fruit juice(s), in which the fruit juice comprises 50% or more by volume of the packing medium[1], it shall be designated to indicate the preponderance of such fruit juice

8.2.3 For Sweet Orange Varieties

(a) The following shall be included as part of the name or in close proximity to the name of the product:

- **The style**: "sections" or "segments"; or "broken sections" or "broken segments", as appropriate;

Packing Medium[1]	Name Description
- "In water" or - "Packed in water"	When packing medium[1] is composed of water or water and one or more citrus juices in which water predominates
- "In orange juice" or - "In (name of fruit) juice"	When the packing medium[1] is composed solely of orange juice, or any other single fruit juice
- "In (names of fruits) juice" or - "In fruit juices" or - "In mixed fruit juices"	When the packing medium[1] is composed of two or more fruit juices, which may include orange juice
- "Lightly sweetened (name of fruit) juice" or - "Heavily sweetened (name of fruit) juice" or - "Lightly sweetened citrus or fruit juices" or - "Heavily sweetened citrus or mixed fruit juices" As appropriate	When nutritive sweeteners[1] are added to orange juice or other fruit juices
- "Light syrup" or - "Heavy syrup" or - "Slightly sweetened water" or - "Extra light syrup" or - "Extra heavy syrup" As appropriate	When nutritive sweeteners[1] are added to water, or water and a single fruit juice (including orange juice), or water and two or more fruit juices, in which there is less than 50% juice by volume
- "Orange juice and water" or - "(name of fruit) juice(s) and water"	When the packing medium[1] contains water and orange juice or water and one or more fruit juice(s), in which the fruit juice comprises 50% or more by volume of the packing medium[1], it shall be designated to indicate the preponderance of such fruit juice.

8.3 OTHER STYLES

If the product is produced in accordance with the other styles provision (Section 2.3.3), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

9. METHODS OF ANALYSIS AND SAMPLING

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Calcium		AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	II	E		AOAC 968.31 is already contained in CX/STAN 234/1999[2] for canned green peas (Type II). The 24th CCMAS[3] endorsed AOAC 968.31 (Type II) as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970.
Drained weight		AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving	I	E		See CX/STAN 234/1999[2]
Fill of containers		CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	I	E		See CX/STAN 234/1999[2]

[2] Codex Standards and related texts are available for downloading at: http://www.codexalimentarius.net/search/advancedsearch.do.
[3] 24th CCMAS (November 2002), ALINORM 03/23, App. VI/H1.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Packing medium		AOAC 932.12 ISO 2173:1978 (Codex General Method for processed fruits and vegetables)	Refractometry	I	E		The 24th CCMAS[3] endorsed AOAC 932.12 and ISO 2173:1978 (Type I) as general method for processed fruits and vegetables.

ANNEX

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

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

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

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

PROPOSED DRAFT CODEX STANDARD FOR CERTAIN CANNED VEGETABLES

(AT STEP 3)

1. SCOPE

This Standard applies to certain canned vegetables, as defined in Section 2 below 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.

2. DESCRIPTION

2.1 PRODUCT DEFINITIONS

Canned vegetables are the products:

1) prepared from fresh (barring mature processed peas) or frozen **[**canned vegetables**]** and sound vegetables, as defined in Section 2.2, 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.

   This Standard does not cover vegetables that are lacto-fermented, pickled or preserved in vinegar.

2) packed with a suitable liquid packing medium as indicated in Section 3.2 (Packing Media) below.

   The product may be designated as "vacuum packaged" when 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 closed 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 with a capacity higher than 2550 ml.

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 CARROTS

2.2.1 Product Descriptions

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.

2.2.2 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 27mm[1].

[1] CL 1997/1- PFV - Annex XXIV : 18 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[2] and a maximum diameter of 50 mm.

7) ***Diced***: Carrots cut into cubes with an approximately 12 mm[3] 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.

2.2.3 Uniformity

1) ***Length***: for carrots defined in 2.3.1 (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 defective.

2.2.4 Defects and Allowances

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

DEFECTS	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 1000g of total content in the container

[2] CL 1997/1-PFV – Annex XXIV : 10 mm
[3] CL 1997/1-PFV – Annex XXIV: 12,5 mm

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

2.3 GREEN BEANS OR WAX BEANS

2.3.1 Product Descriptions

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

2.3.2 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.
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 measured 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%
(2) Very small	8.0	10%
(3) Small	9.0	15%
(4) Medium	10.5	25%
(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.

2.3.3 Defects and Allowances

Definitions of Defects

1) Tough Strings:

   A bean is recognised as being stringy if one of the strings on each side of the pod resists being pulled.

2) 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.

3) Harmless plant material:

Parts of the plant (bean) and innocuous foreign vegetal matter are considered as vegetal debris.

4) Pieces of beans:

Pieces of beans whose length is lower than 20 mm (for cans of whole beans).

5) 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).

2.3.4 Defect Tolerances

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 a AQL-6.5 (see Annex II), 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
(2) Very small French beans	3	3	3	3	3	10
(3) Small French beans	3	3	3	3	3	10
(4) Small wax beans	3	3	3	3	3	10
(5) Medium French beans	3	3	4	4	4	15
(6) Medium wax beans	3	3	4	4	4	15
(7) French 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

2.4 ASPARAGUS

2.4.1 Product Descriptions

The name "asparagus" stands for the product prepared from the edible portions of peeled or unpeeled stems of varieties of asparagus complying with the characteristics of Asparagus officinalis L.

2.4.2 Styles

Asparagus comes in the following shapes and sizes:

1) Long shoots or long spears: tip and adjoining part of the spear measuring at most 18 cm and at least 12 cm[4] in length.

2) Shoots or spears: tip and adjoining part of the spear measuring at most 12 cm and at least 7cm[5] in length.

3) Asparagus tips: upper extremity (bud) and adjoining part of spears measuring at most 10.5cm[6] and at least 4 cm in length.

4) Asparagus cut with tips or without tips: spears cut widthways into chunks with or without tips, measuring at most 6 cm[7] and at least 2 cm in length. This type of presentation shall comprise at least 20% with tips.

5) Cut asparagus: spears cut widthways into chunks measuring at most 6 cm in length. Tips may be present.

Asparagus are canned as follows in terms of their colour:

1) 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.

2) White asparagus with violet or green tips: asparagus, "short" asparagus and "tips" of 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% of their length.

3) 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% of their length.

4) 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		

[4] CL 1997/1-PFV-Annex XXIII : 15 cm.
[5] CL 1997/1-PFV-Annex XXIII : at most 15 cm, and at least 10,5 cm in length.
[6] CL 1997/1-PFV-Annex XXIII : 10,5 cm.
[7] CL 1997/1-PFV-Annex XXIII : 6 cm.

2.4.3 Uniformity

1) ***Length***: the specifications required in Section 2.3.3 regarding the types of presentation of asparagus are met when:

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

   (b) The length of the units is reasonably uniform. By "reasonably uniform", on the basis of the average of the samples, the following is meant:

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

      (ii) 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.

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

   (a) When a product is said to be, presented or sold as complying with the names of the individual sizes of Section 2.3.3, 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.

   (b) Any container or sampling unit, which exceeds the tolerance of 25% laid down above, should be considered "defective" as far as sizing is concerned.

2.4.4 Defects and Allowances

Defects and Allowances	Maximum
(1) 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.
(2) Foreign matter (such as sand, soil or substances from soil).	The product should be practically free of such defects.
(3) 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
(4) Hollow asparagus (hollow units to the extent that they seriously impair the product aspect), and fibrous, tough asparagus.	10% in number
(5) 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
(6) 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% in number

<table>
<tr><th>Defects and Allowances</th><th>Maximum</th></tr>
<tr><td colspan="2">Total of all the defects described in (1), (4), (5), (6), for the following types of presentation:</td></tr>
<tr><td colspan="2"><table>
<tr><th>Defects and Allowances</th><th>Maximum</th></tr>
<tr><td>Asparagus</td><td>15% in number</td></tr>
<tr><td>Short Asparagus</td><td>15% in number</td></tr>
<tr><td>Asparagus tips</td><td>15% in number</td></tr>
<tr><td>Asparagus cut with tips</td><td>20% in number</td></tr>
<tr><td>Cut Asparagus</td><td>25% in number</td></tr>
</table></td></tr>
</table>

2.5 GREEN PEAS

2.5.1 Product Descriptions

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".

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)
GREEN PEAS	
(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
SWEET GREEN PEAS	
(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 7.

* 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.

2.5.2 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:

Defects	Maximum Limits (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]

2.6 PALM

2.6.1 Product Descriptions

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 "shoots of palms" (or "hearts or shoots of 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.

Wild Palm and Cultivated Palm

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[13].
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[8].
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[8].

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[8].

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 shoots" 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[9].

"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 [10] 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 of the unit perpendicularly to the longitudinal axis.

2.6.2 Uniformity

1) Length: the specifications laid down in Section 2.3.5 concerning the types of presentation of palm are met when:

   (a) The most frequent length of the sample units remains within the limits laid down for the category of type of presentation.

   (b) The length of units is reasonably uniform. On the basis of the average of samples and subject to compliance with the provisions of Section 2.3.5, "reasonably uniform" means that the gap between the length of all the units and the predominant length does not exceed approximately ±**[**5**]** ±**[**10**]** mm and the gap between the thickness of all the units and the predominant thickness does not exceed **[**5**] [**10**]** mm.

2) Diameter: When a product is said to be, presented or sold as complying with the individual grade provisions laid down in Section 2.3.5.2, 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.

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8 CL 1997/1-PFV-Annex XXIII : at least 15 mm and at most 35 mm

9 CL 1997/1-PFV-Annex XXIII: 15 mm maximum

10 CL 1997/1-PFV- Annex XXIII : 120 mm maximum

2.6.3 Defects and Allowances

Wild Palms and Cultivated Palms

1) Definition of Defects

(a) Defective texture: hard or fibrous and/or excessively soft texture, which seriously impairs product edibility.

(b) Mineral impurities: such as sand, gravel or other soil elements.

(c) Damaged units: units presenting colour defects, scars and grazes, abrasions and other imperfections of the same type which seriously impair product appearance.

(d) Mechanical damage: broken or split units, fragments or detached pieces, which seriously impair product appearance.

(e) Abnormal colour: colour considerably different from the typical colour of the product.

(f) Physiological defects: for "palm hearts" and "palm hearts in rounds", units with palm tree stem apical meristems

Defects	Weight Percentage with respect to the drained weight product
(a) Defective texture	10
(b) Mineral impurities	0.1
(c) Damaged units	15
(d) Mechanical damage	10
(e) Abnormal colour	10
(f) Physiological defects	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

2.6.4 Mature Processed Peas

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 macrosporum sub-variety.

2.6.5 Defects and Allowances

Mature Processed Peas

Defects	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.	0.5m/m

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

2.7 SWEET CORN

2.7.1 Product Descriptions

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 grains or relatively whole grains, packed with a creamy liquid derived from the corn grains, so as to obtain a product with a creamy consistency.

2.7.2 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 of Defects	Tolerances m/m (%)
(1) Foreign vegetal matter	Fragments of cobs, awns, shucks, foreign grains or a different variety of sweet corn.	0.2
(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 defective.

2.8 BABY CORN OR YOUNG CORN

2.8.1 Product Descriptions

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.

2.8.2 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.

Cob Size	Length (cm)	Diameter (cm)
(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

2.8.3 Uniformity

Baby Corn or Baby Corn Cob

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

2.8.4 Defects and Allowances

(1) Whole Baby Corn

Defects	Maximum limit in drained weight(simple size 1 kg)
(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%

(2) Cut Baby Corn

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

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

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

3.2 PACKING MEDIA

3.2.1 Any of the following packing media may be used. The liquid covers the vegetables or does not exceed 20% of the total net weight of the product when packed such that a high vacuum is created in the containers.

3.2.1.1 Water: eventually with added salt.

3.2.1.2 Water with added salt, and/or sugars and/or other sweeteners[11] 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.

3.3 OPTIONAL INGREDIENTS

1) Vinegar;
2) Garnish composed of one or several vegetables within the limit of 10% of the net drained weight of the product;
3) Extract of mint;
4) Oil[12].

3.4 QUALITY CRITERIA

3.4.1 Flavour, Texture and Colour

3.4.1.1 Canned vegetables shall have normal flavour, odour, and colour 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.

3.4.1.2 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.

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[11] In submitting comments, Governments and interested international organizations in observer status with Codex should pay due attention to the decisions taken by the Committee in the General Considerations on Codex Standard for Processed Fruits and Vegetables (paras. 11 - 18).

[12] Proposed by Thailand.

3.4.2 Uniformity

3.4.2.1 *Lot Acceptance*

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the applicable quality requirements about individual grades referred to in Section 3.4.2 when the number of "defective" units does not exceed the acceptance number (c) of the appropriate sampling plan with a AQL-6.5 (see Annex II).

3.4.3 Defects and Allowances

Canned vegetables should be substantially free from defects. Certain common defects should not be present in amounts greater than the following limitations.

3.5 CLASSIFICATION OF "DEFECTIVES"

A container that fails to meet one or more of the applicable quality requirements, as set out in Section 3.4 (except those based on sample average) should be considered as "defective".

3.6 LOT ACCEPTANCE

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the applicable quality requirements referred to in Section 3.4 when:

1) for those requirements which are not based on averages, the number of defectives, as defined in Section 3.4, does not exceed the acceptance number (c) of the appropriate sampling plan with a AQL-6.5 (see Annex II); and
2) the requirements of Section 3.4, which are based on sample averages, are complied with.

3.7 OTHER STYLES

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

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

4. FOOD ADDITIVES

4.1 FLAVOUR ENHANCERS

INS No.	Name of Food Additive	Maximum Level
621	Monosodium glutamate	**[**Limited by GMP (for use in canned peas, canned green beans and canned wax beans)**]**

4.2 FIRMING AGENTS

INS No.	Name of Food Additive	Maximum Level
509	Calcium chloride	Limited by GMP (for use in canned mature processed peas)
578	Calcium gluconate	

4.3 COLOURS

INS No.	Name of Food Additive	Maximum Level
102	Tartrazine	200 mg/kg (for use in canned mature processed peas, singly or in combination)
133	Brilliant blue FCF	

4.4 COLOUR RETENTION AGENTS

INS No.	Name of Food Additive	Maximum Level
386	Disodium ethylene-diamine-tetra-acetate (EDTA)	30 mg/kg (for use in 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)

4.5 ACIDITY REGULATORS

INS No	Name of Food Additive	Maximum Level
260	Acetic acid, glacial	Limited by GMP
261(i)	Potassium acetate	
262(i)	Sodium acetate	
263	Calcium acetate	
270	Lactic acid (L-, D-, and Dl)	
300	Ascorbic acid (L-)	
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	
334	Tartaric acid (L(+)-)	Numerical use level should be developed for tartrates
335 (i)	Monosodium tartrate	
335 (ii)	Disodium tartrate	
336(i)	Monopotassium tartrate	
336(ii)	Dipotassium tartrate	
337	Potassium sodium tartrate	
575	Glucono-delta-lactone	
296	Malic acid (DL-)	Limited by GMP (for use in canned asparagus and canned baby corn)

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, Rev. 4-2003), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 1-1989), 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)

6.3 To the extent possible in good manufacturing practice, the product shall be free from objectionable matter.

6.4 When tested by appropriate method of sampling, the product:

(1) shall be free from micro-organisms capable of development in the product under normal conditions of storage, and

(2) shall not contain any substance originating from micro-organisms in amounts, which may represent a hazard to health.

6.5 Canned vegetables have to undergo a heat treatment in order to destroy Clostridium Botulinum spores.

7. WEIGHTS AND MEASURES

7.1 FILL OF CONTAINERS

7.1.1 Minimum Fill

The container should be well filled the product (including packing medium) which should occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled. This provision does not apply to vacuum packaged vegetables.

7.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill (90% container capacity) of Section 7.1.1 should be considered a "defective".

7.1.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the requirements 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 a AQL-6.5 (see Annex II).

7.2 MINUMUM DRAINED WEIGHT

The drained weight of the product should not be 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[13].

[13] 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

7.2.1 Carrots

Type of Presentation	Minimum drained weight (%)
Whole carrots	56.5 (average diameter>22mm) 62.5 (average diameter < 22mm)
Halves, Baby whole carrots	62.5
Lengthways portions	52.00
Diced, double-size diced	62.5
Strips	56.5
Quarters, pieces, rounds	56.5
Chunk or pieces	56.5
Finger cuts	62.5

7.2.2 Green Beans and Wax Beans

Type of presentation	Minimum drained weight (%)
Whole	50
Other presentations, except strips	54
Strips	50

7.2.3 Asparagus

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

7.2.4 Sweet Corn

Type of presentation	Minimum drained weight (%)
With a liquid packing medium	66 [61]
Vacuum packaged or without a liquid packing medium	67

7.2.5 Green Peas and sweet green peas

Type of presentation	Minimum drained weight (%)
Extra small	66%
Very small	
Small	
Medium	62.5%
Large	
Not graded	

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

7.2.6 Palm

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

7.2.7 Baby Corn

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

7.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the requirements of Section 7.1.4 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 7.2 should be considered a "defective") does not exceed the acceptance number (c) of the appropriate sampling plan with a AQL-6.5 (see Annex II).

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, Rev. 1-1991). 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 Section 2.2.

8.2.2 When the vegetables are sized, the styles and the size (or sizes when sizes are mixed), as defined in Section 2.3, shall be declared as part of the name or in close proximity to the name.

8.2.3 For asparagus, colour has to be included into the styles defined in paragraph 2.2.3. For white asparagus, the words "not peeled" shall be declared if that is the case.

8.2.4 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".

8.2.5 For sweet corn, the word "white" is declared part of the name when white variety is used.

8.2.6 Other styles – If the product is produced in accordance with the other styles provision (Section 2.4), the label contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer

8.2.7 The type of packaging ("vacuum packaged") shall be declared as part of the name or in close proximity to the name, when products are canned as defined in Section 2.1 (1)).

8.2.8 If an added ingredient does alter the flavour characteristic of the product, the name of said ingredient should be affixed to the commercial designation of the product or in close proximity. WELLCOME

8.3 LABELLING OF NON-RETAIL CONTAINERS

Information for non-retail containers shall be given 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 mark is clearly identifiable with the accompanying documents.

9. METHODS OF ANALYSIS AND SAMPLING

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Alcohol insoluble solids (canned green peas)	≤ 21 %	AOAC 938.10	Gravimetry	I	E		AOAC 938.10 is already contained in CX/STAN 234/1999[14] for canned green peas (Type I). The 22nd CCPFV agreed to recommend CCMAS to replace CAC/RM 47-1972 with AOAC 938.10 (see Appendix VIII-Part I of this Report).
Calcium (canned green peas)		AOAC 968.31 (Codex General Method for processed fruits and vegetables)	Complexometry Titrimetry	II	E		AOAC 968.31 is already contained in CX/STAN 234/1999[14] for canned green peas (Type II). The 24th CCMAS[15] endorsed AOAC 968.31 (Type II) as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970.
Drained weight		AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving	I	E		See CX/STAN 234/1999[14]

[14] Codex Standards and related texts are available for downloading at: http://www.codexalimentarius.net/search/advancedsearch.do.
[15] 24th CCMAS (November 2002), ALINORM 03/23, App. VI/H1.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Mineral impurities (canned palmito)	≤0.1% m/m	ISO 762:1982 (confirmed 1992)	Gravimetry	I	E		ISO 762:1982 is already contained in CX/STAN 234/1999[14] for canned palmito (Type I). AOAC 971.33[14] is already contained in CX/STAN 234/1999[1] for the determination of mineral impurities in jams, jellies, and marmalades and processed tomato concentrates (Type I and IV respectively). The 22nd CCPFV agreed to recommend CCMAS to replace CAC/RM 49-1972 with AOAC 971.33 for the determination of mineral impurities (sand) (see Appendix VIII- art I of this Report).
Total solids (canned mature processed peas)	≥ 19.5% of the weight of distilled water at 20°C which the sealed container will hold when completely filled	AOAC 964.22	Vacuum oven	I	E		AOAC 964.22 is already contained in CX/STAN 234/1999[14] for mature processed peas (Type I). The 24th CCMAS[15] endorsed AOAC 920.51 (Type I) as a general method for the determination of total solids in processed fruits and vegetables.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Fill of containers		CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	I	E		See CX/STAN 234/1999[14]
Method for distinguishing type of peas		CAC/RM 48-1972				**RETAIN**	**RETAIN**
Proper fill in lieu of drained weight (canned peas only)		CAC/RM 45-1972				**RETAIN**	**RETAIN**

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Tough string test		CAC/RM 39-1970				This will remain the same until the French Method is reviewed. [Text for French Method which has not appeared in previous literature for review by CCPFV and CCMAS is as follows: The percentage of tough string beans is determined on the drained weight of the product. For containers ≤ 850ml all beans must be tested. For containers > 850ml, the test will be made on 500g of drained beans. Each bean will be broken in its middle, between two fingers. Keep only the beans when appears a tough string longer than 3cm. Weigh the beans for which a tough string has been detected. Calculate the percentages of the tough string beans in relation to the drained weight.]	**RETAIN:** CAC/RM 39-1970 **SUGGEST to DELETE:** The "French Method" that appears in square brackets as the test is not measurable due to differences in interpretation of a what is a "Tough String".

ANNEX I

CAC/RM 39-1970[16]
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.

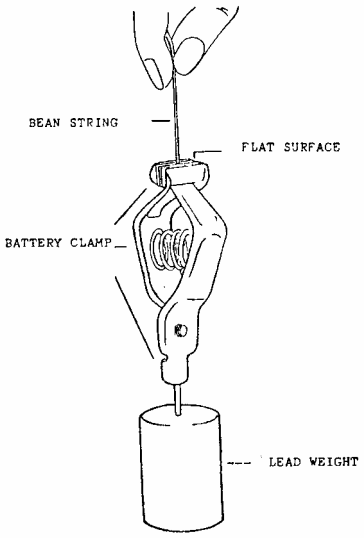
4.4 If the string supports the 250 g assembly for at least five seconds consider the bean unit as containing tough string. If the string breaks in less than five seconds, retest the broken parts that are 13 mm or longer to determine if such portions are tough.

4.5 Weigh the bean units which contain tough strings.

5. Calculation and Expression of Results

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

Figure 1 - Tough String Tester for Green or Wax Beans



[16] See the Section on Methods of Analysis and Sampling and indicate how to introduce the recommendation of the 22nd CCPFV into the method.

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 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 l.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.

ANNEX II

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

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

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

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

PROPOSED DRAFT CODEX STANDARD FOR JAMS, JELLIES AND MARMALADES

(AT STEP 3)

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 i.e. bakery jam; or

(b) products prepared with non-carbohydrate sweeteners[1] and which are clearly intended or labelled as intended for diabetic or dietetic use; or

(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 extra jam as set out in this Standard.

2. DESCRIPTION

2.1 PRODUCT DEFINITIONS

<table>
<tr><th>Product</th><th colspan="2">Definition</th></tr>
<tr><td>Jam[2]</td><td colspan="2">is the product brought to a suitable gelled consistency, made from the fruit pulp or fruit puree or both, of one or more kinds of fruit, which is mixed with sugars and/or other carbohydrate sweeteners[1] such as honey, with or without the addition of water.</td></tr>
<tr><td rowspan="4">Extra Jam /High Fruit Jam[2]</td><td colspan="2">is the product brought to a suitable gelled consistency, made from the un-concentrated fruit pulp of one or more kinds of fruit, which is mixed with sugars as defined in Section 2.2, with or without the addition of water.</td></tr>
<tr><td colspan="2">The following extra jams may be obtained entirely or in part from the un-concentrated fruit puree of the fruits concerned.
(a) rosehip extra jam,
(b) seedless blackberry, blackcurrant, blueberry, raspberry and redcurrant extra jams.</td></tr>
<tr><td colspan="2">[The following fruits may not be mixed with others in the manufacture of extra jam:</td></tr>
<tr><td>Apples
Clingstone plums
Cucumbers
Grapes
Melons</td><td>Pears
Pumpkins
Tomatoes
Water-melons]</td></tr>
</table>

[1] In submitting comments, Governments and interested international organizations in observer status with Codex should pay due attention to the decisions taken by the Committee in the General Considerations on Codex Standard for Processed Fruits and Vegetables (paras. 11 - 18).

[2] Citrus jam and extra jam may be obtained from the whole fruit cut into strips and/or sliced.

<table>
<tr><th>Product</th><th colspan="2">Definition</th></tr>
<tr><td rowspan="3">Jelly and Extra Jelly</td><td colspan="2">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 sugars as defined in Section 2.2, with or without the addition of water.</td></tr>
<tr><td colspan="2">[In the manufacture of extra jelly, the following fruits may not be mixed with others:</td></tr>
<tr><td>Apples
Clingstone plums
Cucumbers
Grapes
Melons</td><td>Pears
Pumpkins
Tomatoes
Water-melons]</td></tr>
<tr><td>Marmalade</td><td colspan="2">is the product brought to a suitable gelled consistency made from the whole fruit, fruit pulp, puree, juice, aqueous extract or peel of citrus fruits mixed with sugars as defined in Section 2.2, with or without the addition of water.</td></tr>
<tr><td>Jelly marmalade</td><td colspan="2">is the product described under marmalade from which all the insoluble solids have been removed but which may or may not contain a small proportion of thinly cut peel.</td></tr>
</table>

2.2 OTHER DEFINITIONS

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

Product	Definition
Fruit	(a) Fresh, substantially sound, wholesome and clean which is 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. (b) Shall also be taken to include the edible parts of tomatoes, trimmed rhubarb stems, carrots, sweet potatoes cucumbers pumpkins and melons and water melons with seeds stem and rind removed. (c) In the case of ginger this should be taken to mean the edible root of the ginger plant (Zingber officinale) in a fresh or preserved state. Ginger may be dried or preserved in syrup. (d) In the case of Roselle (*Hibiscus sabdariffa* L.) this should be taken to mean the edible calyx of the Roselle plant in afresh, frozen or preserved state
Fruit Pulp	The edible part of the whole fruit, if appropriate, less the peel, skin, seeds, pips and similar which may have been sliced or crushed but which has not been reduced to a puree.
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.

Product	Definition
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 C*itrus L.* family.
Sugars	(a) Sugars as defined in the Codex Alimentarius on Sugars; (b) Sugars extracted from fruit (fruit sugars); (c) Fructose syrup; (d) Brown sugar; (e) Honey.

2.3 PRESENTATION

Any other presentation of the product is permitted provided that it:

(a) Is sufficiently different from those described in this Standard;

(b) meets all the requirements of this Standard; and

(c) is adequately described on the label to avoid confusing or misleading the consumer with products covered by this Standard.

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) – (c) below.

These are exclusive of any added sugar or optional ingredients. In the cases of jelly and extra jelly the quantities where appropriate shall be calculated after deduction of the weight of water used in preparing the aqueous extracts.

(b) Sugars as defined in Section 2.2.

3.1.2 Fruit Content

(a) *Jam and Jelly*

Jam and Jelly, as defined in Section 2.1, shall be produced such that the quantity of the 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, ginger, guava, jackfruit and sappota;
- 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.

(b) ***Extra Jam and Extra Jelly***

Extra jam and Extra Jelly, 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.

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

(c) ***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 finished product shall be not less than:

- 20% of which the quantity obtained from the endocarp shall not be less than 7.5% of the finished product.

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.

3.1.3 Optional Ingredients

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

Ingredient	PERMITTED IN
Fruit juice or fruit juice concentrate	Jam only
Red fruit juice	Jam and extra jam made from gooseberries, plums, raspberries, redcurrants, rosehips, rhubarb or strawberries only
Red beetroot juice	Jam, jelly made from gooseberries, plums, raspberries, redcurrants, roselles or strawberries
Leaves of *Pelargonium odoratissimum*	Jam, extra jam, jelly and extra jelly made from quince
Essential oils	In all products
Citrus fruit juice and citrus peel	In all products including marmalades
Butter, margarine or other edible oils and fats (used as antifoaming agents), alcoholic drinks, nuts, herbs and spices, vinegar.	In all products

3.2 SOLUBLE SOLIDS

The soluble solids content for the finished products defined in Section 3.1.2(a) – (c) shall in all cases not be lower than **[**60%**]**. This shall be determined by refractometer subject to a tolerance of ± 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 sugars have been replaced wholly or partially by sweeteners[1] are not covered by this Standard.

3.3 QUALITY CRITERIA

3.3.1 General Requirements

(a) **[**Fruits may be fresh, frozen, canned, concentrated and freeze-dried or may have undergone other physical preservation treatments. Apricots and plums to be used in the manufacture of jam may also be treated by other drying processes apart from freeze drying. Citrus fruit may be preserved in brine;**]**

(b) 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; and

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.

3.3.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot shall be considered as meeting the applicable quality requirements referred to in Sections 1, 2 and 3 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plan with a AQL- 6.5- (see Annex).

4. FOOD ADDITIVES

4.1 ANTIFOAMING AGENTS

INS No.	Name of Food Additive	Maximum Level
471	Mono- and di-glycerides of fatty acids	Limited by GMP
900a	Polydimethylsiloxane	10 mg/kg

4.2 ANTIOXIDANTS

INS No.	Name of Food Additive	Maximum Level
300	Ascorbic acid (L-)	Limited by GMP

4.3 ACIDITY REGULATORS

INS No.	Name of Food Additive	Maximum Level
270	Lactic acid (L-, D-, and DL)	Limited by GMP
296	Malic acid (DL-)	
327	Calcium lactate	
330	Citric acid	
331 (i), (ii), and (iii)	Sodium dihydrogen citrate, disodium monohydrogen citrate, trisodium citrate (Mono-, di-, and tri- sodium citrates)	
333 (i), (ii) and (iii)	(Mono, di and tri calcium citrates)	
334	Tartaric acid (L(+)-)	
335 (i) and (ii)	Mono- and di- sodium tartrates	
350 (i) and (ii)	Sodium hydrogen and sodium malate	
524	Sodium hydroxide	Limited by GMP (in jams, jellies and marmalades only)

4.4 FIRMING AGENTS - In all products except extra jam and extra jelly

INS No.	Name of Food Additive	Maximum Level
227	Calcium hydrogen sulphite	500 mg/kg
170 (i)	Calcium carbonate	Limited by GMP
327	Calcium lactate	
509	Calcium chloride	
578	Calcium gluconate	

4.5 FLAVOURINGS

- Natural fruit essences of the named fruits in the respective product;	Limited by GMP
- Natural mint flavour;	
- Natural cinnamon flavour;	
- Vanilla and vanilla extracts, vanillin.	

4.6 PRESERVATIVES

INS No.	Name of Food Additive	Maximum Level
200 - 203	Sorbic acid and its sodium, potassium, and calcium salts	1g/kg singly or in combination
210- 213	Benzoic acid and its sodium, potassium and calcium salts	
214, 216, and 218	Ethyl, propyl and methyl p-hydroxybenzoate	
220	Sulphur dioxide (residual carry over)	50 mg/kg in the end product except when made with sulphited fruit when a maximum level of 100 mg/kg is permitted in the end product (except extra jam and extra jelly

4.7 THICKENING AND GELLING AGENTS

INS No.	Name of Food Additive	Maximum Level
440	Pectins	Limited by GMP
400 - 404	Alginic acid and its sodium, potassium, ammonium, and calcium salts	Limited by GMP (except extra jam and extra jelly)
406	Agar	
407	Carrageenan and its Na, K, NH_4 salts - includes furcellaran - (Carrageenan)	
410	Carob bean gum (locust bean gum)	
412	Guar gum	
415	Xanthan gum	
418	Gellan gum	

4.8 COLOURS - In all products except extra jam and extra jelly

INS No.	Name of Food Additive	Maximum Level
100	Curcumins	Limited by GMP
140	Chlorophylls	
140 (ii)	Chlorophyllins	
141 (i)	Chlorophyll copper complexes	
141 (ii)	Chlorophyllin copper complexes, sodium and potassium salts	
150a	Caramel I - plain	
150b	Caramel II - caustic sulphite process	
150c	Caramell III - ammonia process	
150d	Caramel IV - ammonia sulphite process	
160a (i) and (ii)	Beta-carotene (synthetic) (including Beta-carotene from *Blakeslea trispora)* Natural extracts (carotenes, mixed - vegetable and algae -)	
160c	Paprika oleoresins (capsanthin, capsorubin)	
162	Beet red (beetroot red, betanin)	
163 (i)	Anthocyanains[3]	
163 (ii)	Grape skin extract	

[3] Not in the GSFA (General Standard for Food Additives).

INS No.	Name of Food Additive	Maximum Level
104	Quinoline Yellow	100 mg/kg singly or in combination
110	Sunset Yellow FCF	
120	Carmines (cochineal extract, carminic acid)	
124	Ponceau 4R (cochineal Red A)	
129	Allura Red AC	
133	Brilliant Blue FCF	
142	Green S[2]	
160d	Lycopene[2]	
161b	Lutein[2]	
143	Fast Green FCF	400 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, Rev. 4-2003), 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% 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 (90% container capacity) of Section 7.1.1 should be considered a "defective".

7.1.3 Lot Acceptance

In accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004), a lot should be considered as meeting the requirements 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 a AQL-6.5 (see Annex).

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, Rev. 1-1991). In addition, the following specific provisions apply:

8.2 NAME OF THE PRODUCT

8.2.1 The name of the product shall be one of the following:

- Jam (or preserve, if appropriate);
- Extra jam /High Fruit jam /jam (or conserve if appropriate);
- Jelly;
- Extra jelly;
- Marmalade or jelly marmalade.

8.2.2 The name of the product shall provide an indication of the fruit(s) used in descending order of weight. In the case of products made with three of more different fruits the alternative phrase "mixed fruit" or similar wording maybe 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 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.

8.2.5 In the case of marmalade which is not made exclusively from oranges the designation shall contain the citrus fruits from which the product was prepared except where the proportion of other citrus fruits is less than 10%.

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 100g".

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 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 mark is clearly identifiable with the accompanying documents

9. METHODS OF ANALYSIS AND SAMPLING

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Calcium		AOAC 968.31	Complexometry Titrimetry	II	E		AOAC 968.31 is already contained in CX/STAN 234/1999[4] for canned green peas (Type II). The 24th CCMAS[5] endorsed AOAC 968.31 (Type II) as a general method for the determination of calcium in processed fruits and vegetables. This method replaces CAC/RM 38-1970.

[4] Codex Standards and related texts are available for downloading at: http://www.codexalimentarius.net/search/advancedsearch.do.
[5] 24th CCMAS (November 2002), ALINORM 03/23, App. VI/H1.

Provision	Level	Method	Principle	Type	Status	Recommendation	Note
Mineral impurities	≤ 0.04 % (m/m)	AOAC 971.33	Ashing	I	E		AOAC 971.33 is already contained in CX/STAN 234/1999[4] for the determination of mineral impurities in jams, jellies, and marmalades and processed tomato concentrates (Type I and IV respectively). The 22nd CCPFV agreed to recommend CCMAS to replace CAC/RM 49-1972 with AOAC 971.33 for the determination of mineral impurities (sand) (see Appendix VIII-Part I of this Report).
Soluble solids		AOAC 932.14C ISO 2173:1978 (Codex General Method for processed fruits and vegetables)	Refractometry	I	E		The 24th CCMAS[5] endorsed AOAC 932.14C and ISO 2173:1978 (Type I) as general methods for the determination of soluble solids in processed fruits and vegetables.
Fill of containers		CAC/RM 46-1972 (Codex General Method for processed fruits and vegetables)	Weighing	I	E		See CX/STAN 234/1999[4]

ANNEX

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

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

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

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

**PRIORITY LIST
FOR THE REVISION AND 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

PART I - METHODS OF ANALYSIS AND SAMPLING FOR CONSIDERATION BY THE CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING

1. General Methods of Analysis for Processed Fruits and Vegetables

Commodity	Provision	Method	Principle	Type	Recommendation	Note
Processed fruits and vegetables (except canned bamboo shoots, pH determined by AOAC 981.12)	pH	ISO 1842:1991	Potentiometry	IV	**Replace AOAC 981.12 and ISO 11289: 1983 with ISO 1842:1991**	**REPLACE/UPDATE**: At the suggestion of the 24th CCMAS[1] replace methods AOAC 981.12 and ISO 11289: 1983 by ISO 1842:1991 for processed fruits and vegetables. Provisions in individual standards: - Proposed draft Codex Standards for Processed Tomato Concentrates and Preserved Tomatoes (proposed for adoption at Step 5 by the 28th CAC) Sections 3.2.2.4 and 3.2.3.4 respectively.

[1] 24th CCMAS (November 2002), ALINORM 03/23, para. 67 and App. VI/H1.

2. Methods of Analysis and Sampling for Specific Commodities

2.1 Kimchi

Commodity	Provision	Method	Principle	Type	Recommendation	Note
Kimchi	Sampling	~~CODEX STAN 233-1969~~ CAC/GL 50-2004 ~~[In addition, the following applies:~~ ~~(a) Samples shall be taken and stored in a protected cool place from 0°C to 4°C so as to prevent deterioration of the sample.~~ ~~(b) Precautions shall be taken to protect the sample, the material being sampled, the sampling instruments, and the sample containers from extraneous contamination.~~ (c) ~~The sample shall be placed in clean dry glass containers with air tight stoppers or closures. It shall be marked with full details of sampling, date of sampling, name of the vendor and other particulars of the consignment.]~~			**Replace the text crossed out with CAC/GL 50-2004**	**REPLACE/UPDATE**: This provision was endorsed by the 22nd CCMAS[2]. In view of the revocation of CX/STAN 233-1969 and the adoption of the newly CAC/GL 50-2004 General Guidelines on Sampling, the 22nd CCPFV clarified that additional provisions no longer required as they are covered by CAC/GL 50-2004.

[2] 22nd CCMAS (November 1998), ALINORM 99/23, App. III Part 2/A.

3. Codex Recommended Methods (CAC/RMs) for Processed Fruits and Vegetables and some Specific Commodities

The 20th Session of CCMAS (October 1995) 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[3]. The 21st CCMAS (March 1997) 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 *Codex Alimentarius* Volume 13 and the CAC/RM number reference deleted[4]. The Codex Alimentarius Commission at its 22nd Session (July 1997) agreed to the abolition of the CAC/RM Numbering System as recommended by CCMAS[5] In compliance with this recommendation, the 22nd Session of the CCPFV made the following decisions:

3.1 CAC/RMs requiring revocation

Commodity	Provision	CAC/RM Reference	Current Reference	Principle	Type	Recommendation	Note
Processed fruits and vegetables	Determination of Drained Weight	CAC/RM 36-1970	AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving Gravimetry	I	**Remove reference CAC/RM 36-1970 and replace with current reference AOAC 968.30.**	**REPLACE/UPDATE:** AOAC 968.30 has been endorsed by CCMAS as a Type I Method for the determination of drained weight in Codex standards for processed fruits and vegetables (CX/STAN 234/1999[6]) including the Codex Standards for Canned Bamboo Shoots[7] and Kimchi[8] and the draft Codex Standard for Pickled Products[5] (renamed draft Codex Standard for Pickled Fruits and Vegetables). The 22nd CCPFV suggested that CAC/RM 36-1970 should be replaced by AOAC 968.30 as a general Codex method for the determination of drained weight in processed fruits and vegetables as recommended by the 20th CCMAS and consequently, replace CAC/RM 36-1970 by AOAC 968.30

3 20th CCMAS (October 1995), ALINORM 97/23, para. 52.
4 21st CCMAS (March 1997), ALINORM 97/23A, para. 44.
5 22nd CAC (July 1997), ALINORM 97/37, para. 145.
6 Codex Standards and related texts are available for downloading at: http://www.codexalimentarius.net/search/advancedsearch.do.
7 21st CCMAS (March 1997), ALINORM 97/23A, App. V-Part 2/D.

Commodity	Provision	CAC/RM Reference	Current Reference	Principle	Type	Recommendation	Note
Canned green peas	Determination of Alcohol Insoluble Solids	CAC/RM 47-1972	AOAC 938.10	Sieving	II	**Remove reference CAC/RM 47-1972 and replace with current reference AOAC 938.10.**	**REPLACE/UPDATE:** AOAC 938.10 is already contained in CX/STAN 234/1999[6] for canned green peas (Type II).
Jams, Jellies and Marmalades and Processed Tomato Concentrates	Determination of Mineral Impurities (Sand)	CAC/RM 49-1972	AOAC 971.33	Gravimetry	II (Jams, jellies and marmalades) IV (processed tomato concentrates)	**Remove reference CAC/RM 49-1972 and replace with current reference AOAC 971.33.**	**REPLACE/UPDATE:** AOAC 971.33 is already contained in CX/STAN 234/1999[6] for jams, jellies, and marmalades and processed tomato concentrates (Type I and IV respectively).

[8] 22nd CCMAS (November 1998), ALINORM 99/23, App. III-Part 1/B.

METHODS OF ANALYSIS PREVIOUSLY RECOMMENDED AS CAC/RMS OR STATED IN THE STANDARDS

CAC/RM 36/1970
DETERMINATION OF DRAINED WEIGHT

[TO BE REVOKED AND REPLACED BY AOAC 968.30]

METHOD I - (BASED ON AOAC METHOD)

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 lb) 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 2.8 mm by 2.8 mm[9].

3. PROCEDURE

Weight full can, open, and pour entire contents on circular sieve for which a tare has been established. Without shifting product, incline sieve so as to facilitate drainage. Drain 2 minutes, weight either drained solids or free liquid direct, and weight dry empty can.

4. CALCULATION AND EXPRESSION OF RESULTS

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

5. LITERATURE REFERENCE

AOAC (1965), 30.001: Drained weight.

[9] Ref. ISO Recommendation R 565; such sieves may be replaced by US sieves with No 8 Standard screen (size of opening 2.38 mm)

CAC/RM 47-1972
DETERMINATION OF ALCOHOL INSOLUBLE SOLIDS
(Based on AOAC Method)
[TO BE REVOKED AND REPLACED BY AOAC 938.10]

1. DEFINITION

The alcohol insoluble solids content of peas is in relation to their texture and maturity.

2. MATERIALS

2.1 Specifications for circular sieves

2.1.1 If the quantity of the total contents of the container is less than 1.5 kg (3 pounds) use a sieve with a diameter of 20 cm (8 inches)

2.1.2 If the quantity of the total contents of the container is 1.5 kg (3 pounds) or more, use a sieve with a diameter of 30 cm (12 inches).

2.1.3 The meshes of such sieves are made by so weaving wire as to form square openings of 2.8 mm by 2.8 mm.[10]

3. PROCEDURE

3.1 Pour the sample on circular sieve. Spread peas evenly and let drain. Transfer peas to white pan and remove any foreign material. Add volume H_2O equal to double volume original sample.

3.2 Pour peas back on sieve, spreading evenly, tilt sieve as much as possible without shifting peas, and drain 2 minutes. With cloth wipe surplus moisture from lower surface of sieve. Grind drained peas in food chopper until cotyledons are reduced to smooth homogeneous paste, stir and weigh 20 g ground material into 600 ml beaker. Add 300 ml 80% (v/v) alcohol, stir, cover beaker, and bring to boil. Simmer slowly 30 minutes.

3.3 Fit into Büchner filter paper of appropriate size (previously prepared by drying in flat-bottom dish 2 hours at temperature of boiling H_2O, covering with tighfit cover, cooling in desiccator, and weighing at once). Apply suction and transfer contents of beaker to Büchner so as to avoid running over edge of paper. Suck dry and wash material on filter with 80% (v/v) alcohol until washings are clear and colourless.

3.4 Transfer paper and alcohol-insoluble solids to dish used in preparation of paper, dry uncovered 2 hours at temperature of boiling H_2O, place cover on dish, cool in desiccator and weigh at once. From this weight deduct weight of dish, cover and paper.

4. CALCULATION AND EXPRESSION OF RESULTS

Calculate % m/m of alcohol-insoluble solids.

5. LITERATURE REFERENCE

AOAC (1965) 30.015 - Alcohol Insoluble Solids in Canned Peas (6). Official.

[10] Ref. ISO Recommendation R 565. Such sieves could be replaced by US sieves with No 8 Standard screen (size of opening 2.38 mm).

CAC/RM 49-1972
DETERMINATION OF MINERAL IMPURITIES (SAND)
[TO BE REVOKED AND REPLACED BY AOAC 971.33]

1. Apparatus

Blender or macerator (Atomix, Turmix, Waring or equivalent).

Beakers - 2,000 ml capacity.

Funnels.

Filter Paper, Whatman No. 1, or equivalent.

Porcelain or Platinum crucibles.

Air oven or bunsen burner.

Muffle furnace (600°C).

Desiccator with active desiccant.

Analytical balance.

2. Reagents

NaCl solution (15%)

HCl

$AgNO_3$

3. Preparation of Test Sample

3.1 Containers of 500 g, or less - use the entire contents including strawberries and packing medium. Comminute in blender and use entire portion for the analytical sample.

3.2 Containers larger than 500 g - thoroughly comminute the contents of the entire container. Quickly remove a 500 g for the analytical sub sample (sub).

4. Procedure

4.1 Transfer the analytical sub to a 2-L beaker taking care to include any sand that might settle out.

4.2 Nearly fill the beaker with water and mix contents by swirling, using a stirring rod if needed.

4.3 Let stand about 10 minutes and decant supernatant material and water into a second 2-L beaker.

4.4 Refill the first beaker with water, repeat the mixing and swirling operation and again let set 10 minutes.

4.5 Fill the second beaker with water, mix and swirl, and let stand 10 minutes.

4.6 At the end of the 10 minute period decant beaker No. 2 into beaker No. 3. Likewise decant beaker No. 1 in beaker No.2.

4.7 Repeat the sequence carefully decanting supernatant from beaker No. 3 into sink, until all fruit tissue is removed from the sample.

4.8 Finally collect the residue from all the beakers in beaker No. 3.

4.9 Remove any seeds or fruit tissue that settle out by treating the residue in beaker No. 3 with hot 15% NaCl solution.

4.10 Remove NaCl by washing with hot water. Removal can be verified by testing the washings with $AgNO_3$.

4.11 Finally transfer residue remaining in Step 4.10 to funnel fitted with ashless filter paper. Use small portion of water to assure transfer of all residue. Discard filtrate.

4.12 Transfer filter paper to a weighed crucible. Dry in air oven or oven bunsen burner. Ignite in muffle furnace for about 1 hour at 600°C.

4.13 Cool, add 5 ml HCl and heat to boiling. Again cool, add 10 ml H_2O and heat to boiling.

4.14 Filter, and wash free of acid.

4.15 Ignite the filter by an initial drying and incineration in muffle furnace at 600°C.

4.16 Cool in desiccator, and weight.

5. Calculation and Expression of Results

5.1 The weight of acid insoluble residue is determined by subtracting the weight of the empty crucible from the weight of the crucible plus incinerated residue (expressed as mg).

5.2 Express the residue, i.e. mineral impurities as mg/kg of the total product.

(a) If the test sample is 500 g, multiply the value obtained in Step 5.1 by two (2).

(b) If the test sample is other than 500 g, use the following formula:

$$X = \frac{1000}{W} (R)$$

where:

X = mineral impurities

W = weight of test sample (grammes)

R = residue remaining after incineration (milligrammes)

6. Literature Reference

Journal of the AOAC, Vol. 54, No. 3, 1971 (pages 581-583)

PART II - METHODS OF ANALYSIS AND SAMPLING FOR CONSIDERATION BY THE 23rd SESSION OF THE CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES[11]

1. Methods of Analysis for Specific Commodities

1.1 Aqueous Coconut Products - Coconut Cream and Coconut Milk[6] - (CODEX STAN 240-2003)

Commodity	Provision	Method	Principle	Type	Recommendation	Note
Aqueous Coconut Products	Moisture				**Codex Members and Observers should provide inputs for consideration by the 23rd CCPFV**	The 24th CCMAS[12] did not endorse the method "subtracting total solids from 100", principle [Calculation] as it applies to milk.
Aqueous Coconut Products	Non-fat solids					The 24th CCMAS did not endorse the method "subtracting total fats from total solids", principle [Calculation] as it applies to milk.
Aqueous Coconut Products	Total fats					The 24th 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.
Aqueous Coconut Products	Total solids					The 24th CCMAS did not endorse method AOAC 990.20 as it applies to milk. AOAC 990.20 method needs to be checked in this regard.

[11] 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).

[12] 24th CCMAS (November 2002), ALINORM 03/23, para. 69 and App. VI/H2.

Commodity	Provision	Method	Principle	Type	Recommendation	Note
Aqueous Coconut Products	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).

1.2 Specific commodities under consideration by CCPFV

In compliance with the decision of the Committee (see paras. 100 (d) and 101 (b) of this Report) the methods of analysis and sampling for the other commodities under consideration namely: Processed tomato concentrates (Appendix II); preserved tomatoes (Appendix III); canned citrus fruits (Appendix IV); canned vegetables (Appendix V); and jams, jellies and marmalades (Appendix VII) are included in the corresponding Appendices.

In the case of pickled fruits and vegetables, a complete list of methods of analysis (endorsed and requiring further clarification by CCMAS) will be incorporated into the revised draft Codex Standard for Pickled Fruits and Vegetables when circulated at Step 6 under separate cover.