



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET
L'AGRICULTURE
ORGANIZACION DE LAS NACIONES UNIDAS PARA LA AGRICULTURA Y
LA ALIMENTACION
00100 Rome, Via delle Terme di Caracalla. Cables: FOODAGRI, Rome. Tel.
5797



WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ
1211 Genève, 27 Avenue Appia. Câbles: UNISANTÉ, Genève. Tél. 34 60 61

ALINORM 76/20

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
Eleventh, Session, Geneva 1976

REPORT OF THE ELEVENTH SESSION
OF THE
CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

Washington, D.C., USA
3-7 June 1974

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
REPORT OF THE ELEVENTH SESSION
OF THE CODEX COMMITTEE ON PROCESSED
FRUITS AND VEGETABLES
WASHINGTON, D.C, USA
3-7 JUNE 1974

	<u>Page</u>	<u>Paragraph</u>
Introduction	1	1
Adoption of the Agenda	1	2
Matters Arising from Previous Codex Meetings	1	3
Canned Fruit Cocktail	2	4
Canned Tropical Fruit Salad	3	14
Jams (Fruit Preserves) and Jellies	8	36
Citrus Marmalade	12	58
Canned Carrots	15	72
Pickled Cucumbers (Cucumber Pickles)	19	95
Future Work Programme	20	105
Date and Place of the Next Session	21	110
Status of Standards	22	111

Appendix

- (I) List of Participants II Draft Standard for Canned Fruit Cocktail
- (II) Proposed Draft Standard for Canned Tropical Fruit Salad
- (III) Report of the Working Group on Jams and Jellies
- (IV) Draft General Standard for Jams (Fruit Preserves) and Jellies
- (V) Draft Standard for Citrus Marmalade
- (VI) Proposed Draft Standard for Canned Carrots
- (VII) Other Jam Products Not Covered by the Present Draft Standard

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
REPORT OF THE ELEVENTH SESSION
OF THE CODEX COMMITTEE ON PROCESSED
FRUITS AND VEGETABLES
WASHINGTON, D.C, USA
3-7 JUNE 1974

Introduction

1. The Eleventh Session of the Codex Committee on Processed Fruits and Vegetables was held at the State Department Building under the chairmanship of Dr. Floyd F. Hedlund (United States). Representatives and observers from 23 countries and observers from 4 international organizations attended the session. The list of participants is attached as Appendix I to this Report. The participants were welcomed by the Chairman, Dr. Hedlund, and by Mr. Ervin L. Peterson, Administrator, Agricultural Marketing Service, of the United States Department of Agriculture and Codex Coordinator for the United States.

Adoption of the Agenda

2. The Committee adopted the Provisional Agenda with the following modifications. Item 5(b) Canned Tropical Fruit Salad was inserted as Item 4(b) after Canned Fruit Cocktail, Item 4(a). The delegation of the United Kingdom informed the Committee that they had examined the trade figures for Canned Beans in Tomato Sauce and that they had noted that, although there was considerable consumption of the product, it was largely domestic and there was very little international trade. Therefore, the elaboration of a standard for this product did not meet the work priorities criteria as outlined in the Procedural Manual, page 51 (third edition). The Committee, therefore, decided to delete this item (Item 6) from the Agenda.

Matters Arising From Reports of Codex Meetings Held Since the Tenth Session of the Committee Which Concerned the Work of the Committee

3. As at previous sessions, the Committee agreed that it would be best to consider the remarks in the Reports of the Ninth Session of the Codex Committee on Food Additives, the Tenth Session of the Codex Committee on Food Hygiene, the Eighth Session of the Codex Committee on Food Labelling, and the Eighth Session of the Codex Committee on Methods of Analysis and Sampling, relating to the standards which were before it for consideration, when it came to discuss the standards individually.

Reconsideration of the Draft Standard for Canned Fruit Cocktail at Step 7

4. The Committee had before it the above standard for reconsideration at Step 7 as contained in ALINORM 72/20A, Appendix IV and government replies as contained in CX/PFV 74/2 and Addenda I and II in response to the request in Circular Letter (CL 1974/3) for data concerning domestic production and consumption, exports, imports of canned fruit mixtures, and for information as to the composition and designations of such mixtures.
5. The Committee's attention was drawn to the decisions taken at the Ninth Session of the Commission ALINORM 72/35 paras. 138-141. The Commission had noted that there was a problem as to mixtures of fruit and nomenclature and had

- agreed that the Secretariat should request information on what mixtures of fruits are canned and what designations the various mixtures are given. The information should also include data on domestic consumption, imports and exports of the various mixtures. The delegation of the United States, which had served as rapporteur for the assembling of the data, informed the Committee that 96% of the products marketed under the name of Canned Fruit Cocktail, conformed with the present draft standard. In addition, many countries imported Canned Fruit Cocktail whose composition corresponded to that of the draft standard. It had also been noted that there were other mixtures with different fruit compositions which were marketed under other names.
6. Several delegations proposed that other fruits be permitted as substitutes for some of the five basic fruits in the standard. Among the fruits mentioned as possible substitutes were apricots, apples and mirabelles.
 7. Some delegations stated that whereas they could permit distribution within their own countries of a product which conformed to the standard, they also could allow the manufacture for domestic consumption only,
 8. of a product called Canned Fruit Cocktail which could nevertheless contain any of the fruits mentioned above as substitutes for some of the fruits specified in the standard. The Committee felt, however, that since the survey had demonstrated that the greater part of international trade in Canned Fruit Cocktail conformed to the present draft standard, they could not agree to permitting the use of other fruits as substitutes. The delegation of France agreed to this, except for internal consumption in the countries whose national legislations authorized this. The Committee, however, decided not to allow other mixtures of fruit in an international Codex standard for Canned Fruit Cocktail.
 8. The delegation of Argentina drew the Committee's attention to several errors of translation in the Spanish text of the draft standard. These were the following: the title which included the name "Ensalada" should properly be translated as "Coctel", and the nomenclature for peaches should be melocotones (duraznos), and for pineapple, pina (ananas) and for syrup, jarabe (almibar).

Food Additives

9. The delegation of Italy proposed that the use of citric acid and L-tartaric acid be permitted in the standard as acidifying agents. Several delegations queried the technological need for the addition of these substances. Although it was pointed out that they were used to stabilize the product it was felt that there was not sufficient information to justify their use in the standard.
10. It was pointed out that contrary to the proposed draft standard for Canned Tropical Fruit Salad, there were no provisions for a maximum level of tin. The Committee agreed to include a section on contaminants in the draft standard and to allow a maximum level for tin of 250 mg/kg subject to endorsement by the Codex Committee on Food Additives. The delegation of Poland proposed a figure of 150 mg/kg.
11. The delegation of Poland reiterated its reservations on the use of colouring matters in the draft standard.

Hygiene

12. In accordance with the decision of the Codex Committee on Food Hygiene at its Tenth Session (May 1973) the text of subsection 5.3(b) was slightly modified.

Status of the Standard

13. The Committee agreed to advance the draft standard for Canned Fruit Cocktail to Step 8 of the Procedure. The revised standard is contained in Appendix II of this Report.

Reconsideration of the Proposed Draft Standard for Canned Tropical Fruit Salad at Step 4

14. The Committee had before it the above standard as contained in ALINORM 74/20, Appendix IX, for reconsideration at Step 4, and government comments thereon as contained in CX/PFV 74/6 and Addenda I, II and III. The following were the main points emerging from the Committee's consideration of the above standard.

15. Product Definition

Several delegations expressed the opinion that this section needed further precision since it was not clear that the basic fruits could include papaya or mango, either singly or in combination. After some discussion it was decided that the definition should be rewritten to take account of this problem. A new product definition was drafted and later presented for consideration by the Committee and accepted. The revised version appears in Appendix II to this Report.

16. The delegation of France stated that the name "Macedoine" was incorrect for this product and would cause confusion to its consumers because this name was reserved for another type of canned fruit mixture.

The name "Melange" was suggested as an alternative. The Committee could not agree to this change as it would mean that the name in English would become "Mixture".

Basic Fruits

17. It was pointed out that the name "paw paw" was used for more than one fruit and that paw paw (*Asimina triloba*) and papaya (*Carica papaya*) are different species. As papaya was the fruit which was largely used in Canned Tropical Fruit Salad, it was decided to delete "paw paw" from the basic fruits.

Optional Fruits

18. It was also pointed out that in some countries of Latin America guava was also called "guayaba", and the description was amended accordingly. Additions to the list of optional fruits were discussed. Some delegations suggested that figs, quinces and grapefruit should be added.

In the case of figs and quinces, this was not supported since it was felt that they could not properly be described as tropical fruits. Grapefruit was accepted since there seemed to be no reason to exclude it from a list of optional fruits which already contained other types of citrus fruits. The list was supplemented by a more complete description of the styles in which the fruits could be presented, and, in the case of jack fruit, melon and rambutan, also by the addition of their specific names.

Proportion of Basic and Optional Fruits

19. It was pointed out that although banana is listed among the basic fruits, the maximum proportion allowed was below that for some of the optional fruits. It was, therefore, decided to increase the maximum for bananas to 20% and among the optional fruits to increase guava to 20%. In both cases, however, it was felt that the characteristic flavours of these fruits would in themselves limit the quantity which could be added to Tropical Fruit Salad, to the detriment of the flavours of other fruits.
20. In the case of maraschino cherries and passionfruit, it was felt that the present proportions were too low. The proportion of maraschino cherries was, therefore, changed to 1% minimum to 4% maximum and passionfruit from 1% to 5%. The proportions of grapefruit, which were now included in the list of optional fruits, were put at the same levels as those for oranges.

Packing Media

21. A correction was made to the strength of Extra Heavy Syrup which now reads "not less than. . ." instead of "not more than. . .".

Sizes and Shapes of Fruit

22. This section was considered to be superfluous and to be now adequately covered under subparagraph 1.1.2 which described kinds and styles of fruits. It was, therefore, deleted.

Colour

23. There was some discussion on the use of the word "normal" in describing the colour of mixtures of canned fruit. Neither "normal" nor "natural" were considered accurate descriptions since maraschino cherries, which are an optional ingredient, are artificially coloured and might impart some colour to the product. The wording was therefore changed to read that the product shall have a colour characteristic of a combination of all the processed ingredients and to allow for a slight leaching of colour from the maraschino cherries when present.

Defects and Allowances

24. The delegation of the United States pointed out that the defects should be enumerated according to the sampling plans specified in subparagraph 8.1.1 of the proposed draft standard and the Committee agreed to the addition of a phrase to this effect. It was also agreed to change the maximum limit for defects in peel to 6.5 cm²/500 g of total contents and to exempt passionfruit from the limits imposed with regard to seeds and seed material since passionfruit and its seeds are normally eaten.
25. The delegation of Canada proposed that for erythrosine there should be a maximum level in the end product of 300 mg/kg of cherries, instead of the present "no limit" requirement. Several delegations thought that this was much too high and the delegation of Australia felt that this would also pose an analytical problem because the quantity of erythrosine taken up by the cherries might vary. The Committee agreed to replace the wording "no limit" by "limited by good manufacturing practice" and to delete the following words from the qualifying phrase for erythrosine - "only when artificially coloured cherries are used".

Flavours

26. It was agreed to delete the word "natural" from the heading and to bring this section into line with the corresponding sections for Canned Fruit Cocktail.

Anti-oxidants

27. Several delegations stated that they were against the use of erythorbic acid as there was, in their opinion, no technological need for this substance in Canned Tropical Fruit Salad. The Committee agreed to delete the provision for erythorbic acid. Some delegations queried whether the maximum permitted level in the end product of 700 mg/kg for L-ascorbic acid was not too high. The delegation of Australia pointed out that with the large increase in the number of optional fruits now permitted in the standard, many of them with a high content of ascorbic acid, it was extremely difficult to estimate how much ascorbic acid there would be in the end product, and, therefore, the limit of 700 mg/kg was justified. The Committee agreed to retain this provision in the proposed draft standard.

Contaminants

28. Some delegations felt that the permissible maximum level for tin of 250 mg/kg was too high and proposed that it should be lowered to 150 mg/kg. The delegation of Australia stated that this was one product which, because of the possible wide range of fruits, would require a higher level and that 250 mg/kg would be suitable. Many delegations were of the opinion that, although the present level was rather high, it would be preferable to retain the limit of 250 mg/kg pending further toxicological data from other Codex Committees which were currently studying this problem.
29. The delegation of the United Kingdom proposed that a provision be included for lead up to a maximum level of 2 mg/kg. The delegation of Switzerland, while agreeing with the idea of including a provision for lead, felt that provision for other heavy metals should also be allowed in accordance with the recommendation of the Commission that all standards for canned fruits and vegetables should have a section on contaminants. Some delegations thought that it was unnecessary to include a provision for lead, whilst others thought that the figure could be the same as that in the fruit juice standards. The Committee decided, in the absence of sufficient data, not to include a provision for lead at this stage, but to wait until further data was available. In this connection it was mentioned that the Joint Group of Experts on Fruit Juices was currently examining this problem.

Minimum Drained Weight

30. The Federal Republic of Germany stated in its written comments that they could not agree to a minimum drained weight of 50%, to be regarded as average weight. The delegation of Australia explained that the reason why their product was almost puree was that papaya and banana tend to lose their consistency and felt that, therefore, the figure should be 50%. The Committee agreed to retain the minimum drained weight of 50% in the draft standard.

List of Ingredients

31. The Committee agreed to delete in subparagraph 7.2.1 the phrase "except that water and fruit juice need not be declared" as it was pointed out that although both water and the name of the fruit juices could be declared with the name of the product they should also be declared in the list of ingredients. It was agreed

to amend, in the same way, the corresponding subparagraph of the draft standard for Canned Fruit Cocktail.

32. As it had been decided that only Maraschino Cherries could be used in the draft standard, it was agreed to reword subparagraph 7.2.2 accordingly. The revised version is contained in Appendix III to this Report. The Committee also agreed to delete from subparagraph 7.2.3 the phrase "or elsewhere on the label" in order to restrict the declaration of L-ascorbic acid as an anti-oxidant, only to the list of ingredients. It was further agreed to bring the corresponding sub-paragraph in the Draft Standard for Canned Fruit Cocktail into line with this standard, taking into account the decision of the Commission at its Ninth Session, ALINORM 72/35 (para. 140).

Net Contents

33. The delegation of the Federal Republic of Germany in its written comments, and the delegations of France and Norway stated that, in their opinion, the drained weight of the product should be declared on the label in order to give complete information to the consumer. The delegation of Canada drew the attention of the Committee to Section 3.3(b) of the Recommended International General Standard for Prepackaged Foods which stated that: "Foods packed in a liquid medium normally discarded before consumption shall carry a declaration of the drained weight of the food." The delegation of Australia pointed out that as the entire contents of the can are consumed there was no need to require a declaration of drained weight. The Committee agreed to retain the text as it appeared in the present draft standard.

Lot Identification

34. The delegation of Switzerland proposed that a provision for lot identification be included in the standard. This provision would be similar to that adopted for other standards and would read as follows: "Each container shall be embossed or otherwise permanently marked, in code or in clear, to identify the producing factory and the lot". Although several delegations felt that they could agree with the desire of the delegation of Switzerland to include a provision of this nature, they thought that this was a general problem and did not relate only to this standard and therefore should more properly be discussed in a wider forum. The Committee agreed to request the Codex Committee on Food Labelling to try and develop a suitable wording for lot identification that would be applicable to all prepackaged foods.

Status of the Standard

35. The Committee agreed to advance the Proposed Draft Standard for Canned Tropical Fruit Salad to Step 5 of the Procedure. The revised standard is contained in Appendix III of this Report.

Reconsideration of the Draft General Standard for Jams (Fruit Preserves) and Jellies at Step 7

36. The Committee had before it the above standard for reconsideration at Step 7 as contained in ALINORM 74/20, Appendix II, the Report of the Informal Working Group as contained in CX/PFV 74/3, and the Report of the Coordinator (United Kingdom) as contained in CX/PFV 74/3-(1).

37. The delegate of the United Kingdom as coordinator of the Informal Working Group on Jams (Fruit Preserves) and Jellies introduced the document CX/PFV 74/3-(1) and a Report of the meeting of the Working Group which took place on 30 and 31 May (CX/PFV 74/3). It was reported that the Working Group had recognized that a solution based on one of the options discussed in CX/PFV 74/3-(1) was necessary if there were to be any progress in the consideration of this draft standard and that it had been unanimously agreed by the Working Group that a two tier system would offer the widest scope for all countries to accept the draft standard in whole or in part. At the same time, such a solution would, in its view, embody the principles and views of Codex and would not conflict with the statement made by the FAO Legal Adviser at the Ninth Session of the Codex Alimentarius Commission.
38. The Working Group had recommended certain compositional criteria for discussion by the Committee. In making their recommendations it had been recognized that there were differing views on what the figures for the fruit contents of the two tiers should be. The figures recommended were those which the Working Group thought would maintain a sufficient distinction between the two tiers, would allow the manufacture of a reasonable product at the lower tier, and which would also provide a reasonable basis for consideration by the Committee.
39. The delegate of the United Kingdom also reported that the Working Group had been informed of a number of products, which were being produced nationally, but which had soluble solids levels below the 65% recommended by the Working Group. Consideration had been given to whether such products should be included within the Draft Standard for Jams (Fruit Preserves) and Jellies; whether they should be contained in a new standard to be drafted; or whether they should not be covered by a standard, at least at this stage. As the Working Group was not able to agree on definitions and compositional criteria which would satisfactorily distinguish this group of products from the products covered by the draft standard and as it was generally considered that the Codex Work Priorities Criteria were not yet fulfilled, the Working Group had agreed that it could not recommend, at this stage, the inclusion of products with a low soluble solids level, either within the present draft standard or in a separate standard.
40. The Committee noted that several other combinations of jams had been discussed but decided to limit their discussion at this stage to the so-called Traditional Jams. It was agreed that the Traditional Jams, as defined in the Working Group Report, be considered on the basis of a two tier system.

Fruit Content

41. It was agreed to consider the fruit content of the two tiers separately. The Committee decided to revise the minimum figures for the fruit content of the top tier to 45 parts by weight of fruit ingredient per 100 parts of finished product and for the bottom tier to 33 parts by weight of fruit ingredient per 100 parts of finished product. The delegation of Canada, supported by the delegations of Denmark and Mexico, proposed that the minimum figure for the fruit content of the bottom tier should be reduced to 30 parts by weight of fruit ingredient per 100 parts of finished product. For the top tier it was also agreed that raspberries, redcurrants, sour cherries, gooseberries and pineapples should be 45 parts by weight of fruit ingredient per 100 parts of finished product and therefore should

no longer be listed as exceptions and blackcurrants, rosehips and quinces, should be 35 parts, cashew apples should be 23 parts and passionfruit should be 8 parts.

42. The delegation of the United Kingdom pointed out that as the draft standard now provides for a two tier system, and as ginger was used in many specialty products in their country, that the definition of ginger, as regards jams, preserves and conserves, should be changed and that the minimum figure should be raised to 30 parts. If any country wanted less than 30 parts they could do so in the bottom tier. The delegation of the Netherlands disagreed with this point of view and expressed a preference for 25 parts. The Committee changed the definition of ginger to mean the drained edible and cleaned root of ginger, preserved in syrup and agreed to raise the minimum amount of ginger fruit content to 30 parts.
43. As regards the bottom tier, raspberries, redcurrants, sour cherries, gooseberries and pineapples were fixed at 33 parts, blackcurrants, quinces and rosehips at 25 parts, cashew apples at 16 parts, passion- fruit at 6 parts and ginger at 20 parts. The delegation of the Netherlands preferred a figure of 15 parts for ginger. Some delegations indicated that powdered ginger was used as the ginger ingredient in some jams and that minimum proportions of 30 and 20 parts in such cases were inappropriate. The Committee recognized that this matter was worthy of further consideration.

Acidifying Agents and pH Regulatory Agents

44. The delegation of Denmark proposed that fumaric acid be deleted because it was currently being toxicologically evaluated. Several other delegations agreed with this point of view. The delegation of the United States pointed out that this acid was present as a natural component of many fruits and was not necessarily used as an additive. It was further pointed out that fumaric acid had already been endorsed by the Food Additives Committee. The Committee agreed to maintain fumaric acid in the draft standard.

Thickening Agents

45. The Committee agreed to include a provision for amidated pectin to a maximum level of 0.5% by weight.

Colouring Matters

46. Several delegations queried the necessity for such an extensive list of colouring matters. The delegation of Canada stated that as the technological need for the use of the colours in jams had not yet been established, their use should be limited to jams in the bottom tier. They also stated that the list of colours in the present standard was too long and suggested it be changed to permit only Amaranth, Tartrazine and Sunset Yellow FCF in jams. The delegation of Poland stated that they were against the use of any artificial colours in jams. The Committee agreed to leave the list of colours as set forth in the present text. It was agreed that, in addition to the normal distribution, the Circular Letter of the Food Additives Committee requesting comments on colouring matters used in jams should also be sent to participants of this session.

Preservatives

47. The Committee agreed to include the words "based on the end product" in parentheses after the maximum level of 100 mg/kg in relation to sulphur dioxide.

Several delegations stated that they were opposed to the use of preservatives as there was no technological need for them. The delegation of Ghana pointed out that as the humidity was so high in their country, preservatives have to be used. The Committee, therefore, agreed to retain the present text as amended.

Natural Flavours

48. The Committee agreed to delete the word "natural" from the title. Firming Agents
49. The Committee took note of the revised version of this section as endorsed by the Codex Committee on Food Additives (para. 38, ALINORM 74/12) and agreed to incorporate it into the draft standard.

Anti-oxidants

50. Taking into account the comments of the Food Additives Committee (para. 39, ALINORM 74/12), the Committee decided to delete the provision for erythorbic acid.

Other Types of Jam Products

51. The delegation of Switzerland proposed that for Codex purposes a third tier, which contains more than 50% by weight fruit and not less than 50% total soluble solids in the end product should be elaborated. It was explained that because of the high ingoing fruit content, it was not possible to reach the high soluble solids content of the so-called traditional jams without boiling down to an excessive degree the ingoing fruit content.
52. The delegation of the Netherlands stated that they had another type of jam which was currently marketed in their country which had a minimum fruit content of 50% and a low sugar content. The same was true of a type of jam marketed in Denmark with a fruit content of 30%. Several delegations were concerned that they might be trying to elaborate a standard for products for which there was not yet much international trade and felt that some thought should be given as to how these products might be dealt with. It was pointed out that there is an expanding domestic market for these "semi-sugar jams" and it was therefore suggested that these different types of products should be so grouped that it would be possible to develop a two tier system for jam products.
53. The Committee agreed that it would be preferable to decide first on how to consider the various types of jam products before attempting to decide on the nomenclature of the Traditional Jams and, therefore, agreed to appoint a small ad-hoc group consisting of Denmark, the Netherlands, Switzerland and the United Kingdom, to try and resolve the question of how these various types of jam products could be classified in relation to Traditional Jams. This ad-hoc group should report its findings to the Committee in the morning.
54. The ad-hoc group reported to the Committee that they had been unable to reach any agreement (see para. 51 to 53). It had been suggested that the Swiss proposal, to incorporate its product into the standard and proposals for the other types of jam products, be circulated for government comments. The Committee agreed with this suggestion and requested that the various types of jam products be attached as Appendix VIII to this Report.

Scope

55. Having discussed the types of jam products, it was also considered appropriate to incorporate the slightly modified scope section which had been revised by the Informal Working Group. The revised text is contained in Appendix V to this Report.

Labelling

56. It was agreed that governments should be asked to comment on the various names which had been suggested for Traditional Jams. These were as follows: Extra Jam, Jam and High Fruit Jam for the top tier, and Jam, Light Jam, Low Fruit Jam and Fruit Spread for the bottom tier.

Status of the Standard

57. In view of the substantive changes which had been made, the Committee agreed to return the draft standard to Step 6 for a further round of government comments. Governments would also be asked to comment on the other types of jam products. Production and trade figures for such products would also be requested. It was further agreed that these comments should be sent to the Chairman of the Informal Working Group which would now also include Denmark, and that the Working Group would meet to consider them, before the end of the year if possible. The revised version of the draft standard is contained in Appendix V to this Report.

Reconsideration of the Draft Standard for Citrus Marmalade at Step 7

58. The Committee had before it the above standard for reconsideration at Step 7 as contained in ALINORM 74/20, Appendix III.
59. The Committee recalled the decision taken at its last session to retain the standard at Step 7 in view of the similarities with the Draft General Standard for Jams (Fruit Preserves) and Jellies, although they had generally felt that the draft standard was suitable for advancement to Step 8. The Chairman of the Informal Working Group on Jams (Fruit Preserves) and Jellies stated that although the decision of the Working Group, taken at its recent meeting, as regards Jams, would not affect this draft standard, it would be preferable to retain the draft standard at Step 7 in view of the fact that the Draft Standard for Jams (Fruit Preserves) and Jellies was being sent back for a further round of government comments and there might be consequential amendments. The Committee agreed to have a brief discussion on the draft standard.

Scope

60. At the suggestion of the delegation of Denmark, the Committee agreed to amend the Scope Section in the same way as had been done in the jams standard.

Product Definition

61. The delegation of the United Kingdom proposed the following rewording of this section: "Marmalade is the product obtained by processing prepared citrus fruit (as defined in subparagraph 2.2.1) in the form of whole fruit, fruit pulp or fruit puree, with a carbohydrate sweetener (as defined in subparagraph 3.1.1(2)), with or without citrus juice, the extraction of peel, the removal of some or all of the peel, the addition of water, pectin, edible acids and other minor ingredients in which the mixture is processed to a suitable consistency". The remaining sentence would stay unchanged. The Committee agreed to this rewording.

Essential Composition and Quality Criteria

62. The Committee also agreed to insert the word "citrus" before the word "fruit" in this Section and 2.2.1, Other Definitions, in order to specify that it was "citrus fruit" that was particularly intended, and not just "fruit".

Food Additives

63. The delegation of Argentina stated that they were opposed to the use of food additives which were not absolutely essential or had not been approved by the Food Additives Committee.

Acidifying Agents, pH Regulatory Agents and Thickening Agents

64. It was agreed to adopt the same format for Acidifying Agents and pH Regulating Agents as had been adopted for jams. It was further agreed to insert a similar provision for amidated and non-amidated pectin as had been included in the jams standard. It was also pointed out that amidated pectin was used in order to modify the texture.

Colouring Matters

65. The attention of the Committee was drawn to the request made by the Food Additives Committee at its last session, that a maximum level be proposed for caramel colour made by the ammonia process (ALINORM 74/12, para. 42). It was pointed out that ADI's had been specified for two types of caramel, caramel and caramel made with the ammonia process. It was agreed to include both types in the standard and the provision was amended to include the following:

Colouring Matters

Caramel	Limited by Good Manufacturing Practice (Endorsed)
Caramel (Made by the ammonia process)	1500 mg/kg (Subject to endorsement)

Preservatives

66. Several delegations stated their opposition to the use of preservatives in this product. The delegation of Ghana once more pointed out the need for these additives in countries with a high humidity. It was agreed to amend the provision for Sulphur Dioxide by adding in parentheses after the name, "as a carryover from raw material" and to insert after the maximum level of 100 mg/kg, in parentheses, "based on the end product".

Natural Flavours

67. The Committee agreed to delete the term "natural" from the title and to qualify the natural fruit essences by inserting the word "citrus".

Anti-oxidants

68. The Committee agreed to delete the provision for erythorbic acid.

Name of the Food

69. The delegation of Canada proposed that a new subparagraph be included as 7.1.6 which would be similar to that in the jams standard and which would read as follows: "The addition of artificial colour shall be declared in conjunction with

the name of the product (e.g., X with colour added)". The Canadian delegation mentioned that a provision of this type would help to protect the consumer from the possibility of fraud and that the proposal would be in agreement with the Recommended International General Standard for Labelling of Prepackaged Foods, Section 3.1(a), "The name shall indicate the true nature of the food". The delegation of the United States was of the opinion that natural or synthetic colouring matters should be treated in the same way since a product could be coloured artificially by using natural colours. Although they did not object to colouring matters being declared in the list of ingredients, they would prefer a declaration in close proximity to the name. Several delegations felt that there was no need for selective declaration on the label. The delegation of France considered that any declaration on the label should be both informative and objective as far as the consumer was concerned. The Committee decided not to insert the proposal of the delegation of Canada into the draft standard but agreed to request the Codex Committee on Food Labelling to give some guidance as to whether flavours, colouring matters and preservatives should be declared on the label other than in the list of ingredients.

List of Ingredients

70. It was noted that there was no provision for declaring "L-ascorbic acid as an antioxidant", as had been done in the Draft Standard for Canned Fruit Cocktail. The Committee agreed to include a similar provision in this standard as well as in the Draft General Standard for Jams (Fruit Preserves) and Jellies.

Status of the Standard

71. The Committee agreed to retain the Draft Standard at Step 7 of the Procedure.

Reconsideration of the Proposed Draft Standard for Canned Carrots at Step 4

72. The Committee had before it for reconsideration at Step 4 the above standard as contained in ALINORM 74/20, Appendix VIII, and government comments thereon as contained in CX/PFV 74/5 and Addenda I, II and III. The following were the main points emerging from the Committee's consideration of the above proposed draft standard.

Styles

73. The style description for whole carrots was modified at the suggestion of the delegation of the United States to specifically apply the measurement already permitted to the largest diameter of the carrots. The delegation of Australia pointed out that their industry operates to a size ratio of 5:1 and would prefer to have this inserted in the text instead of the present 3:1 ratio. They also proposed that provision be made for another style, called "baby whole carrots". Recognizing that there was an increasing demand for baby whole carrots, the Committee agreed that a new subsection for this style should be added as 1.3(b) and that the ratio used for this style would be 5:1. The agreed wording was "when carrots have a diameter of not more than 20 mm and are no longer than 100 mm, they may be described as "baby whole carrots".
74. The delegations of Denmark and the Netherlands said that another style of whole carrots - "round" or "Paris carrots" existed and questioned whether, because of their almost spherical shapes, they were in fact covered by the present whole carrot dimensional requirements. The Committee agreed that "Paris carrots"

- came within the definition of whole carrots and that there was no need to allocate them a separate style description.
75. With regard to the requirement that the largest diameter should not exceed 50 mm for whole carrots, the Committee noted that the delegation of France would prefer a system of classification with "new carrots" having a maximum diameter of 20 mm and that the maximum permitted diameter for any style of whole carrots should be 40 mm.
 76. The delegation of the United States referring to the style "sliced lengthwise or finger cut" suggested "finger cut" could be deleted since this was a little-used term in general and not at all used in the United States. This was agreed and the style amended accordingly.
 77. The delegation of France pointed out that in the French text of the style "sliced or ring cut", "rings" which was translated as "rouelles" should properly read "rondelles". With regard to the style "Julienne", this was used for a product composed of a mixture of vegetables and not for carrots alone, and therefore the name "Julienne" in French was inappropriate.
 78. The delegation of the Netherlands suggested the addition of a new style "cut" which would describe "Sections of whole carrots with a length of not more than 40 mm and a diameter smaller than or equal to 23 mm". The Committee agreed to this and to the addition of two other styles proposed and described by the delegation of the United Kingdom as — "halved" and "quartered". The list of styles was amended accordingly, and the revised version is contained in Appendix VII to this Report.
 79. The Committee also agreed with the proposal of the delegation of the Netherlands to add a new subparagraph entitled "Allowances for styles", which was in line with the Standard for Canned Asparagus, in that it provided for tolerances for the style of "cut". It was further agreed to add a sentence to provide a tolerance of 10% by count of the units that may exceed the largest dimension for all the other styles mentioned.
 80. After some discussion on the terminology of the various manners in which carrots could be styled, the delegation of France suggested that one clear way of informing the consumer and avoiding possible confusion would be appropriate illustration of the particular style on the label.

Other Permitted Ingredients

81. With regard to the heading of this section it was agreed to bring this into line with that of other standards and to change it to read "Optional Ingredients". It was also agreed to itemize salt separately from the list in 2.1.1(a) which was composed mainly of sugars. Reference to mint essence, which was a carryover from the Standard for Canned Green Peas, was deleted from 2.1.1(b) since it was not used as an ingredient in canned carrots. The delegation of France proposed that the maximum of 15% of the drained vegetable ingredients under 2.1.1(b) should be reduced to 10% but the Committee did not agree to this change.
82. Several delegations mentioned the increasing trade in carrots packed in sauces such as cheese or butter. With regard to the minimum amount of butter (3%) given in 2.1.1(c) the delegation of Switzerland felt that this was far too low when

expressed as a percentage of the total contents and proposed a level of 5%. This was in line with the written comments of the Federal Republic of Germany who had proposed 4% of milk fats. The delegation of France emphasized that if the word butter appeared on the label in canned vegetables then only butter fat could be used in the product.

83. The delegation of the United States pointed out that there was some production of carrots in their sauces which contained either butter or margarine and proposed that provision should be made under 2.1.1(c) for the use of margarine. The Committee agreed and the text was amended accordingly. The figure for butter or margarine was maintained at 3%. The delegation of Switzerland reserved its position on its preference for a minimum level of 5%.

Defects and Allowances

84. Several delegations felt that this section as it stood in the standard was not accurate and the delegations of the United States and the Netherlands undertook to review the text. As a result, a new scheme for defects and allowances was presented for consideration by the Committee. This covered Whole and Baby Whole, Halved, Quartered, Sliced Lengthwise, Chunks and Cuts (Table I) and Diced, Double-diced, Julienne and Sliced Ring Cut Styles (Table II.) Delegations agreed that the new scheme gave a much improved classification over the present text and after some discussion and a few minor changes, the Committee agreed to incorporate the two tables as the new text for Defects and Allowances. Governments could then review the section and make appropriate comments if necessary.
85. Apart from this decision, it was also agreed that more information on the identity and distribution of the carrot known as "Paris type" was needed since it was evident from the discussion that this variety was not consumed in many countries, and that in countries where it was known, there was a diversity of nomenclature.
86. It was decided that the delegations of Switzerland and Denmark should collaborate and provide the Committee with a definition of Paris type carrots and information as to which countries produced them.

Contaminants

87. The delegation of Poland pointed out these carrots were a low acid product and felt that the maximum level of tin (250 mg/kg) should not be the same as that for the high acid canned fruit products. The delegation of the United Kingdom pointed out that tin content was not only a function of acidity but also of age and temperature of storage of the pack. The Committee agreed that while awaiting further information on the factors influencing tin content, that the present level for canned carrots should remain.

Food Additives

88. After some discussion by delegations on the permitted level of Mono- sodium Glutamate in their countries, it was agreed to change the maximum level from "Not Limited" to "500 mg/kg" in line with the recommendation of the Codex Committee on Food Additives. The Committee also agreed to delete the parenthetical statement concerning the limitation of Monosodium Glutamate to

butter and other vegetable fats or oils in order to permit its use in all types of preparations.

89. For reasons which have been noted earlier in the Report (see para. 81), "Mint Flavours (Mint Oil)" and "Natural Mint Flavour" were deleted from the list of Food Additives. With this exception the rest of the revised list of additives was incorporated into the text.
90. Revised requirements for minimum drained weight were presented for the Committee's consideration.

Minimum Drained Weight

91. Following discussion of the proposal increasing the value for various styles of minimum drained weight made by the United States in their written comments, a subgroup composed of delegations of the United States and the United Kingdom revised the requirements for the various carrot styles. The Committee agreed to include the recommended figures in the text without change and the revised version appears in Appendix VII to this Report.

Name of the Food

92. With regard to butter or margarine content, it was agreed that the declaration of ALINORM 72/20A (7.1.2.3) Canned Asparagus could be adapted and inserted as 7.1.4 with the provision that when butter or margarine is used it should only be one or the other.

Net Contents

93. The delegations of Japan and Switzerland stated that in their opinion the minimum drained weight should be declared on the label and especially in the case of products packed in water.

Status of the Standard

94. In the light of the considerable amendments made to the proposed Draft Standard, the Committee agreed to return the revised text to governments for further comments at Step 3.

Consideration of the Proposed Draft Standard for Pickled Cucumbers (Cucumber Pickles) at Step 4

95. The Committee had before it for consideration at Step 4 the above standard as contained in ALINORM 74/20, Appendix XI, and government comments thereon as contained in CX/PFV 74/7 and Addenda I, II and III.

Title

96. The Committee discussed whether or not both names should be retained. It was agreed to retain both names in the Title and Scope but to refer, except for the section on Labelling, only to pickled cucumbers through out the standard.

Scope

97. It was agreed to amend the first part of the first sentence to read as follows: "This standard covers the product known as Pickled Cucumbers (Cucumber Pickles) and which is prepared with . . .". The third sentence was reworded, at the suggestion of the delegation of the United Kingdom, to read as follows: "While the product is preserved through natural fermentation or added acidulants it may

be further preserved by pasteurization with heat, other physical means or chemical preservation."

98. The delegation of France stated that the names pickled cucumbers or cucumber pickles were unknown in France and that these products contained fruits which were generally referred to as "cornichons" and went up to a maximum length of 150 mm. The Committee agreed to delete the words "generally less than 70 mm in length" from the section. It was also agreed to delete the following words from the last sentence: "under the name Cucumber Pickles or Pickled Cucumbers".

Product Definition

99. The Committee agreed with the proposal of the delegation of the United States to revise the first part of this subparagraph as follows: "Pickled Cucumbers is the product prepared from clean, sound cucumbers of cultivars conforming to the characteristics of *Cucumis sativus* L, and which (a) may or may not be peeled; (b) may contain salt. . .".

Cured Type

100. The delegation of the United Kingdom felt that the present wording was not clear and proposed that it should be altered to read: "prepared from cured, fermented or. salted cucumbers". The delegation of France suggested that the words "then further processed after desalting," be added after the proposal of the United Kingdom.

Status of the Standard

101. The Committee decided that because of the lack of time, they could no longer discuss the proposed draft standard at this session, and, therefore, agreed that the rapporteur (Poland), in collaboration with the United States, should redraft the standard in the light of the written comments which had not been discussed. It was further agreed that the revised draft be returned to Step 3 and sent out to governments as a separate document to the Report for further comments. The Committee also agreed to consider the proposed draft standard at an early stage on its agenda for its next session.

General Comments

102. The delegation of Argentina made the following general reservations reiterating its position on the following subjects:
- a) that the inclusion of the country of origin for all products should be compulsory;
 - b) that it was opposed to. the use of additives in jams and jellies and in citrus marmalade, that have not been fully endorsed by the Codex Committee on Food Additives;
 - c) that it was opposed to the use of the following colours in jams and jellies: Fast Green FCF (42053) and Azo-rubine (Carmoisine) (14720).

Other Business

103. The Committee's attention was drawn to paragraph 122 of ALINORM 74/20 in which they had requested the Commission to examine the procedure for the revision and amendment of recommended Codex standards, with a view to its

simplification. It was pointed out that if this request was to be fully implemented some suggestions as to how the procedure might be simplified would be necessary.

104. The delegation of the Netherlands stated that its intention had merely been to draw the attention of the Commission to the view that the procedure could be improved and that this matter has now been satisfactorily settled in correspondence with the Secretariat.

Future Work Programme

105. The delegation of Iran proposed that standards be elaborated for dried apricots, dates and unshelled pistachio nuts. The delegation stated that they had already prepared proposed draft standards for:

dates - - in collaboration with the United States dried apricots - - in collaboration with Australia unshelled pistachio nuts - - in collaboration with Turkey

106. The Committee's attention was drawn to the current work on dry and dried fruits being elaborated by the Economic Commission for Europe. Recommendations for a trial period of two years were already in force for dates and unshelled pistachio nuts and a standard was currently being elaborated for dried apricots. The Committee agreed that as both dates and dried apricots were mainly produced outside Europe and were traded on a world-wide basis, that it would be appropriate to elaborate Codex standards for them. It was therefore agreed that the delegation of Iran should submit these proposed draft standards for dates and dried apricots to the next session of the Committee, together with a justification based on the work priorities criteria as outlined in page 51 of the Procedural Manual, for consideration at Step 2.
107. As regards unshelled pistachio nuts, some delegations queried whether these products were processed and also whether nuts fell within the terms of reference of the Committee. The Committee agreed that Iran should provide information regarding the processing of this product and the situation with regard to international trade.
108. The delegation of the United States proposed that a standard for dehydrated potatoes be considered for possible future elaboration and agreed to provide, at a future date, a justification based on the work priorities criteria as outlined in page 51 of the Procedural Manual.
109. The Committee agreed that the Agenda for its next session would include the consideration of standards for the following products at the Steps indicated:

Jams (Fruit Preserves) and Jellies*	- Step 7
Citrus Marmalade	- Step 7
Pickled Cucumbers (Cucumber Pickles)	- Step 4
Canned Carrots	- Step 4
Dried Apricots	- Step 2
Dates	- Step 2

*In conjunction with the Report of the Informal Working Group

Date and Place of the Next Session

110. The Committee noted that its Twelfth Session would be held in Washington, D. C. in 1975. The Committee further noted that the Codex Committees on Hygiene, Labelling and Processed Fruits and Vegetables had all been scheduled to take place in May in 1975. The Committee was informed that the date for the Tenth Session of the Codex Committee on Food Labelling, to be held in Ottawa, had been tentatively scheduled for the last week in May.

Status of Standards

<u>111. Standard</u>	<u>Document No.</u>	<u>Status (Step)</u>
Canned Tomatoes	Document CAC/RS 13-1969)
Canned Peaches	" CAC/RS 14-1969)
Canned Grapefruit	" CAC/RS 15-1969)
Canned Green and Wax Beans	" CAC/RS 16-1969)
Canned Applesauce	" CAC/RS 17-1969)
Canned Sweet Corn	" CAC/RS 18-1969)
Canned Pineapple	" CAC/RS 42-1970)
Canned Mushrooms	" CAC/RS 55-1972	) 9
Canned Asparagus	" CAC/RS 56-1972)
Processed Tomato Concentrates	" CAC/RS 57-1972)
Canned Green Peas	" CAC/RS 58-1972)
Canned Plums	" CAC/RS 59-1972)
Canned Raspberries	" CAC/RS 60-1972)
Canned Pears	" CAC/RS 61-1972)
Canned Strawberries	" CAC/RS 62-1972)
Canned Pineapple - Amendment	ALINORM 72/20A, App. XI)
Canned Mandarin Oranges	ALINORM 74/20, App. VII)
Raisins	" 74/20, App. VI)
Table Olives	" 74/21, Joint Codex/ECE	) 9 *)
Canned Peaches - Amendment	" 74/20, App. IV)
Canned Tomatoes - Amendment	" 74/20, App. V)
Canned Fruit Cocktail	" 76/20, App. II	) 8
Jams (Fruit Preserves) & Jellies	" 76/20, App. V	) 6
Citrus Marmalade	76/20, App. VI	) 7
Canned Mature Processed Peas	" 74/20, App. X	) 6 **)
Canned Carrots	" 76/20, App. VII	) 3
Canned Tropical Fruit Salad	" 76/20, App. III	) 5
Pickled Cucumbers (Cucumber Pickles)	" 76/20, Para. 101	) 3
Dates	" 76/20, Paras. 105-107 & 109	) For future consideration at Step 2
Dried Figs	" 69/20, Paras. 33 & 35)
Dried Apricots	" 76/20, Paras. 105-107 & 109)
Pistachios	" 76/20, Paras. 105-107)

Dried Currants	"	68/20, para. 69)
Canned Fruit Salad (other than tropical)	"	70/20, Para. 38(c))
Canned Two Fruits Salad	"	70/20, Para. 38(c))
Dehydrated Potatoes	"	76/20, Para. 108)

*) Advanced to Step 9 "by the Tenth. Session of the Codex Alimentarius Commission

***) Advanced to Step 6 by the Tenth Session of the Codex Alimentarius Commission

LIST OF PARTICIPANTS

OFFICERS OF THE MEETING

Chairman

Dr. Floyd F. Hedlund
Chairman, Codex Committee on Processed
Fruits and Vegetables
Fruit and Vegetable Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Rapporteur

Mr. Gerald R. Parlet
Marketing Specialist
Standardization Section
Processed Products Standardization and
Inspection Branch
Fruit and Vegetable Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Food and Agriculture Organization
Representatives

Mr. Lawrie W. Jacobson
Food Standards Officer
Joint FAO/WHO Food Standards
Programme
Food and Agriculture Organization of the
United Nations
Via delle Terme di Caracalla
00100 Rome, Italy

Mr. James Hutchinson
Food Control Officer
Joint FAO/WHO Food Standards
Programme
Food and Agriculture Organization of the
United Nations
Via delle Terme di Caracalla
00100 Rome, Italy

MEMBER COUNTRIES

ARGENTINA

Delegate

Mr. Marcelo Eduardo Huergo
Second Secretary
Embassy of the Argentine
Republic
1600 New Hampshire Avenue,
N.W.
Washington, D.C. 20009

AUSTRALIA

Head of Delegation

Mr. W. C. K. Hammer
Assistant Secretary
Department of Primary Industry
Canberra, Australia

Delegate

Mr. W. J. Bettenay
Chief Fruit Officer
Department of Primary Industry
10-16 Queen Street
Melbourne, Australia

BRAZIL

Head of Delegation

Mr. Agid e Gorgatti-Netto
General Director
Institute of Food Technology
Caixa Postal, 139
Campinas, SP, Brazil

Delegate

Dr. Luis Ivan Dias Campos
Director of Special Division
Patronization and Specification
Ministry of Agriculture
Esplanada dos Ministeries
Bloco 8-6° Andar
Brazilia, Brazil

CANADA

Head of Delegation

Mr. K. H. Dean
Chief, Processed Products
Section
Fruit and Vegetable Division
Canada Department of
Agriculture
479 Sir John Carling Building
Ottawa, Ontario

Delegates

Mr. B. Smith
Office of International Standards
Health and Welfare Canada
Ottawa, Canada

Mr. Carl J. Ross
Manager, Scientific Research
Canadian Cannery, Ltd.
Box 5032
1101 Walker's Line
Burlington, Ontario

DENMARK

Delegates

Mr. Poul Anton Hansen
Agricultural Attache
Embassy of Denmark
3200 Whitehaven Street, N.W.
Washington, D.C. 20008

Mr. P. Vendelbo
Advisor
Embassy of Denmark
3200 Whitehaven Street, N.W.
Washington, D.C. 20008

FRANCE

Delegate

Mr. Jean Laguionie
Inspecteur au Service Central
de la Repression des Fraudes et
du Controle de la Qualite
Ministre de Agriculture
Paris, France

GERMANY, FEDERAL REPUBLIC OF

Delegate

Dr. Otto Bammel
Agricultural Counselor
Embassy of the Federal
Republic of Germany
4645 Reservoir Road, N.W.
Washington, D.C. 20007

GHANA

Delegate

Mr. F. J. Tekyi
General Manager, Cannery
Division
Ghana Industrial Holding
Corporation
P. O. Box 115
Nsawan, Ghana

IRAN

Head of Delegation

Dr. Abass Khalesi
Director for the Division of
Agricultural Industries
ISIRI
P. O. Box 2937
Tehran, Iran

Delegate

Mr. Mohammed Razi
Director General of the Division
for Supervision on Food Stuff
and Cosmetics
Ministry of Health
Tehran, Iran

ITALY

Head of Delegation

Prof. Angelo Stacchini
Istituto Superiore Sanita
Viale Regina Elena 299
Roma, Italy

Delegate

Mr. Luigi Binetti
Chemist
Ministry of Health
Rome, Italy

JAPAN

Head of Delegation

Mr. Shinsuke Narisawa
Technical Official
Consumer Division
Food and Marketing Bureau
Ministry of Agriculture and
Forestry
2-2-1 Kasumigaseki Ghiyoda –
ku
Tokyo, Japan

Delegates

Mr. Susumu Matsuoka
First Secretary
Embassy of Japan
2520 Massachusetts Avenue,
N.W.
Washington, D.C. 20008

Mr. Takashi Ichikawa
First Secretary (Welfare)
Embassy of Japan
2530 Massachusetts Avenue,
N.W.
Washington, D.C. 20008

THE LIBYAN ARAB REPUBLIC

Head of Delegation

Mr. Ali Fathi Shahawy
Chief, Nutrition and Food Control
Section
Secretary General, National
Food and Nutrition Council
Ministry of Health
P. O. Box 1583
Tripoli, Libya

Delegates

Mr. Ramadan Musa Tayeb
Chief, Health Education Section
Ministry of Health, P.O. Box
8369
Tripoli, Libya

Mr. Fauzi Bashir Bedri
Nutritionist
Nutrition and Food Control
Section
Ministry of Health
Tripoli, Libya

MEXICO

Head of Delegation

Dr. Heriberto Barrera
Technical Assessor
Comision Nacional de
Fruticultura
Apartado Postal #41-740
Mexico (18), D.F.

Mr. Leonides T. Caday
Counselor and Second
Secretary
Embassy of the Philippines
1617 Massachusetts Avenue,
N.W.
Washington, D.C. 20036

Delegate

Mr. Armando Bejarano Almada
Department of International
Standards
Codex Contact Point
Bureau of Standards
Department of Industry and
Commerce
Mexico, D.F., Mexico

POLAND

Delegate

Mr. Wacław Orłowski
Chief, Fruits and Vegetables
Section
Quality Inspection Office
Ministry of Foreign Trade
Stepinska 9 str.
Warsaw, Poland

NETHERLANDS

Head of Delegation

Dr. W. G. Aldershoff
Public Health Officer
Department of Public Health and
Environment
Leidschendam, The Netherlands

SWITZERLAND

Head of Delegation

Mr. Hans U. Pfister
Head of Codex Section
Swiss Federal Health Service
Haslerstrasse 16
CH-3008 Bern, Switzerland

Delegates

Mr. L. Gersons
Adviser, Sprenger Institute
Ministry of Agriculture
6 Haagsteeg
Wageningen, The Netherlands

Mr. Gustaaf W. J. Pieters
Agricultural Counselor
Embassy of the Netherlands
4200 Linnean Avenue, N.W.
Washington, D.C. 20008

Delegate

Dr. G. F. Schubiger
Sous-Directeur
Nestec
CH-1814 La Tour-de-Peilz,
Switzerland

NORWAY

Delegate

Mr. O. Tveté
Director, Food Inspection
Ministry of Agriculture
Gladengvein 3B
Oslo 6, Norway

THAILAND

Head of Delegation

Mr. Amara Bhumiratana
Director
Institute of Food Research and
Product Development
P.O. Box 4-170
Bangkok 4, Thailand

Delegate

Mrs. Rabieb Bhumiratana
Deputy Director
Department of Science
Bangkok, Thailand

PHILIPPINES

Delegate

UNITED KINGDOM

Head of Delegation

Mr. J. Harvey
Senior Executive Officer
Ministry of Agriculture, Fisheries
and Food
Great Westminster House
Horseferry Road
London SW1, England

Delegates

Mr. J. B. Hirons
Principal Scientific Officer
Ministry of Agriculture, Fisheries
and Food
Great Westminster House
Horseferry Road
London SW1, England

Mr. R. Sawyer
Superintendent of Fruit and
Nutrition
Laboratory of the Government
Chemist
Cornwall House, Stamford Street
London SE1, England

Mr. H. R. Hinton
Director of Research
Campden Food Preservation
Research Association
Chipping Campden
Gloucestershire, England

Mr. F. M. Gilliatt
Director, Industry and
Government Relations
Del Monte Foods Ltd.
West Lynn
King's Lynn
Norfolk, England

Dr. Z. Hybs
Hybs Foods International Ltd.
55 Park Street
Bristol BS1 5NT, England

UNITED STATES

Head of Delegation

Mr. Fred Dunn
Deputy Director
Fruit and Vegetable Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Delegates

*Mr. Lowrie M. Beacham
Assistant to the Director
Bureau of Foods, for
International Standards
Bureau of Foods, HFF-40
Food and Drug Administration,
HEW
Washington, D.C. 20204

* See Observer Organizations

Mr. David A. Patton
Assistant Chief, PPS&I Branch
Fruit and Vegetable Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Mr. Dale C. Dunham
Head, Standardization Section
PPS&I Branch
Fruit and Vegetable Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Mr. Ronald J. Tolley
Assistant to Executive Vice
President
National Canners Association
1133 20th Street, N.W.
Washington, D.C. 20036

Mr. Arthur W. Hansen
Director, Consumer and
Environmental Protection
Del Monte Corporation
215 Fremont Street, Box 3575
San Francisco, California 94119

Mr. Frederick D. Johnson
Director of Research
Bama Food Products
Borden Foods Division, Borden,
Inc.
Box 15068
Houston, Texas 77020

Dr. Lome A. Campbell
Food Regulations Administrator
Sunkist Growers, Inc.
P. O. Box 7888, Valley Annex
Van Nuys, California 91409

Mr. M. F. Markel
Markel, Hill and Byerley
1625 K Street, N.W.
Washington, D.C. 20006

Mr. James Rogers
Director Quality Control
California Cannery and Growers
P. O. Box 67
Sunnyvale, California 94068

VENEZUELA

Delegate

Ms. Violeta Matos
Second Secretary
Embassy of Venezuela
2445 Massachusetts Avenue,
N.W.
Washington, D.C. 20008

OBSERVER COUNTRY

SOUTH AFRICA

Mr. P.J.A. Swart
Agricultural Attache (Economic)
Embassy of South Africa
3051 Massachusetts Avenue, N.W.
Washington, D.C. 20008

OBSERVER ORGANIZATIONS

ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS (AOAC)

*Mr. Lowrie M. Beacham
Association of Official Analytical
Chemists
Box 540, Benjamin Franklin Station
Washington, D.C. 20260

*See U.S. Delegation

EUROPEAN ECONOMIC COMMUNITY (EEC)

Mr. Georges Castille
Administrateur Principal
Commission of the European
Communities
200, rue de la Loi
1040 Bruxelles,
Belgium

Mr. Georges Adelbrecht
Administrateur au Secretariat
General
du Conseil des Communautés
Europeennes
170, rue de la Loi
1040 Bruxelles, Belgium

INTERNATIONAL FEDERATION OF GLUCOSE MANUFACTURERS (IFG)

Mr. Charles Feldberg
Manager, International Food
Regulations
CPC International, Inc.
International Plaza
Englewood Cliffs, New Jersey 07632

Mr. Carl Snyder
International Food Regulations
CPC International, Inc.
International Plaza
Englewood Cliffs, New Jersey 07632

INTERNATIONAL PECTIN PRODUCERS ASSOCIATION (IPPA)

Mr. Raldon R. Wiles
Chemist
Lemon Products Division
Sunkist Growers
P.O. Box 640
Corona, California 91720

DRAFT STANDARD
FOR
CANNED FRUIT COCKTAIL
Advanced to STEP 8

1. DESCRIPTION

1.1 Product definition

1.1.1 Canned Fruit Cocktail is the product (a) prepared from a mixture of small fruits and small pieces of fruits (as further described in this standard) and is prepared from fresh or frozen or canned fruits; (b) packed with water or other suitable liquid packing medium, and may be packed with seasonings or flavourings appropriate for the product; and (c) processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

1.1.2 The fruits shall be of the following kinds and styles:

- Peaches - - - - - Any firm yellow variety of the species Prunus persica L., excluding nectarine varieties; peeled; pitted; diced, including clingstone and freestone types.
- Pears - - - - - Any variety of the species Pyrus communis L. or Pyrus sinensis L.; peeled; cored; diced.
- Pineapple - - - - - Any variety of the species Ananas Comosus L.; peeled; cored; sectors or diced.
- Grapes - - - - - Any seedless variety of the species Vitis vinifera L. or Vitis labrusca L.; whole.
-
- Cherries - - - - - Any variety of the species Prunus cerasus L.; halves or whole; pitted or unpitted and which may be -
- (a) any light, sweet variety; or
 - (b) artificially coloured red; or
 - (c) artificially coloured red and flavoured, whether natural or artificial.

1.2 Product designation

1.2.1 5 fruits — Fruit Cocktail

A mixture of the five fruits of the kinds and styles described in this standard.

1.2.2 4 fruits — Fruit Cocktail

A mixture of the same kinds and styles described in this standard, except that:

- (a) Cherries may be omitted; or
- (b) Grapes may be omitted.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Proportions of fruits (basic ingredients)

Fruits shall be in the following proportions, based on the individual drained fruit weights in relation to the drained weights of all the fruits:

	5 fruits Fruit Cocktail	4 fruits Fruit Cocktail
Peaches	30% to 50%	30% to 50%
Pears	25% to 45%	25% to 45%
Pineapple	6% to 16%	6% to 25%
Grapes	6% to 20%	- and either - 6% to 20%
Cherries	2% to 6%	- - or - - 2% to 15%

2.1.1 A lot will be considered as meeting the requirements for Proportions of Fruits when:

- (1) The average of the individual fruit proportions from all containers in the sample is within the range required for the individual fruits; and
- (2) The number of individual containers which are not within the range for any one or more fruits do not exceed the acceptance number (c) of the appropriate sampling plan. (AQL 6.5) in the Sampling Plans for Processed Fruits and Vegetables.

2.2 Packing media

Canned Fruit Cocktail may be packed in any one of the following:

- (a) Water----- in which water is the sole packing medium.
- (b) Water and Fruit Juice-- -in which water and fruit juice (s) from the specified fruits, is the sole liquid packing medium.
- (c) Fruit Juice-- - - - - in which one or more fruit juice (s) from the specified fruits, which may- be strained or filtered, is the sole liquid packing medium.
- (d) With Sugar (s) - - - - any of the foregoing packing media (a) through (c) may have one or more of the following sugars added: sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup.

2.2.1 Classification of packing media when sugars are added

- (a) When sugars are added to fruit juice (s), the liquid media shall be not less than 14° Brix and they are classified on the basis of the cut-out strength as follows:

Lightly sweetened (name of fruit) juice - Not less than 14° Brix.

Heavily sweetened (name of fruit) juice - Not less than 18° Brix.

- (b) When sugars are added to water or water and one or more fruit juices the liquid media shall be classified on the basis of the cut-out strength as follows:

Basic Syrup Strengths

Light Syrup - - - - - Not less than 14° Brix.

Heavy Syrup- - - - - Not less than 18° Brix.

Optional Packing Media

When not prohibited in the country of sale, the following packing media may be used:

<u>Slightly Sweetened Water</u>)	Not less than 10° Brix but less than 14° Brix.
<u>Water Slightly Sweetened</u>)	
<u>Extra Light Syrup</u>)	

Extra Heavy Syrup Not less than 22° Brix.

2.2.2 Compliance with packing media classification

Cut-out strength of sweetened juice or syrup is to be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if such there be.

2.3 Other ingredients Spices and mint.

2.4 Sizes and shapes of fruits

2.4.1 Diced peaches, pears, or pineapple -

75% or more of all such drained fruits are of approximate cube-shapes which:

- (a) are not over 20 mm in greatest edge dimension; and
- (b) will not pass through square meshes of 8 mm.

2.4.2 Sectors of pineapple -

80% or more of all the drained pineapple portion approximates wedge-shapes of these dimensions:

- (a) outside arc - - - - - 10 mm to 25 mm; and
- (b) thickness - - - - - 10 mm to 15 mm; and
- (c) radius (from inside to outside arc) - - 20 mm to 40 mm.

2.4.3 Whole grapes or cherries -

90% or more by count (based on sample average) of whole grapes, or of whole cherries, approximate normal shape except for proper preparation (such as removing pits or stems) and:

- (a) are not broken into two or more parts;
- (b) are not seriously crushed, mutilated, or torn.

2.4.4 Halved cherries -

80% or more by count (based on sample average) of the cherry units are approximate halves which are not broken into two or more parts.

2.5 Quality Criteria

2.5.1 Colour - - Canned Fruit Cocktail shall have normal colour except that a slight leaching of colour from the coloured cherries is acceptable.

2.5.2 Flavour - - Canned Fruit Cocktail shall have a normal flavour characteristic for each fruit and for the entire mixture.

Canned Fruit Cocktail with special ingredients shall have the flavour characteristic of that imparted by the fruits in the product and the other substances used.

2.5.3 Texture

The fruit ingredients shall not be excessively firm nor excessively soft, as is appropriate for the respective fruit.

2.5.4 Defects and Allowances

Canned Fruit cocktail shall be substantially free from defects within the limits set forth as follows: (See sampling procedure Section 8.1.1.2)

		<u>Maximum Limits</u> (based on the weight of drained fruit)
(a)	<u>Blemished fruit pieces</u> - - - - - (consisting of pieces of fruit with dark surface areas, spots penetrating the fruit, and other abnormalities)	20% m/m Total of all fruit units so affected
(b)	<u>Peel</u> - - (based on averages) - - - - - (considered a defect only when occurring on, or from, those fruits which are peeled)	25 sq. cm aggregate area per kg
(c)	<u>Pit material</u> - - (based on averages) - - (consisting of pieces of pit or of fruit stones and hard and sharp pit points; very small pit fragments of less than 5 mm in greatest dimension which do not have sharp points or edges are disregarded)	1 piece, of any size, per 2 kg
(d)	<u>Small stems</u> - - (based on averages) - - (such as capstems from grapes)	5 per kg
(e)	<u>Large stems</u> - - (based on averages) - (such as from peaches, pears, or cherries)	1 large stem, or piece thereof, per kg

2.5.5 Classification of "defectives"

A container shall be considered a "defective" that fails to meet one or more of:

- (1) the applicable requirements in 2.4.1 through 2.4.4 (except for style and shapes for grapes and cherries which are based on averages); and
- (2) The applicable quality requirements in 2.5.1 through 2.5.4 (except for peel, pit material, and stems which are based on averages).

2.5.6 Acceptance

A lot will be considered as meeting the applicable quality and other requirements referred to in sub-section 2.5.5 when:

- (a) for those requirements which are not based on averages —the number of "defectives", as defined in sub-section 2.5.5, does not exceed the acceptance number (c) of the appropriate Sampling Plans for Processed Fruits and Vegetables ; and
- (b) the requirements which are based on sample averages are complied with.

3 FOOD ADDITIVES

Maximum Level in the End Product

Colouring matter

Erythrosine ----- (To colour cherries only when artificially coloured cherries are used)	Limited by Good Manufacturing Practice (Temporarily endorsed)
---	---

Flavours

Natural fruit essence - - - - -	Limited by Good Manufacturing Practice (Endorsed)
---------------------------------	---

Natural flavours and their identical synthetic equivalents- - - - -	Limited by Good Manufacturing Practice (Temporarily Endorsed)
---	---

Cherry Laurel Oil -----	10 mg/kg in the total product (Endorsed)
-------------------------	--

and/or to flavour artificially coloured cherries only

Bitter Almond Oil -----	40 mg/kg in the total product (Endorsed)
-------------------------	--

Anti-oxidant

L-Ascorbic acid -----	500 mg/kg (Temporarily Endorsed)
-----------------------	----------------------------------

4. CONTAMINANTS

The following provision in respect of contaminants is subject to endorsement by the Codex Committee on Food Additives:

Tin, maximum level -250 mg/kg, calculated as Sn.

5. HYGIENE

- 5.1 It is recommended that the product covered by the provisions of this standard be prepared in accordance with the International Code of Hygienic Practice for Canned Fruit and Vegetable Products recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 2-1969).
- 5.2 To the extent possible in good manufacturing practice the product shall be free from objectionable matter.
- 5.3 When tested by appropriate methods of sampling and examination, the product:
- (a) shall be free from microorganisms capable of development under normal conditions of storage; and
 - (b) shall not contain any substances originating from microorganisms in amounts which may represent a hazard to health.

6. WEIGHTS AND MEASURES

6.1 Fill of container

6.1.1 Minimum fill

The container shall be well filled with fruit and the product (including packing medium) 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.

6.1.2 Classification of "defective"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 6.1.1 shall be considered a "defective".

6.1.3 Acceptance

A lot will be considered as meeting the requirement of 6.1.1 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plan (AQL 6.5) in the Sampling Plans for Processed Fruits and Vegetables, CAC/RM 42-1969.

6.1.4 Minimum Drained Weight

- 6.1.4.1 The drained weight of the product shall be not less than 60% of the weight of distilled water at 20° C. which the sealed container will hold when completely filled.
- 6.1.4.2 The requirement 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.

7. LABELLING

In addition to Sections 1, 2, 4, and 6 of the Recommended International General Standard for the Labelling of Prepackaged Foods (Ref. No. CAC/RS 1-1969), the following specific provisions apply:

7.1 The name of the food '

- 7.1.1 The name of the product shall be "Fruit Cocktail".

7.1.2 The following, as applicable, shall be included as part of the name or in close proximity to the name, unless in the country where the product is sold a true pictorial representation of the product accompanied by a complete list of the fruits in the statement of ingredients would suffice in accordance with its national legislation:

"5 Fruits" or "With. Five Fruits";

or

"4 Fruits" or "With Four Fruits".

7.1.3 When the packing medium is composed of water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as part of the name or in close proximity thereto as:

"In water" or "Packed in water"

7.1.4 When the packing medium is composed solely of a single fruit juice, the packing medium shall be declared as part of the name or in close proximity thereto as:

"In (name of fruit) juice"

7.1.5 When the packing medium is composed of two or more fruit juices, it shall be declared as part of the name or in close proximity thereto:

"In (name of fruits) juice"

or

"In fruit juices"

or

In mixed fruit juices"

7.1.6 When sugars are added to one or more fruit juices, the packing medium shall be declared as may be appropriate:

"Lightly sweetened (name of fruit) juice"

or

"Heavily sweetened (name of fruits) juice (s)"

or

"Lightly sweetened fruit juices"

or

"Heavily sweetened mixed fruit juice (s)"

7.1.7 When sugars are added to water, or water and one or more fruit juices, the packing medium shall be declared as may be appropriate:

"Light syrup" or "Heavy syrup"

or

"Water slightly sweetened" or "Slightly sweetened water"

or

"Extra light syrup" or "Extra heavy syrup"

- 7.1.8 When the packing medium contains water and one or more fruit juice (s), in which the fruit juice comprises 50% or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as for example:

"In (name of fruits) juice (s) and water"

- 7.1.9 A declaration, as part of the name or in close proximity to the name, shall be made of any characteristic flavouring; e.g. "With - - X - -", as appropriate.

7.2 List of ingredients

- 7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with sub-section 3.2 (c) of the General Standard for the Labelling of Prepackaged Foods, except as provided in 7.2.2 and 7.2.3.

- 7.2.2 When cherries are artificially coloured and/or artificially flavoured, the following declarations are permitted in the list of ingredients or elsewhere in lieu of naming the additive:

"Cherries artificially coloured red";

or

"Cherries artificially coloured red and artificially flavoured".

- 7.2.3 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients in the following manner:

"L-Ascorbic acid added as an anti-oxidant".

7.3 Net contents

The net contents shall be declared by weight in either the metric ("Systeme International" units) or avoirdupois or both systems of measurement as required by the country in which the product is sold.

7.4 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter, or vendor of the product shall be declared.

7.5 Country of origin

- (a) The country of origin of the product shall be declared if its omission would mislead or deceive the consumer.
- (b) When the product undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling.

8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods, and have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

8.1 Sampling

Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

8.1.1 Size of Sample Unit

- 8.1.1.1 For ascertaining proportions of fruits and fill of container (including drained weight) the entire container shall be the sample unit.
- 8.1.1.2 For ascertaining compliance with percentage requirements for Sizes and Shapes of fruits and Defects, the sample unit shall be:
- (1) the entire container when it holds 1 litre or less; or
 - (2) 500 g of drained fruit (of a representative mixture) when the container holds more than 1 litre.

8.2 Ascertaining Proportions of Fruit

8.2.1 Procedure

- 8.2.1.1 Determine drained weight and keep liquid and fruit separate;
- 8.2.1.2 Separate individual fruit ingredients, removing those fruits present in lesser amounts (such as cherries, pineapple, grapes);
- 8.2.1.3 Weigh the individual fruit ingredients to the nearest gram;
- 8.2.1.4 Record each fruit's weight and add all of these weights.

8.2.2 Calculation and Expressions of Results

Calculate the percentage of fruit proportions:

$$\frac{\text{each fruit's weight}}{\text{*sum of all fruit weights}} \times 100 = \% \text{ of the fruit weight}$$

* Do not use the original drained weight of the product before separation of the fruits.

8.3 Determination of Drained Weight

According to the FAO/WHO Codex Alimentarius Methods of Analysis for Processed Fruits and Vegetables CAC/RM 36-1970, Determination of Drained Weight Method I).

Results are expressed as % m/m calculated on the basis of the mass of distilled water at 20° C which the sealed container will hold when completely filled.

8.4 Syrup Measurement (Refractometric Method)

Syrup strength is measured by the refractometric method and results are expressed as percent by weight (m/m) of sucrose ("degrees Brix"). Reference: Official Methods of Analysis of the Association of Official Analytical Chemists, 11th Edition, 1970, Section 31.011 except make no correction for invert sugar.

8.5 Method for Determination of Water Capacity of Containers

8.5.1 Metal containers

8.5.1.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container after cutting out the lid without removing or altering the height of the double seam.

- (3) Fill the container with distilled water at 20° C. to 4.76 mm vertical distance below the top level of the container, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

8.5.2 Glass containers

8.5.2.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container.
- (3) Fill the container with distilled water at 20° C. to the level of the top thereof, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

Proposed Draft Standard
For
CANNED TROPICAL FRUIT SALAD
Advanced to Step 5

1. DESCRIPTION

1.1 Product Definition

Canned Tropical Fruit Salad is the product (a) prepared from a mixture of basic fruits as specified in Section 1.2(a) to which may be added one or more optional fruits as specified in Section 1.2(b); (b) such fruits may be fresh, frozen or canned; (c) the fruit mixture is packed with water or other suitable liquid packing medium and may be packed with nutritive sweeteners and processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

1.2 Kinds and Styles of Fruits

The fruit ingredient shall consist of each of the three fruit groups listed under Basic Fruits to which may be added any one or more of the fruits listed under Optional Fruits. The fruit shall be peeled, cored, trimmed, deseeded or pitted as may be applicable for the respective fruit in normal culinary preparation.

(a) Basic Fruits

1. Pineapple (Ananas comosus) - tidbits, pieces, dices, chips or crisp cut.
2. Papaya (Carica papaya) or Mango (Mangifera Indica)- Singly or in combination - slices, dices or sections,.
3. Banana (Cultivated edible species of Musa) - Slices or dices.

(b) Optional Fruits

Litchi -(Litchi chlnensis) whole or broken segments.

Cashew -(Anacardium occidentale) as flesh.

Guava (Guayaba)-(Psidium Guajava) quarters, slices, dices or puree.

Longan -(Euphoria Longana) whole or broken segments.

Oranges- - - - - (Citrus Sinesis & Citrus Reticulata);
(Including Mandarin) Whole Segments

Grapefruit- - - - - (Citrus Paradisi) whole or half
segments.

Grapes- - - - - (Cultivated Edible species of Vitis)
Whole grapes of any seedless
variety.

Maraschino (Prepared from fruit conforming with
Cherries- - - - - the characteristics of Prunus avium)

- whole or halves (and pitted).
- Passionfruit - - - - - (Cultivated edible species of Passiflora) pulp with or without seeds.
- Jack Fruit - - - - - (Artocarpus Integrifolia) slices.
- Melon - - - - - (Cucumis Melo) slices, dices or balls.
- Rambutan - - - - - (Nephelium Lappaceum) whole or broken segments.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Proportion of Fruits (basic ingredients)

Fruits shall be in the following proportions, based on the individual drained fruit weights in relation to the drained weights of all the fruits:

	<u>Minimum</u>	<u>Maximum</u>
<u>Basic Fruits</u>		
Pineapple	45%	65%
Papaya or Mango (singly or in combination)	25%	50%
Banana	5%	20%
<u>Optional Fruits</u>		
Litchi	5%	20%
Melon	5%	20%
Longan	5%	20%
Guava (Guayaba)	5%	20%
Cashew	2%	5%
Jack Fruit	5%	20%
Grape	3%	15%
Rambutan	5%	20%
Oranges (Including Mandarin)	3%	15%
Maraschino Cherries	1%	4%
Passionfruit	1%	5%
Grapefruit	3%	15%

2.1.1 A lot will be considered as meeting the requirements for Proportions of Fruits when:

- (1) The average of the individual fruit proportions from all containers in the sample is within the range required for the individual fruits; and
- (2) The number of individual containers which are not within the range for any one or more fruits does not exceed the acceptance number (c) of the

appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, (CAC/RM 42-1969).

2.2 Packing Media

Canned Tropical Fruit Salad may be packed in any one of the following:

- (a) Water - - - - - in which water is the sole packing medium.
- (b) Water and Fruit Juice - - - - in which water and fruit juice (s) from the specified fruits, is the sole liquid packing medium.
- (c) Fruit Juice - - - - - in which one or more fruit juice (s) from the specified fruits, which may be strained or filtered, is the sole liquid packing medium.
- (d) With Sugar (s) - - - - - any of the foregoing packing media (a) through (c) may have one or more of the following sugars added: sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup, fructose, and fructose syrup.

2.2.1 Classification of packing media when sugars are added

- (a) When sugars are added to fruit juice (s), the liquid media shall be not less than 14° Brix, and they are classified on the basis of the cut-out strength as follows:

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

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

- (b) When sugars are added to water or water and one or more fruit juices the liquid media shall be classified on the basis of the cut-out strength as follows:

Basic Syrup Strengths

Light Syrup not less than 14° Brix.

Heavy Syrup not less than 18° Brix.

Optional Packing Media

When not prohibited in the country of sale, the following packing media may be used:

<u>Slightly Sweetened Water</u>	)	Not less than 10° Brix but less
<u>Water Slightly Sweetened</u>	)	than 14° Brix.
<u>Extra Light Syrup</u>)	
<u>Extra Heavy Syrup</u>	)	Not less than 22° Brix.

2.2.2 Compliance with packing media classification

Cut-out strength of sweetened juice or syrup is to be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if such there be.

2.3 Other Ingredients

Nutritive sweeteners, flavourings other than artificial flavourings, and natural fruit essences.

2.4 Quality Criteria

2.4.1 Colour

Canned Tropical Fruit Salad shall have a colour characteristic of the mixed processed fruit, except that a slight leaching of colour from the coloured cherries is acceptable.

2.4.2 Flavour

Canned Tropical Fruit Salad shall have a normal flavour and odour characteristic for the particular blend of fruit.

2.4.3 Texture

The texture of the fruit ingredient should be appropriate for the respective fruit.

2.4.4 Defects and Allowances

Canned Tropical Fruit Salad shall be substantially free from defects within the following prescribed limits when examined in accordance with the sampling plan specified in 8.1.1:

	<u>Defect</u>	<u>Maximum Limits</u>
(a)	<u>Blemished fruit pieces</u> - - - - - (consisting of pieces of fruit with dark surface areas, spots penetrating the fruit, and other abnormalities).	2 pieces/100 g of drained fruit
(b)	<u>Peel</u> - - (based on averages) - - (considered a defect only when occurring on, or from those fruits which are peeled).	6.5 cm ² /500 g of total contents
(c)	<u>Seeds (other than Passionfruit), Seed Material & Extraneous Vegetable Matter</u>	2 g/500 g of total contents

2.4.5 Classification of "defectives"

A container shall be considered a "defective" that fails to meet one or more of the applicable quality requirements in 2.4.1 through 2.4.4.

2.4.6 Acceptance

A lot will be considered as meeting the applicable quality and other requirements referred to in 2.4.5 when:

- (a) for those requirements which are not based on average - the number of "defectives", as defined in subsection 2.4.5, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969, and
- (b) The requirements which are based on sample averages are complied with.

3. FOOD ADDITIVES

The following provisions in respect of food additives and their specifications as contained in section ... of the Codex Alimentarius are subject to endorsement by the Codex Committee on Food Additives.

<u>Additives</u>	<u>Maximum Level in the End Product</u>
<u>Colouring Matter</u>	
Erythrosine ----- (To colour cherries)	Limited by Good Manufacturing Practice (Temporarily Endorsed)
<u>Flavours</u>	
Cherry Laurel Oil	----- 10 mg/kg in the total product (endorsed)
	|----- to flavor artificially coloured cherries only
Bitter Almond Oil	----- 40 mg/kg in the total product (endorsed)
<u>Anti-Oxidant</u>	
L-Ascorbic acid -----	700 mg/kg (Endorsement Postponed)
<u>Acidifying Agent</u>	
Citric Acid -----	Limited by good manufacturing practice (Endorsed)
<u>Firming Agents</u>	
Calcium Chloride)	350 mg/kg as Ca (Endorsed)
Calcium Lactate)	
Calcium Gluconate)	

4. CONTAMINANTS

The following provision in respect of contaminants is subject to endorsement by the Codex Committee on Food Additives:

Tin, maximum level - - - - - 250 mg/kg, calculated as Sn.

5. HYGIENE

- 5.1 It is recommended that the product covered by the provisions of this Standard be prepared in accordance with the International Code of Hygienic Practice for Canned Fruit and Vegetable Products, (Ref. No. CAC/RCP 2-1969).
- 5.2 To the extent possible in good manufacturing practice the product shall be free from objectionable matter.
- 5.3 When tested by appropriate methods of sampling and examination, the product:
 - (a) shall be free from microorganisms capable of development under normal conditions of storage; and
 - (b) shall not contain any substances originating from micro-organisms in amounts which may represent a hazard to health.

6. WEIGHTS AND MEASURES

6.1 Fill of Container

6.1.1 Minimum Fill

The container shall be well filled with fruit and the product (including packing medium) 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.

6.1.1.1. Classification of "defective"

A container that fails to meet the requirement for minimum fill of 6.1.1 shall be considered a defective.

6.1.1.2 Acceptance

A lot will be considered as meeting the requirements of 6.1.1 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

6.1.2 Minimum Drained Weight

6.1.2.1. The drained weight of the product shall not be less than 50% of the weight of distilled water at 20° C which the sealed container will hold when completely filled.

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

7. LABELLING

In addition to Sections 1, 2, 4, and 6 of the Recommended International General Standard for the Labelling of Prepackaged Foods (Ref. No. CAC/RS 1-1969), the following specific provisions apply:

7.1 The name of the food

7.1.1 The name of the product shall be "Tropical Fruit Salad".

7.1.2 When the packing medium is composed of water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as part of the name or in close proximity thereto as:

"In water" or "Packed in water"

7.1.3 When the packing medium is composed solely of a single fruit juice, the packing medium shall be declared as part of the name or in close proximity thereto as:

"In (name of fruit) juice"

7.1.4 When the packing medium is composed of two or more fruit juices, it shall be declared as part of the name or in close proximity thereto:

"In (name of fruits) juice"

or

"In fruit juices"

or

"In mixed fruit juices"

- 7.1.5 When sugars are added to one or more fruit juices, the packing medium shall be declared as may be appropriate:

"Lightly sweetened (name of fruit) juice"

or

"Heavily sweetened (name of fruits) juice (s)"

or

"Lightly sweetened fruit juices"

or

"Heavily sweetened mixed fruit juice (s)"

- 7.1.6 When sugars are added to water, or water and one or more fruit juices, the packing medium shall be declared as may be appropriate:

"Light syrup" or "Heavy syrup"

or

"Water slightly sweetened" or "Slightly sweetened water"

or

"Extra light syrup" or "Extra heavy syrup"

- 7.1.7 When the packing medium contains water and one or more fruit juice (s), in which the fruit juice comprises 50% or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as for example:

"(name of fruits) juice (s) and water"

7.2 List of Ingredients

- 7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with subsection 3.2 (c) of the General Standard for the Labelling of Prepackaged Foods, except as provided in 7.2.2 and 7.2.3.

- 7.2.2 The declaration for Maraschino Cherries shall be:

"Cherries artificially coloured and flavoured"

- 7.2.3 If ascorbic acid is added to preserve colour; its presence shall be declared in the list of ingredients in the following manner:

"L-ascorbic acid added as an anti-oxidant"

7.3 Net Contents

The net contents shall be declared by weight in either the metric ("Systeme International" units) or avoirdupois or both systems of measurement as required by the country in which the product is sold.

7.4 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter, or vendor of the product shall be declared.

7.5 Country of Origin

- (a) The country of origin of the product shall be declared if its omission would mislead or deceive the consumer.
- (b) When the product undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

8. Methods of Sampling, Analysis, and Examination

The methods of analysis and sampling described or referred to hereunder are international referee methods and have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

8.1 Sampling

Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

8.1.1 Size of Sample Unit

- 8.1.1.1 For ascertaining proportions of fruits and fill of container (including drained weight) the entire container shall be the sample unit.
- 8.1.1.2 For ascertaining compliance with percentage requirements for Sizes and Shapes of fruits and Defects, the sample unit shall be:
 - (1) entire container when it holds 1 litre or less; or
 - (2) 500 g of drained fruit (of a representative mixture) when the container holds more than 1 litre.

8.2 Ascertaining Proportions of Fruit

8.2.1 Procedure

- 8.2.1.1 Determine drained weight and keep liquid and fruit separate;
- 8.2.1.2 Separate individual fruit ingredients, removing those fruits present in lesser amounts (such as cherries, grapes);
- 8.2.1.3 Weigh the individual fruit ingredients to the nearest gram;
- 8.2.1.4 Record each fruit's weight and add all of these weights.

8.2.2 Calculation and Expressions of Results

Calculate the percentage of fruit proportions:

$$\frac{\text{each fruit's weight}}{\text{*sum of all fruit weights}} \times 100 = \% \text{ of the fruit weight}$$

* Do not use the original drained weight of the product before separation of the fruits.

8.3 Determination of Drained Weight

According to the FAO/WHO Codex Alimentarius methods of Analysis for Processed Fruits and Vegetables CAC/RM 36-1970, Determination of Drained Weight Method I.

Results are expressed as % m/m calculated on the basis of the mass of distilled water at 20° C which the sealed container will hold when completely filled.

8.4 Syrup Measurement (Refractometric Method)

Syrup strength is measured by the refractometric method and results are expressed as percent by weight (m/m) of sucrose ("degrees Brix") Reference: Official Methods of Analysis of the Association of Official Analytical Chemists, 11th Edition, Section 31.011 except make no correction for invert sugar.

8.5 Method for determination of water capacity of containers

8.5.1 Metal Containers

8.5.1.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container after cutting out the lid without removing or altering the height of the double seam.
- (3) Fill the container with distilled water at 20° C to 4.76 mm vertical distance below the top level of the container, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

8.5.2 Glass containers

8.5.2.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container.
- (3) Fill the container with distilled water at 20° C to the level of the top thereof, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

REPORT OF THE INFORMAL WORKING GROUP

ON THE DRAFT GENERAL STANDARD FOR JAMS (FRUIT PRESERVES) AND
JELLIES

1. The Working Group met in the United States Department of Agriculture, Washington, D.C., from the 30 to 31 May 1974, under the chairmanship of Mr. John Harvey (United Kingdom). Representatives from Australia, The Netherlands, Switzerland, the United Kingdom (Coordinator) and the United States were present.
2. The Working Group agreed that it was necessary to draw a distinction between two different concepts of jam, "Traditional Jam" and "Modern Jam". "Traditional Jam" being the jam with a high soluble solids level which allows the product to keep in ambient temperatures for long periods after opening. "Modern Jam" is the jam which consists of a mixture of fruit and sugars which may not have been boiled, with low soluble solids, with or without preservative and with or without special keeping instructions after opening.
3. The Working Group agreed that before discussing the fruit content it was necessary to first consider whether the draft standard should contain only one minimum fruit content level or, as is the practice in some countries, two fruit levels and what these levels should be. The delegation of Switzerland suggested that a third level might also be considered which contains an even higher fruit level (60%) than the two mentioned above, and, therefore, would not reach the high soluble solids level of the "Traditional Jam" without extensive boiling off of the liquid of the ingoing fruit content. These products would have to be pasteurized but contain no pre servatives and must be eaten, once opened, within three or four days or kept under refrigeration to prevent spoilage.
4. After a general discussion the Working Group decided first to consider "Traditional Jam" and afterwards to consider "Modern Jam" under which the Swiss proposal fell. It was agreed that a two-tier system would be the best solution for Codex purposes. Bearing in mind that a sufficient distinction must be made to enable the consumer to differentiate between the two levels, the Working Group agreed that the minimum fruit content for the top tier should be 45% and for the bottom tier 33%.

Soluble Solids

5. As regards the level of total soluble solids, several delegations stated that in some national legislations the levels varied from 61% to 68%. The Working Group felt that in order to ensure that the product would not deteriorate under normal ambient conditions after opening, that a minimum level of 65% was necessary.

Preservatives

6. The Working Group was unable to reach any conclusion as regards the use of preservatives as some delegations felt that jams should be self-preserving whereas others considered that in certain climatic conditions (e.g. high humidity) and with certain types of containers, the use of preservatives was a technological

necessity. The Working Group recommended for the Committee's consideration two possible solutions:

- (a) that no preservatives should be allowed except in those countries which can demonstrate a technological need for their use, or
- (b) that preservatives should be allowed and those countries who were not prepared to admit their use could accept the standard with a specified deviation.

Labelling Requirements

- (7) After considerable discussion the Working Group was unable to reach any conclusion as to the names for the individual tiers, although a majority agreed that both could bear the name jam. The Working Group could not agree on the specific qualifying terms which would accompany the name jam for each type. Among the names which were considered were: Extra Jam; Jam and High Fruit Jam for the top tier, and Jam, Light Jam, Low Fruit Jam and Fruit Spread for the bottom tier.
- (8) The possibility of differentiating between the two tiers by means of a declaration of the minimum fruit content was also discussed. It was generally felt, however, that this alone was not sufficient without a clear distinction in the name. It was also felt that because of varying minimum fruit contents in each tier of jams made from different fruits consumers might be misled if they compared the amounts of fruit declared on such jams.

Modern Jams

- 9. The Working Group discussed whether or not Modern Jams should be included in Codex Standards. It was the general view that this would only be possible if the group of low sugar content products could be separately defined so as to distinguish them from Traditional Jam. Provided that this could be done, the Working Group considered that the low sugar content products could either be included in a separate Codex Standard or in the present draft standard for jams (fruit preserves) and jellies. However, the discussion of the compositional criteria which should apply to the group of low sugar content products showed that there was no agreement on either the minimum fruit or sugar contents which would apply, or on the use of artificial preservatives, and, therefore, these products could not be included in the present draft standard. Moreover, in view of the wide range of these products, all with a reduced sugar content, and the lack of evidence of any significant international trade to justify the elaboration of a standard for these products at this stage, it was generally considered that the Codex work priorities criteria were not fulfilled, and, therefore, the Working Group agreed that they could not recommend the elaboration of a standard for these products at this time. The delegation of Switzerland maintained, however, that their product was not basically a low sugar content product but primarily a high fruit content product and that, therefore, the inclusion of the product in the draft standard was a logical extension of the two tier system.

It was further decided, in order to show that these products were not covered in the present draft standard, to expand the scope section to exclude "fruit spreads" with a low sugar content, which do not comply with the minimum requirements of this standard and which in some countries are commonly described as "jam".

Food Additives

10. The Working Group considered ALINORM 74/12, paragraph 32-40 and Appendix II.

Acidifying Agents and pH Regulating Agents

The Working Group agreed with the draft proposed by the Food Additives Committee (ALINORM 74/12, Appendix II, item. 1).

Pectin

The Working Group agreed that non-amidated pectin was normally used in the manufacture of jam and that the proposal of the Food Additives Committee not to require limitation was acceptable. However, with regard to the use of amidated pectin the Working Group was informed that its use was technologically necessary to improve the consistency of the products and the Working Group agreed to recommend a maximum level of use 0.5% by weight.

Colouring Matters

In the absence of any significant number of written comments available to the Working Group it was considered that no meaningful discussion of this item was possible at this stage and that it should be left to the Codex Committee on Processed Fruits and Vegetables to discuss.

Preservatives

The Working Group considered that no firm recommendation could be made at this stage pending discussion on the principle of whether the Committee considered that preservatives should be used or not.

Firming Agents

The Working Group considered that there was no inconsistency between the provision permitting the use of calcium bisulphite and the provision for a residual sulphur dioxide level of 100 ppm. When calcium bisulphite was used up to a level of 200 ppm. it was used both as a firming agent for the fruit and as a preserving agent. The level of 100 ppm. sulphur dioxide in the finished product would not be exceeded by the use of calcium bisulphite in the fruit. However, the Working Group considered that it should be made clear that Firming Agents were used on the fruit and not the end product.

Antioxidants

The Working Group considered that discussion on the use of erythorbic acid (ascorbic acid) should be left to the Committee to consider all points of view.

DRAFT GENERAL STANDARD FOR
JAMS (FRUIT PRESERVES) AND JELLIES

Returned to STEP 6

1. SCOPE

This standard covers general provisions as are applicable to a class of fruit spreads commonly known as jams and jellies. The distinguishing characteristics of this class of products is that a substantial amount of fruit ingredient is required in formulation and the end product has a relatively high soluble solids value. The terms "preserves" and "jam" are frequently used interchangeably. "Jellies" are differentiated from jams in that the fruit ingredient consists of the juice that has been extracted from whole fruits and clarified by filtration or other means. The proposed standard includes products prepared not only from single fruits but also those prepared from two or more fruits.

This standard does not cover products prepared with non-carbohydrate sweeteners and which are clearly intended or labelled as intended for diabetic or dietetic use or products with a low sugar content, which do not comply with the minimum requirement of this standard and which in some countries are commonly described as "jam"; nor does this standard apply to those products prepared from citrus fruit, commonly referred to as marmalade, which products are covered by the "Codex Standard for Citrus Marmalade". Likewise, this standard does not cover products clearly intended and marked as for manufacturing use.

2. DESCRIPTION

2.1 Product definitions

2.1.1 Jams" or "Preserves" or "Conserves" is the product:

- (a) that is prepared from a suitable fruit ingredient (as defined in 2.2.2.1) which may be whole or pieces of fruit, fruit pulp, or fruit puree; and additionally with or without fruit juice or concentrated fruit juice as optional ingredient (s); and
- (b) with which prepared fruit ingredient is mixed a carbohydrate sweetener, with or without water, and may contain added pectin, edible acids, and minor amounts of other approved ingredients and additives; and
- (c) in which the prepared mixture is processed to a suitable consistency.

The product shall be filled into clean containers in a manner which shall prevent contamination and microbiological spoilage.

2.1.2 "Jelly" is the product:

- (a) that is prepared from a suitable fruit ingredient (as defined in 2.2.2.2) that is practically free from suspended fruit particles; and
- (b) with which prepared fruit ingredient is mixed a carbohydrate sweetener, may be adjusted with water, may contain added pectins and edible acids

and may include minor amounts of other approved ingredients and additives; and

(c) in which the prepared mixture is processed to a semi- solid consistency.

The product shall be filled into clean containers in a manner which shall prevent contamination and microbiological spoilage.

2.2 Other definitions

2.2.1 "Fruit" means all of the recognized fruits and those vegetables recognized as suitable in making jams, including but not limited to chestnuts, ginger, melon, rhubarb, tomato.

2.2.2 "Fruit ingredient" means:

2.2.2.1 In the case of jams, preserves, or conserves - -

(a) prepared from fruit which is fresh, frozen, canned, dried, concentrated, or otherwise processed or preserved;

(b) prepared from substantially sound, wholesome, clean fruit of suitable ripeness, not deprived of any of its main constituents, except that it is trimmed, sorted, and other wise treated to remove objectionable bruises, stems, top pings, tailings, cores, pits (stones), and may or may not be peeled. In the case of ginger, rhubarb, and melon it means respectively the drained edible and cleaned root of ginger (zingbier officinale) preserved in syrup, trimmed rhubarb stems, and melons with seeds, stem, and rind removed;

(c) the prepared fruit shall contain all natural soluble solids (extractives) except those lost during preparation under good manufacturing practice.

2.2.2.2 In the case of jelly --

(a) the juice or aqueous extract obtained from fruit which is fresh, frozen, canned, concentrated, or otherwise processed or preserved;

(b) prepared from such fruit which is clean, substantially sound, and wholesome and which is trimmed, sorted, or otherwise treated to remove objectionable material;

(c) such juice is further prepared by removal of all, or practically all, of the insoluble solids and may be con centrated by the removal of water.

2.2.3 "Fruit Pulp" means the edible portions of the fruit, mashed, or cut into pieces, but not reduced to a puree.

2.2.4 "Fruit Puree" means fruit ingredient finely divided by sieving, screening, or other mechanical means.

2.2.5 "Soluble Solids" means percent by weight of soluble solids as determined by the Refractometric method corrected to 20° C using the International Sucrose Scale but making no correction for insoluble solids or acids.

3. ESSENTIAL COMPOSITION AND QUALITY CRITERIA

3.1 Composition

3.1.1 Basic ingredients

- 1) Fruit ingredient as defined in 2.2.2 .
- 2) One or more of the carbohydrate sweetener (s) or sugars defined by the Codex Committee for Sugars, including sucrose, dextrose, invert sugar, invert sugar syrup, fructose, glucose syrup, dried glucose syrup.

3.1.2 Optional ingredients

- 1) Citrus juice.
- 2) Herbs, Spices, and Vinegar.
- 3) Essential oils.
- 4) Spirituous liquors.
- 5) Butter, margarine, other edible vegetable or animal oils (used as anti-foaming agents).
- 6) Honey.
- 7) Fruit juice or fruit juice concentrates in the case of jams. These may constitute a part of the required fruit content only in the case of grape juice and grape juice concentrate used in grape jam.

3.2 Formulation

3.2.1 Fruit content

3.2.1.1 Top Tier

The product shall be manufactured from not less than 45 parts, by weight, of original fruit ingredient, exclusive of any added sugar or other optional ingredients used in the preparation of the fruit ingredient, for each 100 parts, by weight, of finished product except for the following:

quince, blackcurrant, rosehip	35 parts
cashew apple	23 parts
passionfruit	8 parts
ginger	30 parts

When concentrated or diluted fruit ingredient is used, the formulation is based upon the equivalent of single strength fruits as determined by the relationship between the soluble solids of the concentrate and the soluble solids of the natural (single-strength) fruit.

3.2.1.2 Bottom Tier

The product shall be manufactured from not less than 33 parts, by weight, of original fruit ingredient, exclusive of any added sugar or other optional ingredients used in the preparation of the fruit ingredient, for each 100 parts, by weight, of finished product except for the following:

blackcurrant, quince, rosehip	25 parts
cashew apple	16 parts
passionfruit	6 parts

ginger

20 parts

When concentrated or diluted fruit ingredient is used, the formulation is based upon the equivalent of single strength fruits as determined by the relationship between the soluble solids of the concentrate and the soluble solids of the natural (single-strength) fruit.

3.2.2 Mixtures of fruits

3.2.2.1 Two fruits

When a jam or jelly contains a mixture of two fruits, the first-named fruit shall contribute not less than 50 percent, nor more than 75 percent, of the total fruit content except when melon, passionfruit, lemon, papaya, or ginger is one of the two fruits. When melon or papaya is a constituent it may be present up to a level of 95 percent and where pineapple, passionfruit, lemon, and ginger are present they shall be present at a level of not less than 5 percent with the major ingredient being permitted at a level greater than 75 percent.

3.2.2.2 Three fruits

When a jam or jelly contains a mixture of three fruits, the first-named fruit shall contribute not less than 33-1/3 percent, nor more than 75 percent, of the total fruit content.

3.2.2.3 Four or more fruits

When a jam or jelly contains a mixture of four or more fruits, the first-named fruit shall contribute not less than 25 percent nor more than 75 percent, of the total fruit content.

3.3 Soluble solids (finished product)

The soluble solids value of the finished product shall not be less than 65 percent.

3.4 Quality Criteria

3.4.1 General Requirements

The end product shall be viscous or semi-solid, have a colour and flavour normal for the type or kind of fruit ingredient taking into consideration any flavour imparted by optional ingredients, and shall be reasonably free from defective materials normally associated with the fruits. In the case of jellies, the product shall be at least reasonably clear or transparent and shall contain no apparent defects.

Seeds, in the case of berries and passionfruit, are a natural fruit component and are not considered defects unless the product is presented as "Seedless".

3.4.2 Defects and tolerances - - Jams (Preserves)

Based on a sample unit of 500 grams the product shall have not more than the following:

Tolerance

(a) Harmless Extraneous Plant Material - - - - -2 pieces

- - - -

(consisting of plant material common to the specific fruit and includes leaves, full caps, stems over 10 mm in length and sepal bracts aggregating an area of 5 mm² or larger)

- (b) Pit (Stone) - - - - - 1 piece
(whole pit or stone in fruits such as cherries that are normally pitted; or a piece of pit of approximately one-half pit)
- (c) Pit Fragments - - - - - 2 pieces
(a piece of pit less than the equivalent of one-half pit and which weighs at least 5 milligrams)
- (d) Damaged - - - - - 5 pieces
(a piece of fruit that is blemished, discoloured, or bruised by pathological or other means to the extent that it is materially affected)
- (e) Mineral Impurities
Strawberry Jam 0.04% by weight
Other 0.01% by weight

3.4.3 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in subsection 3.4.1 and 3.4.2 shall be considered a "defective".

3.4.4 Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in subsection 3.4.3 when the number of "defectives", as defined in subsection 3.4.3, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL 6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

4. FOOD ADDITIVES

The following provisions in respect of food additives and their specifications as contained in section ... of the Codex Alimentarius have been temporarily endorsed or are subject to endorsement by the Codex Committee on Food Additives as indicated:

4.1 <u>Acidifying and pH Regulating Agents</u>	<u>Maximum Level</u>
1) Citric acid) In sufficient)	Endorsed
2) Malic acid) amount to)	
3) Lactic acid) maintain the pH))
4) L-Tartaric acid) at a level of 2.8 -)	
	3.5
5) Fumaric acid)))
6) Sodium, potassium and calcium) L-Tartaric acid)	
salts of any of the acids listed in 1)) and fumaric acid)	Endorsed
through 5)) and their salts)	
7) Sodium and potassium carbonates) expressed as the))
8) Sodium and Potassium) acid, 3000 mg/kg)	
bicarbonates	

(a) Flavoxanthein	(d) riboxanthein	combination) Endorsement postponed
(b) Lutein	(e) violoxanthein	
(c) kryptoxanthein	(f) rhodoxanthein	
	(g) canthaxanthein	
Beet red or betanin		
Anthocyanins		

4.5 Preservatives

Sodium Benzoate	)	1000 mg/kg (singly or in combination)
Sorbic Acid or Potassium Salt	)	(Endorsement postponed)
Esters of parahydroxy benzoic acid)	
Sulphur Dioxide (as a carryover from raw material) - - - - -		100 mg/kg-Based on the end product (Endorsement postponed)

4.6 Flavours

Natural fruit essences of the named fruit (s) in the product	Limited by GMP (Endorsed)
Natural Mint Flavour	
Natural Cinnamon Flavour	

4.7 Firming Agents (For use only on the fruit)

1) Calcium bisulphite	) 200 mg/kg, expressed as Ca, singly or in combination	) Endorsement postponed
2) Calcium carbonate	)	) Endorsed
3) Calcium chloride))
4) Calcium lactate))
5) Calcium gluconate))

4.8 Antioxidant

L-ascorbic acid - - - - -	500 mg/kg	Endorsement postponed
---------------------------	-----------	-----------------------

5. HYGIENE

5.1 It is recommended that the product covered by the provisions of this standard be prepared in accordance with the International Code of Hygienic Practice for Canned Fruit and Vegetable Products (Ref. No. CAC/RCP 2-1969).

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

5.3 When tested by appropriate methods of sampling and examination, the product:

- (a) shall be free from microorganisms capable of development under normal conditions of storage; and
- (b) shall not contain any substances originating from micro- organisms in amounts which may represent a hazard to health.

6. WEIGHTS AND MEASURES

6.1 Fill of container

The container shall be well filled with 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.

6.1.1 Classification of "defective"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 6.1 shall be considered a "defective".

6.1.2 Acceptance

A lot will be considered as meeting the requirement of 6.1 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

7. LABELLING

In addition to Sections 1, 2, 4, and 6 of the Recommended International General Standard for the Labelling of Prepackaged Foods (Ref. No. CAC/RS 1-1969), the following specific provisions apply:

7.1 The name of the food

7.1.1 The name of the product shall be "Jam", "Preserves", "Conserves", or "Jelly", as appropriate.

7.1.2 The name of the product shall be preceded or followed by the name of the fruit, or fruits, used in order of proportion by weight.

7.1.3 The name of the product may include the name of the variety of fruit (e.g., Victoria Plum Jam) or type descriptions (e.g., Yellow Plum Jam).

7.1.4 The name of the product or fruit may include an adjective description of character (e.g., Seedless Blackberry Jam).

7.1.5 Jam made from ginger, or pineapple, or figs, with or without the addition of citrus fruit, may be designated "Ginger Marmalade", "Pineapple Marmalade", or "Fig Marmalade" if such product is customarily so described in the country in which it is sold.

7.1.6 The addition of artificial colour shall be declared in conjunction with the name of the product (e.g., X with colour added).

7.2 List of ingredients

7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with sub-section 3.2 (c) of the General Standard for the Labelling of Prepackaged Foods, CAC/RS 1-1969.

7.2.2 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients in the following manner:

"L-Ascorbic acid added as an anti-oxidant".

7.3 Net contents

The net contents shall be declared by weight in either the metric ("Systeme International" units) or avoirdupois or both systems of measurement as required by the country in which the product is sold.

7.4 Name and address

The name and address of the manufacturer, packer, distributor, importer, exporter, or vendor of the product shall be declared.

7.5 Country of origin

(a) The country of origin of the product shall be declared if its omission would mislead or deceive the consumer.

(b) When the product undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling.

8. METHODS OF SAMPLING, ANALYSIS AND EXAMINATION

The methods of analysis and sampling described or referred to are international referee methods and have been endorsed by the Codex Committee on Methods of Analysis and Sampling. (Except 8.5 which is yet to be endorsed).

8.1 Sampling

Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

8.2 Test Procedures

8.2.1 Soluble Solids

Soluble solids shall be determined by the Refractometric method, disregarding any adjustment for water insoluble solids and invert sugars, in accordance with the AOAC Method.

(Reference: Official Methods of Analysis of the Association of Official Analytical Chemists, 11th Edition, 22.019 and 31.011).

8.3 Determination of calcium in jams

FAO/WHO Codex Alimentarius CAC/RM 38-1970 also shown in Methods of AOAC-1970; 32.014 through 32.016.

8.4 Method for Determination of Water Capacity of Containers

8.4.1 Metal Containers

8.4.1.1 Procedure

- 1) Select a container which is undamaged in all respects.
- 2) Wash, dry, and weigh the empty container after cutting out the lid without removing or altering the height of the double seam.
- 3) Fill the container with distilled water at 20° C to 4.76 mm vertical distance below the top level of the container, and weigh the container thus filled.
- 4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

8.4.2 Glass containers

8.4.2.1 Procedure

- 1) Select a container which is undamaged in all respects.
- 2) Wash, dry, and weigh the empty container.
- 3) Fill the container with distilled water at 20° C to the level of the top thereof, and weigh the container thus filled.
- 4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

8.5 Determination of Mineral Impurities

8.5.1 Apparatus

- (1) Blender or mascerator (Atomix, Turmix, Waring, or equivalent).
- (2) Beakers - 2,000 ml capacity.
- (3) Funnels.
- (4) Filter paper, Whatman No. 1 or equivalent.
- (5) Porcelain or platinum crucibles.
- (6) Muffle furnace (600° C).
- (7) Dessicator with active dessicant.
- (8) Analytical balance.

8.5.2 Reagents

- (1) NaCl solution 15%
- (2) HC1

8.5.3 Preparation of Test Sample

(a) Containers of 500 g or less

Use the entire contents. Determine the weight of contents by subtracting the weight of the empty container from the weight of full container. For this purpose:

Weigh the container with the contents. Transfer the contents to a 2 L. beaker, taking care to include any sand or particles by rinsing with ca 500 ml of hot water. Weigh the emptied dried container. Determine the weight of contents by subtracting the weight of the empty container from the weight of full container. Use the entire contents for the analytical sample.

(b) Containers larger than 500 g

Use the sub of ca 500 g for the analytical sample. For this purpose:

Empty the container onto a tray. Divide into parts along the vertical axis. Remove ca 500 gram sub for the analytical sample taking care to include all layers of the contents. Transfer the sample to a 2 L. previously weighed beaker. Weigh. Determine the weight of the sample from the difference of weights.

8.5.4 Procedure

- (1) Add ca 500 ml of hot water to the sample in the 2 l. beaker and homogenize the contents thoroughly.
- (2) Nearly fill the beaker with a hot water and mix contents by swirling, using a stirring rod if needed.
- (3) Let stand about 10 minutes and decant supernatant and water into a second 2 l. beaker.
- (4) Refill the first beaker with water, repeat the mixing and swirling operation and again let set 10 minutes.
- (5) Fill the second beaker with water, mix and swirl, and let stand 10 minutes.
- (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.
- (7) Repeat the sequence carefully decanting supernatant from beaker No. 3 into sink, until all fruit tissue is removed from the sample.
- (8) Finally collect the residue from all the beakers in beaker No. 3.
- (9) Remove any seeds or fruit tissue that settles out by treating the residue in beaker No. 3 with hot 15% NaCl solution.
- (10) Remove NaCl by washing with hot water. Removal can be verified by testing the washings with AgNO₃.
- (11) Finally transfer residue remaining in Step 10 to funnel fitted with ashless filter paper. Use small portion of water to assure transfer of all residue. Discard filtrate.
- (12) Transfer filter paper to a weighed crucible. Dry in air oven or over bunsen burner. Ignite in muffle furnace for about 1 hour at 600° C.
- (13) Cool, add 5 ml HCl and heat to boiling. Again cool, add 10 ml H₂O and heat to boiling.
- (14) Filter, and wash free of acid.
- (15) Ignite the filter by an initial drying and incineration in muffle furnace at 600° C.
- (16) Cool in dessicator, and weigh.
- (17) 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.
- (18) Express the residue or mineral impurities on the basis of ___ mg per kilogram.

If the test sample is 500 grams, multiply the value obtained in Step 17 by two (2).

If the test sample is less than 500 grains, use the following formula:

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

in which

X = mineral impurities

W = Weight of test sample (grams)

R = Residue remaining after incineration (milligrams)

DRAFT GENERAL STANDARD
FOR
CITRUS MARMALADE
Retained at Step 7

1. SCOPE

This standard covers general and specific provisions for the product prepared from citrus fruit and commonly referred to as "Marmalade".

Marmalades made from ginger, pineapple, or figs (with or without the addition of citrus fruit) which are customarily described as marmalades of such fruit (s) but which conform to the requirements for jams, are covered by the Codex General Standard for Jams (Fruit Preserves) and Jellies.

It does not apply to products prepared from fruits other than citrus nor does it apply to those products prepared from non-carbohydrate sweeteners and designated as "diabetic" or "dietetic" or products with a low sugar content, which do not comply with the minimum requirement of this standard and which in some countries are commonly described as Marmalade. Nor does it apply to the product intended or clearly marked for manufacturing use only.

2. DESCRIPTION

2.1 Product definitions

- 2.1.1 "Marmalade" is the product obtained by processing prepared citrus fruit (as defined in 2.2.1) in the form of whole fruit, fruit pulp, or fruit puree, with carbohydrate sweetener with or without citrus juice, the extraction of peel, the removal of some or all of the peel, the addition of water, pectin, edible acids and other minor ingredients, in which the mixture is processed to a suitable consistency.

The product shall be filled into clean containers in a manner which shall prevent contamination and microbiological spoilage.

- 2.1.2 "Jelly Marmalade" is the product as described in sub-section 2.1.1 from which all of the insoluble solids, or all of the insoluble solids except for a small proportion of thinly cut peel, have been removed.

2.2 Other definitions

- 2.2.1 "Prepared citrus fruit" or "prepared citrus fruit ingredient" means substantially sound, clean citrus fruit, including pulps, concentrated juices, extractives, and preserved peels from which stems, calyces, and seeds have been removed. The fruit and juice shall contain all natural soluble solids (extractives) except for those lost during preparation under good manufacturing practices. The citrus fruit ingredient may be prepared from fruit which is fresh, processed, or preserved other than by drying.

3. ESSENTIAL COMPOSITION AND QUALITY CRITERIA

3.1 Composition

3.1.1 Basic ingredients

- 1) Prepared citrus fruit ingredient
- 2) One or more of the carbohydrate sweetener (s) or sugars defined by the Codex Committee for Sugars, including sucrose, dextrose, invert sugar, invert sugar syrup, fructose, fructose syrup, glucose syrup, dried glucose syrup.

3.1.2 Optional ingredients

- 1) Citrus juice.
- 2) Essential oils.
- 3) Spirituous liquors.
- 4) Butter, margarine, other edible vegetable or animal oils (as anti-foaming agents).
- 5) Honey.

3.2 Formulation

The product shall contain not less than 20 parts, by weight, of prepared citrus fruit for each 100 parts, by weight, of finished marmalade. Peel in excess of amounts normally associated with the fruits is not considered a part of the fruit ingredient for purposes of compliance with minimum fruit content.

When concentrated or diluted citrus fruit ingredient is used, the formulation is based upon the equivalent of single strength fruits as determined by the relationship between the soluble solids of the concentrate and soluble solids of the natural (single strength) fruit.

3.3 Soluble Solids (Finished Product)

The soluble solids value of the finished product shall not be less than 65 percent.

3.4 Quality Criteria

3.4.1 General

The end product shall be viscous or semi-solid, have a colour and flavour normal for the type of citrus fruit used taking into consideration flavour imparted by optional ingredients. The product shall be practically free from extraneous plant material, seeds, or seed particles, and shall be reasonably free from other defects normally associated with the fruit.

3.4.2 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in sub-section 3.4.1 shall be considered a "defective".

3.4.3 Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in sub-section 3.4.1 when the number of "defectives", as defined in sub-section 3.4.2, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, CAC/ RM 42-1969.

4. FOOD ADDITIVES

The following provisions in respect of food additives and their specifications as contained in section ... of the Codex Alimentarius are subject to endorsement or have been endorsed or temporarily endorsed or acted upon by the Codex Committee on Food Additives, as indicated.

- 4.1 Acidifying and pH Regulating Agents Maximum Level
- | | | | | |
|--|---|--|---|----------|
| 1) Citric acid |) | In sufficient amount |) | Endorsed |
| 2) Malic acid |) | to maintain the pH at |) | |
| 3) Lactic acid |) | a level of 2.8 - 3.5 |) | |
| 4) L-Tartaric acid |) | |) | |
| 5) Fumaric acid |) | |) | |
| 6) Sodium, potassium and calcium salts of any of the acids listed in 1) through 5) |) | L-Tartaric acid and fumaric acid and their salts expressed as the acid, 3000 |) | |
| 7) Sodium and potassium carbonates |) | mg/kg |) | |
| 8) Sodium and potassium bicarbonates |) | |) | |
- 4.2 Anti-Foaming Agents
- | | | |
|---|---|--|
| Mono and Diglycerides of fatty acids of edible oils |) | Not more than is necessary to inhibit foaming (Endorsed) |
| Dimethylpolysiloxane - - - - - | | 10 mg/kg (Temporarily endorsed) |
- 4.3 Thickening Agent
- | | | |
|-----------------------|------------------|------------------|
| Pectin (non-amidated) | - Limited by GMP | - Endorsed |
| Pectin (amidated) | - 0.5% by weight | - To be endorsed |
- 4.4 Colouring Matters
- | | |
|---------------------------------------|--|
| Caramel - - - - - | Limited by Good Manufacturing Practice (Endorsed) |
| Caramel (Made by the Ammonia Process) | 1,500 mg/kg (To be endorsed) |
| Sunset Yellow FCF - - - - - | 200 mg/kg (Endorsement postponed) |
| <u>In Lime Marmalade only</u> | |
| Tartrazine | } 100 mg/kg-Singly or in combination (Endorsement postponed) |
| Wool Green BS (Green 'S') | |
- 4.5 Preservatives
- | | |
|--|---|
| Sorbic Acid and Potassium Sorbate | 250 mg/kg (singly or in combination) (Endorsed) |
| Sulphur Dioxide - - - - - (as a carryover from raw material) | 100 mg/kg (Based on the end product) (Endorsed) |
- 4.6 Flavours
- Natural citrus fruit essences ----- Limited by GMP

(Endorsed)

4.7 Antioxidants

L-ascorbic acid 500 mg/kg

(Endorsed)

5. HYGIENE

5.1 It is recommended that the product covered by the provisions of this standard be prepared in accordance with the International Code of Hygienic Practice for Canned Fruit and Vegetable Products recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 2-1969).

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

5.3 When tested by appropriate methods of sampling and examination, the product:

- (a) shall be free from microorganisms capable of development under normal conditions of storage; and
- (b) shall not contain any substances originating from micro-organisms in amounts which may represent a hazard to health.

5. WEIGHTS AND MEASURES

6.1 Fill of container

The container shall be well filled with 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.

6.1.1 Classification of "defective"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 6.1 shall be considered a "defective".

6.1.2 Acceptance

A lot will be considered as meeting the requirements of 6.1 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plan (AQL 6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

7. LABELLING

In addition to Sections 1, 2, 4 and 6 of the Recommended International General Standards for the Labelling of Pre-packaged Foods (Ref. No. CAC/RS 1-1969), the following specific provisions apply:

7.1 The name of the food

7.1.1 The name of the product shall be "Marmalade".

7.1.2 Where the product is not made exclusively from oranges, the designation shall include the citrus fruits from which the product was prepared, save however that this shall not be necessary where the proportion of citrus fruit other than orange does not exceed 10% by weight of the fruit content.

- 7.1.3 Except as provided in 7.1.2, where the product is prepared from two or more citrus fruits, the designation shall include each citrus fruit present, with the fruits listed in the order of predominance.
- 7.1.4 The name of the product may contain the name of the variety of citrus fruit (e.g. "Valencia Orange Marmalade").
- 7.1.5 The product may be designated according to the amount and type of peel present, depending upon the practice in the country in which it is sold.

7.2 List of ingredients

A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with subsection 3.2 (c) of the General Standard for the Labelling of Prepackaged Foods, CAC/RS 1-1969.

- 7.2.2 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients in the following manner:

"Ascorbic acid added as an anti-oxidant".

7.3 Net contents

The net contents shall be declared by weight in either the metric ("Systeme International" units) or avoirdupois or both systems of measurement as required by the country in which the product is sold.

7.4 Name and Address

The name and address of the manufacturer, packer, distributor, importer, exporter, or vendor of the product shall be declared.

7.5 Country of origin

- (a) The country of origin of the product shall be declared if its omission would mislead or deceive the consumer.
- (b) When the product undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling.

8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to in 8.1, 8.2, and 8.4 are international referee methods and are subject to endorsement by the Codex Committee on Methods of Analysis and Sampling.

8.1 Sampling

Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

8.2 Test procedures

8.2.1 Soluble solids

Soluble solids shall be determined by the Refractometric method, disregarding any adjustment for water insoluble solids and invert sugars, in accordance with AOAC Method.

(Reference: Official Methods of Analysis of the Association of Official Analytical Chemists, 11th Edition, 22.019 and 31.011).

8.3 Determination of calcium in jams

FAO/WHO Codex Alimentarius CAC/RM 38-1970 also shown in Methods of AOAC-1970 - 32.014 through 32.016.

8.4 Method for determination of water capacity of containers

8.4.1 Metal containers

8.4.1.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container after cutting out the lid without removing or altering the height of the double seam.
- (3) Fill the container with distilled water at 20° C to 4.76 mm vertical distance below the top level of the container, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

8.4.2 Glass containers

8.4.2.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container.
- (3) Fill the container with distilled water at 20° C to the level of the top thereof, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

PROPOSED DRAFT STANDARD
FOR
CANNED CARROTS
Returned to STEP 3

1. DESCRIPTION

1.1 Product definition

Canned carrots is the product (a) prepared from clean, sound, roots of carrot varieties (cultivars) conforming with the characteristics of the species Daucus carota L. from which the leaves, green tops, and peel have been removed; (b) packed with water or other suitable liquid medium, sugars, seasonings, and other ingredients, appropriate to the product; and (c) processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

1.2 Varietal types

Any suitable variety (cultivar) of carrot may be used.

1.3 Styles

- (a) Whole: consist of carrots which, after processing, retain their approximate original conformation. The largest diameter of carrots, measured at right angles to the longitudinal axis shall not exceed 50 mm and the variation between such largest and smallest diameter carrot shall not exceed 3:1.
- (b) Baby Whole: where whole carrots have a diameter of not more than 20 mm and are not longer than 100 mm they may be described as baby whole.
- (c) Halved: carrots bisected by cutting through the longitudinal axis so that two approximately equal halves result
- (d) Quartered: carrots cut into four approximately equal sections by two cuts at right angles through the longitudinal axis.
- (e) Sliced Lengthwise: consist of carrots which have been sliced longitudinally into four or more pieces of approximately equal size. Not less than 20 mm long and not less than 5 mm in width measured at the maximum width.
- (f) Sliced or Ring Cut: consist of carrots which have been cut at right angles to the longitudinal axis, into rings having a maximum thickness of 10 mm and a maximum diameter of 50 mm.
- (g) Diced: consist of carrots cut into approximate cubes with edges not exceeding 12.5 mm.
- (h) Julienne, French Style, or Shoestring: consist of carrots cut longitudinally into strips. The cross section shall not exceed 5 mm (measured at the longest side of the cross section).

- (i) Double Diced: sections of carrots cut into uniformly shaped units having a cross section that is square and which the longest dimension is approximately twice that of the shortest dimension - the shortest dimension not exceeding 12.5 mm.
- (j) Chunks or Pieces: whole carrots cut crosswise into sections having a thickness greater than 10 mm or whole carrots which are halved and then cut crosswise into sections or sections of carrots that may be irregular in shape and size and which are larger than ring cut or double diced.
- (k) Cut: sections of whole carrots cut into pieces not more than 40 mm long and a diameter not more than 23 mm.

1.3.1 Allowance for styles

A maximum 25% of the net drained weight may deviate a maximum 5 mm from the prescribed length, and a maximum 10% of the net drained weight may deviate a maximum 10 mm from the prescribed length on the understanding that these tolerances apply to 1.3(k).

For all other styles mentioned in subparagraph 1.3, 10% by count of the units may exceed the largest dimension.

1.4 Types of Pack

- (a) "Liquid Pack" when a liquid medium is used; or
- (b) "Vacuum Pack" or "Vacuum Packed" if the liquid packing medium does not exceed 20 percent of the total net weight of the product and the container is closed under conditions creating a high vacuum in the container.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Basic ingredients

Carrots and liquid packing medium appropriate to the product.

2.1.1 Optional ingredients

- (a) Salt.
- (b) Sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup, fructose, and fructose syrup.
- (c) Aromatic herbs and spices; stock or juice of vegetables . and aromatic herbs (lettuce, onions, etc.); garnishes
- (d) composed of one or more vegetables (lettuce, onions; pieces of green or red peppers, or mixtures of both) up to a maximum of 15% of the total drained vegetable ingredient.
- (e) Butter, margarine or other edible animal or vegetable fats or oils. If butter or margarine is added, such butter or margarine must amount to not less than 3% of the final product (total contents).
- (f) Starches - - natural (native), physically or enzymatically modified - - only when butter or other edible animal or vegetable fats or oils are ingredients.

2.2 Quality Criteria

2.2.1 Colour

The colour of the product shall be normal for the colour type. The liquid packing medium shall be practically clear (except as it may be affected by other ingredients) and only a very small amount of sediment or parts of carrots may occur.

2.2.2 Flavour

Canned carrots shall have a normal flavour and odour free from flavours or odours foreign to the product.

2.2.3 Texture

The carrot units shall be reasonably free from units that are excessively fibrous or tough.

2.2.4 Defects and Allowances

Canned carrots shall be reasonably free from defects and shall not exceed the limits set herein for the respective defects.

2.2.4.1 Extraneous Vegetable Material

(Consisting of any leaf or plant material from the carrot plant, or other harmless plant material not purposely added as an ingredient.)

Allowance - 1 piece per 1000 grams based on total contents of all the containers in the sample (i.e. Sample Average).

2.2.4.2 Other Defects - defects other than EVM shall comply with the limitations as set forth in Table I and Table II for the respective styles.

The sample unit size for "Other Defects" is as follows:

- 1) Whole and Baby Whole Styles - 40 units
- 2) Halves, Quartered, Sliced Lengthwise, Chunks, Cuts - 80 units
- 3) Diced, Double Diced, Julienne, Sliced or Ring Cut Styles - 400 grams.

TABLE I

Whole, Baby Whole, Halved, Quartered, Sliced Lengthwise, Chunks, Cuts

DEFECT	CATEGORY		
	Minor	Major	Serious
a) Blemished - spotted or discoloured areas - - - - up to 30 mm ²	X		
- - - 30 mm ² up to 200 mm ²		X	
- - - 200 mm ² , or any very dark or black exceeding 30 mm ²			X
b) Mechanical - damaged by crushing Or fraying during canning -			
- - - slightly frayed	X		
- - - crushed or broken or showing cracks		X	
c) Mis-shapen - abnormal distortion or growth cracks			
- - - slightly affected	X		
- - - materially affected		X	

d) Unpeeled - unpeeled areas				
- - - slightly affected		X		
- - - materially affected			X	
e) Fibrous - units that are tough or woody due to fibre development -				
- - - slightly affected		X		
- - - materially affected			X	
- - - seriously affected (woody)				X
f) Green - units with green tops, except "Paris Type"				
- - - slightly affected		X		
- - - materially affected			X	

Allowances for Defects (Maximum Number Permitted)

Halved, Quartered, Sliced Lengthwise, Chunks, Cuts

Sample of 80 Units - Total of all defects 13 per sample unit, provided that not more than 10 are major and serious combined, and further provided that not more than 1 is serious.

Whole and Baby Whole

Sample of 40 Units - Total of all defects 13 per sample unit, provided that not more than 5 are major and serious combined, and further provided not more than 1 is serious.

TABLE II

(Diced, Double-Diced, Julienne, and Sliced Ring Cut Style)

Definition of Defects

- (a) Disintegrated unit is a unit deformed or disintegrated to the extent that the original shape is destroyed or not recognizable.
- (b) Blemished Unit is a unit with dark or green spots, or pieces of peel, to the extent that the appearance or eating quality is seriously affected.
- (c) Fibrous Unit is a unit with a fibrous texture to the extent that the eating quality is seriously affected.

Allowance for Defects

Total of all defects - 50 grams per 400 gram sample unit, provided that no single defect (a, b or c above) exceeds 25 grams per sample unit.

2.2.5 Classification of "defectives"

A sample unit that exceeds the allowance provisions applicable to Table I and II (2.2.4) or other quality criteria (2.2.1 -2.2.3) shall be considered a "defective".

2.2.6 Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in sub-section 2.2 when the number of "defectives", as defined in sub-section 2.2.5, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969, and does not exceed the allowance provisions for harmless extraneous material which is based on the sample average.

3. CONTAMINANTS

The following provision in respect of contaminants is subject to endorsement by the Codex Committee on Food Additives:

Tin, maximum level - - - - - 250 mg/kg, calculated as Sn.

4. FOOD ADDITIVES

		<u>Maximum Level</u>	
4.1.	Monosodium glutamate	500 mg/kg	) Endorsement) Postponed
4.2.	<u>Firming agents</u>		
	Calcium chloride	) total 350 mg/kg,	) Endorsed
	Calcium lactate	) calculated as Ca in)
	Calcium gluconate	) the final product)
4.3.	<u>Thickening agents</u>		
4.3.1	<u>Modified starches</u>		
	Acid-treated starches	) 10 g/kg, singly or in	) Endorsed
	Alkali-treated starches	) combination, to be used)
	Bleached starches	) only when butter or other)
	Distarch, phosphate ^{1/}	) edible animal or vegetable)
	Distarch phosphate, phosphated	) fats or oils are used as)
	Monostarch phosphate	) ingredients as in a "sauce)
	Starch acetate	) pack")
	Starch, hydroxypropyl))
	Distarch adipate, acetylated))
	Distarch glycerol, hydroxypropyl))
	Starch sodium succinate))
	Distarch phosphate, acetylated))
	Distarch glycerol, acetylated))
	Distarch glycerol))
	Oxidized starches	)	) Temporarily endorsed
	Distarch phosphate, hydroxypropyl)	)	) Endorsement postponed
4.3.2	<u>Vegetable gums</u>		
	Arabic gum	)	) Endorsed
	Carrageenan))
	Furcellaran))
	Guar gum))
	Gum tragacanth	)	) Endorsement
	Carob bean (Locust Bean) gum	)	) Postponed pending

	)		toxicological
	)		evaluation by
4.3.3	)	<u>Alginates</u>	the JECFA
	)	Ammonium alginate)
	)	Calcium alginate)
	)	Potassium alginate	) Endorsed
	)	Sodium alginate)
	)	Propylene glycol alginate)
4.3.4	)	Pectins (Amidated and Non-Amidated)	) Endorsed

^{1/} The sodium metaphosphate treated and phosphorus oxychloride treated starches have been combined under "distarch phosphate".

5. HYGIENE

- 5.1 It is recommended that the product covered by the provisions of this standard be prepared in accordance with the International Code of Hygienic Practice for Canned Fruit and Vegetable Products recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 2-1969).
- 5.2 To the extent possible in good manufacturing practice the product shall be free from objectionable matter.
- 5.3 When tested by appropriate methods of sampling and examination the product
- (a) shall be free from microorganisms capable of development under normal conditions of storage, and
 - (b) shall not contain any substances originating from micro-organisms in amounts which may represent a hazard to health.
- 5.4 The product shall have received a processing treatment sufficient to destroy all spores of Clostridium botulinum.

6. WEIGHTS AND MEASURES

6.1 Fill of container

6.1.1 Minimum fill

The container shall be well filled with carrots and, except for "vacuum pack" carrots, the product (including packing medium) 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.

6.1.1.1 Classification of "defectives"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 6.1.1 shall be considered a "defective".

6.1.1.2 Acceptance

A lot will be considered as meeting the requirement of 6.1.1 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

6.2.1 Minimum drained weight

6.2.1.1 The drained weight of the product except for sauce packs, shall be not less than:

<u>Style</u>	<u>Containers 850 ml or less</u>	<u>Containers More Than 850 ml</u>
Whole, Halved and Sliced lengthwise	55	60
Diced, Double Diced	60	65
Julienne	53	60
Quartered, Chunks, (Pieces), Sliced, (Ringcut)	58	60
Cut	62	65

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

7. LABELLING

In addition to Sections 1, 2, 4, and 6 of the Recommended International General Standard for Labelling Prepackaged Foods (Ref. No. CAC/RS 1-1969), the following specific provisions apply:

7.1 The name of the food

7.1.1 The name of the product shall be "Carrots"

7.1.2 The style, as appropriate, shall be declared as part of the name or in close proximity to the name: "Whole", "Sliced Lengthwise", "Finger Cut", "Ring Cut", "Diced", "Julienne", "French Style", "Shoestring", "Double Diced", "Chunks", "Pieces", "Sliced", "Cuts", "Halved", "Quartered".

7.1.3 The name of the product may include the variety or type of the carrots used.

7.1.4 A declaration of any special sauce and/or seasoning which characterizes the product, e.g., "With X" or "In X", when appropriate. If margarine is used the declaration shall be "In Margarine Sauce". If the declaration is "With (or "In") Butter Sauce", the fat used shall only be butter fat.

7.1.5 If canned carrots are vacuum packed this fact shall be declared on the label as "vacuum pack" or "vacuum packed".

7.2 List of ingredients

A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with sub-section 3.2 (c) of the General Standard for the Labelling of Pre-packaged Foods, except that water need not be declared,.

7.3 Net contents .

The net contents shall be declared by weight in either the metric ("Systeme International" units) or avoirdupois or both systems of measurement as required by the country in which the product is sold.

7.4 Name and address

The name and address of the manufacturer, packer, distributor, importer, exporter, or vendor of the product shall be declared.

7.5 Country of Origin

- (a) The country of origin of the product shall be declared if its omission would be mislead or deceive the consumer.
- (b) When the product undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purpose of labelling.

8. METHODS OF SAMPLING, ANALYSIS AND EXAMINATION

The methods of analysis and sampling described or referred to hereunder are international referee methods. The methods referred to in 8.1, 8.2, and 8.3 have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

8.1 Sampling

Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods, CAC/RM 42-1969.

8.2 Determination of Drained Weight

According to the FAO/WHO Codex Alimentarius (FAO/WHO Codex Alimentarius Methods of Analysis for Processed Fruits and Vegetables, CAC/RM 36-1-970, Determination of Drained Weight - Method I)

Results are expressed as % m/m calculated on the basis of the mass of distilled water at 20° C which the sealed container will hold when completely filled.

8.3 Method for Determination of Water Capacity of Containers

8.3.1 Metal containers

8.3.1.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container after cutting out the lid without removing or altering the height of of the double seam.
- (3) Fill the container with distilled water at 20° C to 4.76 mm vertical distance below the top level of the container, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

8.3.2 Glass containers

8.3.2.1 Procedure

- (1) Select a container which is undamaged in all respects.
- (2) Wash, dry, and weigh the empty container.
- (3) Fill the container with distilled water at 20° C to the level of the top thereof, and weigh the container thus filled.
- (4) Subtract the weight found in (2) from the weight found in (3). The difference shall be considered to be the weight of water required to fill the container.

OTHER JAM PRODUCTS NOT COVERED BY THE PRESENT
DRAFT STANDARD

A. SWITZERLAND

The delegation of Switzerland proposed that for Codex purposes a third tier, which contains more than 50% by weight fruit and not less than 50% total soluble solids in the end product should be elaborated.

Because of the high ingoing fruit content, it is not possible to reach the high soluble solids content of the so-called traditional jam without boiling off an excessive quantity of the ingoing fruit content. With the exception of the soluble solids figure in the end product all other requirements of the Draft General Standard for Jams (Fruit Preserves) and Jellies apply.

B. NETHERLANDS COMPOSITION DUTCH "HALVAJAM"

1. Fruit equal to or over 50%
2. Sugars equal to or below 30%
3. Preservatives up to 0.03%
i.e. sorbic acid up to 0.02%
SO₂ up to 0.005%
4. Thickening Agents up to 2%
(pectin, alginate, gelatine, etc.)
5. Acid
citric acid up to 0.8%
potassium citrate up to 0.35%
calcium phosphate up to 0.07%
6. Colours
in strawberry jam only permitted colours up to 0.05%

Boils down to

1. fruit 50%
2. sugars 30%
3. preservatives allowed
4. thickening agents 2%
5. acids:
citric acid up to 0.8%
calcium phosphate up to 0.07%
6. colours only in strawberry jam.

C. DENMARK

Danish suggestion for modern "jam"

The 2-tier system, including the fruit limits, is adopted as outlined in the draft for traditional jam.

The upper limit of soluble solids should be 60 or 65%

No lower limit of soluble solids

The name of the products should include the name jam. The top tier shall bear the additional word; Extra Preservatives should be allowed.

The products shall bear the declaration of the fruit content and the soluble solid content.