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ALINORM 72/20A

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
REPORT OF THE NINTH SESSION OF THE CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES
WASHINGTON, D.C., USA 12-16 JUNE 1972

Introduction.

1. The Ninth Session of the Codex Committee on Processed Fruits and Vegetables was held at the State Department building under the chairmanship of the United States, with Dr. Floyd F. Hedlund in the chair. The Committee learned, with deep regret, of the death of Mr. Fitzhugh L. Southerland, the former Chairman of the Committee, and observed a minute's silence in his memory. Representatives and observers from 26 countries and observers from 6 international organizations attended the session. The list of participants appears as Appendix I to this report. The participants were welcomed by the Chairman, Dr. Hedlund, and by Mr. George Grange, U.S. Codex Coordinator and a Vice Chairman of the Commission. Mr. Grange briefly reviewed the circumstances in which the Commission at its last session decided to refer back to the Committee for examination a number of standards which had been before it at Step 8. He also briefly reviewed the deliberations of the last session of the Executive Committee held in May 1972 concerning the concept of acceptance with minor deviations. The Committee expressed its appreciation at the fact that the U.S. authorities had been kind enough to provide simultaneous interpretation facilities at the session in Spanish as well as in English and in French.

Adoption of the Agenda.

2. The Committee adopted the Provisional Agenda.

Matters in Reports of Codex Meetings Held Since the Eighth Session of the Committee which Concerned the Work of the Committee.

3. The Committee took note of the contents of the relevant paragraphs in the Report of the Eighth Session of the Commission. As at previous sessions, the Committee agreed that it would be best to consider the remarks in the Reports of the Eighth Session of the Codex Committee on Food Hygiene, the Sixth and Seventh Sessions of the Codex Committee on Food Labelling, and the Seventh and Eighth Sessions of the Codex Committee on Food Additives relating to the standards which were before it for consideration, when it came to discuss the standards individually.

Reconsideration of Standards at Step 7.

4. The Committee reexamined the Standards for Canned Plums, Canned Raspberries, Canned Fruit Cocktail, Canned Mushrooms, and Canned Asparagus in the light of government comments received thereon, and in the manner prescribed by

WM/D0327

the Commission at its Eighth Session. The standards, as revised by the Committee, are contained in Appendices to this Report. The main points emerging from the Committee's deliberations are set out hereunder.

Standard for Canned Plums Reconsidered at Step 7.

Product Definition

5. The Committee noted the statement of the delegation of the Argentine, that in the Argentine the addition of seasonings or flavouring ingredients to the product was not permitted. The Committee decided, however, not to accept the proposal of the delegation of the Argentine, which was supported by the delegation of France, that the use of flavouring ingredients in this product be not permitted. The Committee drew attention to the fact that the use of flavouring ingredients was optional, that there was a substantial demand for the product packed with such ingredients, and that many of the previously adopted standards contained such a provision. The Committee also noted a further proposal of the delegation of the Argentine that the heat treatment be applied after the sealing of the product and not before. The Committee drew attention to the fact that a provision permitting heat treatment before or after the sealing of the product in a container had already been the subject of detailed discussion at previous sessions of the Committee and had met with the approval of the Commission. It was pointed out that modern technology enabled the product to be heat treated before being sealed in the container in a manner which prevented spoilage. The Committee, therefore, made no change in the text of the Product Definition. The delegation of the Netherlands proposed to subdivide the seven varietal types of plums mentioned in the standard into two categories according to the sugar/acid ratio. The delegation of France associated itself with this proposal.

Styles

6. The Committee took note of the proposal of the delegation of the Argentine as set out in its written comments and agreed that this subsection needed to be more clearly defined. The Committee agreed to amend the subsection as follows:

(a) Whole peeled with or without pits;

(b) Whole with peel with or without pits;

(c) Halves (cut into two approximately equal parts), peeled without pits; and

(d) Halves (cut into two approximately equal parts), with peel, without pits.

Packing Media

7. The Committee noted that, in their written comments, the delegations of Argentina, Belgium, Federal Republic of Germany, France, Morocco, Netherlands, Norway, and Yugoslavia were in favor of reducing the number of syrup strength categories to two categories, namely Light Syrup and Heavy Syrup. The delegation of Poland also indicated that it favored two syrup strength categories. The delegations of Australia, United Kingdom, and United States of America in their written comments favored the retention of four syrup strength categories. The delegation of Trinidad and Tobago also indicated that it favored the retention of four syrup strength categories. During the course of the discussions, it became evident that the bulk of the trade was in canned plums having a syrup strength ranging between 15° and 25° Brix or, in other words, in Light Syrup and Heavy Syrup. Taking this into account, as well as the established practice in a significant number of countries, which provided for two main syrup strength categories, namely Light Syrup (in the region of not less than 15° Brix) and Heavy Syrup (in the region of not less than 19° Brix), the Committee agreed that the general acceptability of the standard would be enhanced by providing for two basic syrup strengths. The Committee agreed, therefore, to provide for Light Syrup (not less than 15° Brix) and Heavy Syrup (not less than 19° Brix). At the same time, however, the Committee recognized the need for accommodating those countries which packed plums in packing media having a syrup strength of as low as 11° Brix, on the one hand, and higher than 25° Brix, on the other hand, as provided for originally in the standard. With this object in view, the Committee agreed to provide for the use of two additional and optional packing media, namely

(i) a packing medium of not less than 11° Brix but less than 15° Brix which could be designated as "water slightly sweetened" or "slightly sweetened water" or "extra light syrup", and

(ii) a packing medium of more than 25° Brix which could be designated "extra heavy syrup",

where such is not prohibited in the country of sale.

As regards the provision which permitted the use of the optional packing media when not prohibited in the country of sale, the delegation of Canada stated that it was not in favor of restrictive non-tariff trade barriers and that it regarded this provision as being such. The delegation of Canada further stated that as a trading nation it could not support what it regarded as barriers to trade. The Committee noted the Canadian comment.

8. The delegation of Poland considered that it would be preferable to express in this and the other standards under consideration the syrup strengths in terms of percentage of sucrose as determined by refractometer. It was pointed out, however, that it was clear from the methods of analysis endorsed for syrup measurements that the result would be expressed as percentage m/m of sucrose which is equivalent to degrees Brix.

9. Having agreed to provide for two basic syrup strengths, and for two additional packing media as described in the preceding paragraph and having decided after a full exchange of views not to alter the Brix figures, the Committee agreed that it would be desirable to revise the layout of the section on packing media to bring it into line with that which had been agreed upon at the Eighth Session of the Committee in the Standard for Canned Pears. The Committee agreed that the redraft should be such as to provide for packing media consisting of water, water and plum juice, plum juice, a combination of fruit juices including or not including plum juice, and water and a combination of fruit juices including or not including plum juice. It was agreed, in connection with the packing media, water and plum juice, and water and a combination of fruit juices, that it would be necessary to draw a distinction in the labelling section between the resultant packing medium which contained more fruit juice than water and vice versa.

Colour

10. The Committee amended this provision to read as follows: "The colour of the product is normal for the variety canned, taking into consideration any added artificial colour.

Defects and Allowances

11. A number of delegations wished to provide for certain changes in this section, but after some discussion, and as this subject had been considered in detail when the standard had last been considered by the Committee, the Committee decided not to make any change. The delegation of the Argentine stated that it wished to be on record as favoring a reduction in the tolerances for blemished plums and for other defects.

Food Additives

12. The Committee noted that the provision on colours had been temporarily endorsed. The delegation of the USA stated that it did not permit the use of artificial colours in this product and expressed some concern that the use of Ponceau 4 R was permitted. The delegation of Poland was opposed to the use of artificial colours in all canned fruits and vegetables. The delegation of Norway reserved its position regarding the use of Ponceau 4 R and Erythrosine. The delegation of the Argentine stated that it was opposed to the use of colours and flavours in this product. The Committee also accepted the view of the Codex Committee on Food Additives that in the provision on natural flavours the words "except those which are known to represent a toxic hazard" should be deleted as they were considered to be redundant. The Committee also thought it appropriate to delete the word "natural" in the heading

"Natural Flavours", since natural and identical synthetic equivalents were covered. The attention of the Committee was drawn to the fact that the Commission at its Eighth Session had agreed that a provision on acidifying agents--the same as in the Standard for Canned Strawberries --should be included in this standard. The Committee considered that the sugar/acid ratio in this product was such that the use of acidifying agents did not appear to be necessary. The Committee was not aware which delegation at the Committee's Session had proposed the inclusion of acidifying agents in this product and in the absence of any technological justification for the use of acidifying agents in Canned Plums the Committee decided to include the provision on acidifying agents in square brackets in the standard, and to bring its views on this subject to the attention of the Commission.

Hygiene

13. This section was amended in accordance with the decisions of the Eighth Session of the Codex Committee on Food Hygiene (para. 13-15; ALINORM 72/13).

Minimum Drained Weight

14. The delegation of France considered that the minimum drained weight figures provided for in the standard were too low and considered that they should be raised to 53% for whole styles and 59% for half style. Other delegations in view of the long discussions on this matter in other years, and their experience in this particular field, felt that the wording in the present standard was quite satisfactory. After some discussion the Committee decided to make no change in the standard. The delegation of France, which was supported by the delegation of the Netherlands, wished its position to be recorded.

Labelling

15. The Committee noted that subsection 6.1.1 of the standard had been amended editorially and endorsed by the Codex Committee on Food Labelling at its Sixth Session. The Committee considered, however, that even the amended version of this subsection did not bring out the intent of the Committee as clearly as it should. The Committee, therefore, revised this subsection in the way indicated in the revised version of the standard attached to this Report. In the part of this provision which provided that Greengages, Damsons, Mirabelles, and Cherries need not be accompanied by the word "plum", where the omission of the word "plum" would not mislead or deceive the consumer, the Committee considered that "Cherry plums" would always have to be described as cherry plums on the ground that the omission of the word "plums" in this context could possibly mislead or deceive consumers. The Committee agreed that the labelling section of the standard should be editorially revised along the lines agreed upon in the case of the Standard for Canned Pears, due

account being taken of the revised version of this standard so far as packing media is concerned. The Committee considered the question of whether it was right that, in the case of a packing medium consisting of water and plum juice or water and a combination of fruit juices, the label should state that the product was packed in water, with no reference being permitted to the fact that there was some fruit juice present in the packing media.

16. In this connection the U.S. delegation explained that some years ago when the idea of packing fruits in their own juices was advanced, it was recognized in the USA that a reference to fruit juice on the label would have appreciable sales appeal. In order to ensure that this appeal would be warranted, the decision was made to permit reference on the label to juice only when all of the liquid packing medium was juice. Any added water whatever forfeited permission to refer to juice on the label. This philosophy was reflected in the standards dealt with by the Committee. The U.S. delegation continued and pointed out that this had now generated some difficulties. Firstly, it proscribed the use of liquid sweeteners, e.g. glucose syrup, with juice packs. Secondly, as juices different from the fruit with which they are packed came into use, the need to use concentrated juices arose. For example, pears might be packed in Oregon with Concord grape juice from New York. This required the use of water for reconstitution. Further, some of the juices might be strongly flavoured and give the best flavour characteristics when diluted and sweetened.

17. It was technically incorrect to designate a packing medium as "In Water" or "In Light Syrup" when in fact much - or perhaps nearly all - of the liquid phase was actually fruit juice. A more forthright approach would be to permit both water and juice with a clear and truthful declaration on the label. The Committee agreed with this suggestion and decided that the relevant labelling provision should be redrafted to permit mention of juice as well as water and also to indicate clearly to the consumer which of the two - water or juice - was preponderant in the packing medium.

18. The delegation of Canada considered that if the juice used in the packing medium was a reconstituted juice, this fact should be indicated on the label. It was noted, however, that the standards for fruit juices being developed by the Joint ECE/Codex Alimentarius Group of Experts on Standardization of Fruit Juices did not require that the fact of reconstitution be included as part of or in close proximity to the name of the product, but they did require that it be mentioned in the list of ingredients. The Committee agreed that if the juice was reconstituted this fact should be indicated in the list of ingredients.

Net Contents

19. The delegations of Argentina and Japan stated that in addition to the declaration of net contents they considered that a declaration of the drained weight of the product should be mandatory.

Methods of Analysis and Sampling

20. An appropriate modification was made to the subsection dealing with determination of drained weight to correct the literature reference.

Status of the Standard

21. The Committee agreed to advance the Standard for Canned Plums to Step 8 of the Procedure. In response to the Commission's directive at its Eighth Session, the Committee also considered that the standard was ready for advancement to Step 9.

Standard for Canned Raspberries Reconsidered at Step 7.

22. The following were the main points emerging from the Committee's consideration of the Standard for Canned Raspberries. The Committee agreed to revise the section on packing media in line with their decision relating to syrup strengths for canned plums, that is to say, that two basic syrup strengths would be provided for with two additional optional packing media. The delegation of Canada entered the same reservation as it did in connection with the Standard for Canned Plums.

Syrup Strengths

23. The delegation of the USA stated that in their opinion the figures for syrup strength were too low, as they used a heavier syrup for canned raspberries than for canned plums and, therefore, proposed the figures of 15° Brix for Light Syrup, 20° Brix for Heavy Syrup and 27° Brix for Extra Heavy Syrup. Some delegations considered that the standard was satisfactory as drafted. After considerable discussion the Committee agreed to amend the figures as follows:

Not less than 15° Brix for Light Syrup
Not less than 20° Brix for Heavy Syrup

In addition, the Committee agreed that the minimum Brix value for the optional packing medium, Extra Heavy Syrup, should be changed from 25° to 26° Brix. The other optional packing medium of not less than 11° Brix remained unchanged.

Defects and Allowances

24. The delegation of France, supported by the delegation of Argentina, expressed the view that the tolerances for defects and allowances were too high. The delegation of France proposed that the maximum limit for blemishes should be no more than 5% by weight of drained raspberries and no more than 20% for crushed or broken berries. They also proposed that the total amount of defects for blemished, crushed or broken berries be reduced from 25% to 20%. The delegations of Canada and Poland considered that there was no need to amend this section as in their opinion it was

entirely satisfactory. The delegation of the USA, supported by the delegation of Australia, proposed that the total figure for defects be raised to 30%. The Committee agreed to reduce the maximum limit for blemished berries from 12% to 10% and decided to leave the remainder of this section unchanged.

Food Additives

25. The delegation of Canada questioned the need for the use of acidifying agents in canned raspberries. The Committee agreed that there did not appear to be any technological justification for these acidifying agents in this product and, therefore, decided to delete this provision from the Food Additives section.

Colours

26. The delegation of Poland reserved their position as regards the use of colours, as these substances were not permitted to be used in their country. The delegation of the USA reserved their position as to the use of Ponceau 4 R for toxicological reasons. The delegation of Norway reserved its position as to the use of Ponceau 4 R and Erythrosine as these colouring matters were not allowed according to its national regulations. The Committee noted that the colours listed had been temporarily endorsed.

Hygiene

27. This section was amended in accordance with the decision of the Eighth Session of the Codex Committee on Food Hygiene. (Paras. 13-15 of ALINORM 72/13.)

Labelling

28. It was agreed that the labelling section should be revised along the lines agreed upon for canned plums, taking into account the amendments which were made in the section on packing media regarding the various combinations of water and juices constituting packing media. The delegation of Norway, supported by the delegation of Trinidad and Tobago, proposed that an additional section be included in this section requiring a declaration of the amount of sugar present in the product. It was pointed out that it would be difficult, from a practical point of view, to give a meaningful declaration on the label, as the amount of sugar would vary according to the maturity of the berries and the ratio of fruit to packing media and that, if such a course were to be followed, a declaration of the amount of calories would probably be more useful to the consumer. The Committee agreed to leave the text unchanged.

Country of Origin

29. The delegation of Argentina reserved their position on the provision relating to Country of Origin, as their regulations required the country of origin to be declared.

strengths and two optional packing media, with the proviso that only juices from the five permitted types of fruit would be allowed. The delegation of Canada stated that in view of the increasing demand for a greater choice of syrup strengths in canned fruits, they saw no reason for restricting these syrups as was, in their view, done in this standard, and they, therefore, reserved their position on this matter.

Defects and Allowances

36. The delegation of Argentina stated that subsections (c), (d), and (e) should be deleted as food products containing such extraneous materials were not permitted in their country.

Food Additives

37. The Committee took note of the request of Belgium in its written comments to allow for the use of sulphur dioxide as a preserving agent up to a maximum level of 10 mg/kg. It was also noted that this process was restricted to non-red fruits. The Committee was not persuaded as to the need for such an additional provision and decided not to permit the use of sulphur dioxide in the standard.

38. The attention of the Committee was drawn to the report of the Codex Committee on Food Additives (Appendix II, ALINORM 71/12) in which that Committee had considered that the words, "except those which are known to represent a toxic hazard" were redundant and should be deleted, and that the title "artificial flavours" should also be deleted as the flavours in question were natural. The Committee agreed to amend the standard accordingly.

39. It was also noted that the Codex Committee on Food Additives had temporarily endorsed the use of ascorbic acid and had requested this Committee to propose a maximum level for this additive. In this connection, the Committee agreed with the proposal of several delegations to allow for a maximum level of 500 mg/kg for L-ascorbic acid.

Hygiene

40. This section was amended in accordance with the decisions of the Eighth Session of the Codex Committee on Food Hygiene (ALINORM 73/13, paras. 13-15).

Labelling

41. The Committee agreed to revise the labelling section, as appropriate, due account being taken in particular of the changes made in the section on packing media. The delegations of Argentina and Japan stated that in addition to the declaration of net contents they considered that a declaration of the drained weight of the product should be mandatory. The delegation of Argentina also stated that the declaration of Country of Origin should be mandatory.

Net Contents

30. The delegations of Argentina and Japan stated that in addition to the declaration of net contents they considered that a declaration of the drained weight of the product should be mandatory.

Status of the Standard

31. The Committee agreed to advance the Standard for Canned Raspberries to Step 8 of the Procedure. The Committee also considered that the standard was ready for advancement to Step 9.

Standard for Canned Fruit Cocktail Reconsidered at Step 7

32. The following were the main points emerging from the Committee's consideration of the Standard for Canned Fruit Cocktail.

Product Definition

33. The delegation of Argentina and Japan requested that apples be added to the types of fruit which were allowed in Canned Fruit Cocktail. The delegation of Japan drew the attention of the Committee to the written proposals of Austria, Hungary, and India which had been submitted at earlier sessions as well as to the written proposals of Argentina, Belgium, and France, who had also requested the addition of apples at the present session. Belgium and France had also requested that several other types of fruits be provided for in the standard. The delegation of Australia recalled that this matter had been thoroughly discussed at the Committee's Eighth Session (para. 14(a) of ALINORM 71/20) and stated that Canned Fruit Cocktail was a long established product of well known composition internationally and contained mixtures of only five fruits: peaches, pears, pineapples, grapes, and cherries and indicated that the position was similar in their countries, and pointed out that the proposals of the countries who wished to include other types of fruit could be accommodated in the draft Standards for Canned Fruit Salad or Canned Tropical Fruit Salad. The Committee decided, therefore, to make no change in the composition of canned fruit cocktail in this respect.

34. The delegation of Trinidad and Tobago drew the attention of the Committee to the fact that the standard, as drafted, allowed any fruit customarily called pears to be used; e.g., avocados. The Committee noted that this point was equally valid for some of the other types of fruit provided for and decided to qualify the words "any variety" by adding the phrase "of the species of _____ (botanical name)." The delegation of Argentina repeated their reservation regarding the permitted use of artificial colours.

Packing Media

35. It was agreed that this section would be amended in line with the decision on canned plums and canned raspberries to provide for two basic syrup

Status of the Standard

42. The Committee agreed to advance the Standard for Canned Fruit Cocktail to Step 8 of the Procedure. The Committee was also of the view that the standard was ready for advancement to Step 9.

Recommended Action on the Standards for Canned Pears, Canned Mandarin Oranges, and Canned Strawberries

43. The attention of the Committee was drawn to the Standards for Canned Pears and Canned Mandarin Oranges which had been advanced by the Committee at its Eighth Session in June 1971 to Step 8 for consideration by the Commission at its Ninth Session (November 1972), as well as to the Standard for Canned Strawberries which had been adopted by the Commission at Step 8 at its Eighth Session (June/July 1971). In view of the decision taken by the Committee regarding packing media and syrup strengths in the Standards for Canned Fruits considered at the present session, the Committee considered that it would be helpful to the Commission, in the consideration of the Standards for Canned Pears and Canned Mandarin Oranges at Step 8, if the Committee were to indicate its views on the subject of packing media and syrup strength in these two standards.

44. The Committee accepted the view that, as in the case of the three canned fruits standards considered at the present session, the Standards for Canned Pears and Canned Mandarin Oranges should be redrafted to provide for two basic syrup strengths and two optional packing media in the same sort of terms as appeared in the Standards as revised at the present session. In the redraft there would be no change in the Brix figures in these two standards.

45. Furthermore, the Committee saw no reason, in principle, why the Standards for Canned Pears and Canned Mandarin Oranges should not include the same sort of provisions regarding the use of additional compatible juices, as had been agreed upon in the case of the Standards for Canned Plums and Canned Raspberries, with consequential labelling amendments. The delegation of Japan, however, stated that it was not in agreement with this particular recommendation. The Committee agreed that the U.S. Codex Secretariat should revise the sections on packing media and labelling in the Standards for Canned Pears and Canned Mandarin Oranges, and transmit them to the Codex Secretariat in Rome, without delay. Such revision would be restricted to putting the sections on packing media in the new format, and to consequential labelling changes. The Codex Secretariat in Rome would then be in a position to draw the attention of governments, well in advance of the Commission Session, to how the sections on packing media and labelling would look in these two standards, if, taking into account government Step 8 comments, the Commission were to agree that the considerations which led the Committee to amend the canned fruit standards at the present session, were equally valid in the case of the Standards for Canned Pears and Canned Mandarin Oranges.

46. While the Committee recognized that the Standard for Canned Strawberries had been adopted by the Commission at Step 8, it was agreed to advise the Commission that, in its view, the format of the section of the standard on packing media should be amended to bring it into line with the format agreed upon for the canned fruits standards considered at the present session (two basic syrup strengths and two additional optional packing media). As in the case of the Standards for Canned Pears and Canned Mandarin Oranges, the Committee saw no reason, in principle, why the Standard for Canned Strawberries should not include the same sort of provisions regarding the use of additional compatible juices, as had been agreed upon in the Standards for Canned Raspberries and Canned Plums. The delegation of Japan disassociated itself from this latter recommendation of the Committee.

Standard for Canned Mushrooms Reconsidered at Step 7

47. The following were the main points emerging from the Committee's consideration of the Standard for Canned Mushrooms.

Styles

48. The Committee agreed to amend subsection 1.4(g) of the standard to read as follows: "Stems and Pieces (Cut)--Pieces of caps and stems of irregular sizes and shapes." Taking into account consumer demand, the Committee also agreed that it would be desirable to provide for other optional styles not already provided for in the standard such as "Diced" or "Chopped".

The Committee agreed that it would be necessary to provide a specific tolerance for units in the styles of "Whole" and "Button" that exceeded the stem length specified for the respective styles. The Committee agreed to the introduction of a new provision in the standard on this point, with a tolerance of 10% by count of units that exceeded the specified stem length.

Designation in Accordance with Size

49. The delegation of the Netherlands stated that in its view this provision was not really meaningful to the consumer and the Committee agreed with this view and decided to delete this section from the standard.

Essential Composition and Quality Factors

Other Ingredients

50. The Committee noted that part of the provision of subsection 2.1(c) was missing from the French version of the standard. The missing text reads as follows: "If butter is added, it must amount to not less than 3% of the final product."

Texture and Character

51. The Committee agreed, on the proposal of the delegation of the Netherlands, that it would be necessary to provide a small tolerance, for technological reasons, in the styles of "Buttons" and "Whole" and "Grilling" to cover detached caps or stems. The Committee agreed to a tolerance of 5% in this respect. The delegation of Japan reserved its position with respect to the decision of the Committee to provide this tolerance, and stated that in Japan no tolerance for the presence of detached caps or stems in the styles mentioned was permitted.

Defects

52. The delegation of the Philippines drew attention to the fact that no specific limit was laid down in this provision which permitted that canned mushrooms "(a) may contain no more than a trace of soil, sand, grit, or any other extraneous matter whether of mineral or organic origin. . .". The representative of the International Organization of Consumers Unions also pointed out the desirability, in the interest of consumers, of fixing such a limit. The Committee agreed that it would be desirable to fix a limit, but it recognized that the precise figure to be fixed would depend to a large extent on the methodology to be employed for determining compliance with the limit. At the present time, the Committee did not have before it internationally acceptable methodology in this respect but it agreed that it would be its intention to develop an internationally acceptable methodology in due course.

Food Additives

53. The Secretariat informed the Committee of the present situation with regard to the endorsement of the additives listed in this section of the standard. The Committee agreed to provide for the use of Pectin within the overall tolerance of 1% provided for in the standard with respect to modified starches, vegetable gums, alginates, propylene glycol alginate. The Committee agreed to delete Brilliant Black from the standard following an explanation given by the delegation of Australia, which had requested, at an earlier session, that provision be made in the standard for this colour, that there was no longer a technological need in Australia for this colour.

The delegation of France stated that it was opposed to the use of thickening agents in this product, but it was not opposed to the use of Pectin. The delegation of Poland stated that it was opposed to the use of Calcium Disodium EDTA and alginates. The delegations of France and Japan were also opposed to the use of Calcium Disodium EDTA. The delegation of Norway stated that it was opposed to the use of Monosodium Glutamate and Calcium Disodium EDTA which were not allowed in this product in Norway. The Committee considered a request of the delegation of Belgium that Sulphur Dioxide at the level of 10 mg/kg be provided for, as was also requested in the Standard for Canned Fruit Cocktail. The Committee was not persuaded as to the need for such a provision. The

delegation of Argentina was opposed to the use of modified starches and drew attention to the fact that Belgium in its written comments was also opposed to their use in this product.

Hygiene

54. It was agreed that this section should be amended in accordance with the decision of the Eighth Session of the Codex Committee on Food Hygiene. (Paras. 13-16 of ALINORM 72/13).

Minimum Drained Weight

55. A number of delegations were in favor of raising the figure for minimum drained weight in respect of regular packs from 53% to 55%. There was considerable discussion on this proposal during which it emerged that a number of countries found that it would be extremely difficult to comply with a figure of 55%. It was agreed, therefore, to leave this provision unchanged at 53%.

Labelling

Name of Food

56. The Committee made the necessary amendment in this section of the standard to cover the two additional styles which it had agreed to provide for, namely, diced and chopped. In subsection 6.1.2.2 the Committee agreed that the reference should be to butter fat.

Net Contents

57. The delegation of Japan, supported by the written comments of Austria and the Federal Republic of Germany, stated that it wished to see provision made for the declaration of drained weight. Other delegations felt that this was not necessary.

Country of Origin

58. The delegation of Argentina reserved its position in favor of a mandatory declaration of country of origin.

Size Representation

59. The Committee deleted this subsection as a consequence of its earlier decision to delete the provision entitled "designation in accordance with size".

Status of the Standard

60. The Committee agreed to advance the Standard for Canned Mushrooms to Step 8 of the Procedure. The Committee also considered that the standard was ready for advancement to Step 9.

Standard for Canned Asparagus Reconsidered at Step 7

61. The following were the main considerations emerging from the Committee's consideration of the Standard for Canned Asparagus.

Styles

62. In connection with subsection 1.2(d), which provided that Cuts and Heads or Cut Spears consist of stalks cut transversely into pieces with and without heads, not more than 6 cm but not less than 2 cm in length, the delegation of the Netherlands proposed that the figure of 2 cm should be increased to 3 cm with a view to improving the quality of the product so far as the presence of fibrous parts was concerned. This proposal was supported by the delegation of France. Some delegations, however, pointed out that the fibrous part of the asparagus was normally removed during preparation for canning. After some discussion, the Committee agreed to leave this provision unchanged.

Allowances and Styles

63. The delegation of the Netherlands pointed out that, in subsection 1.2.1(a), dealing with allowances in the styles - Long Shoots, Shoots, and Tips, the tolerance of ± 2 cm was satisfactory for Long Shoots and Shoots, but was too large for Tips. The delegation of the Netherlands proposed the following tolerance for Tips: "at least 75%, by count, of the units are within ± 0.5 cm of the predominant length and at least 95%, by count of the units are within ± 1 cm of the predominant length". It was pointed out by some delegations that according to their experience an allowance of ± 0.5 cm would be impractical. After some discussion, the Committee decided not to adopt the proposal of the delegation of the Netherlands and to leave the provision unchanged.

Colour Types

64. The Committee took note of the written comment of the Federal Republic of Germany to the effect that the Mixture described in subsection 1.3(d) should be deleted from the standard. The Committee was informed that there was, in fact, international trade in this particular product and agreed, therefore, to leave it in the standard.

Designation in Accordance with Size

65. Following the decision taken in the case of canned mushrooms, the Committee also agreed that in this standard the reference to "exact graphic representation of the average diameter" and "a statement of the average diameter" should be deleted.

Compliance with "Single Size" Names

66. The Committee considered a proposal of the delegation of the USA that this subsection should be amended since it applied to the individual containers or sample unit and not to sample average. The Committee agreed to accept this proposal which appears in the revised version of the standard pending the outcome of the deliberations of the Codex Committee on Methods of Analysis and Sampling on the whole question of sampling and sampling procedures, at which step it might be necessary to reconsider this provision.

Defects and Allowances

67. The representative of the International Organization of Consumer Unions drew attention to the need, in the interest of consumers, for fixing precise limits with respect to "shattered heads" and other "shattered asparagus material" and "extraneous matter". The Committee agreed that in principle this would be desirable but pointed to the difficulty in practice of quantifying these kinds of defects. The delegation of the Netherlands stressed the importance, from the point of view of quality, of placing a limitation on fibrous units, and proposed, therefore, to insert a new provision in the standard covering such units. While the Committee was sympathetic to the viewpoint of the delegation from the Netherlands, it considered that, in view of the difficulty of arriving at agreement as to objective criteria for achieving this end, it would not be feasible to include such a provision in the standard at this time.

Food Additives

68. The Committee took note of the present position with regard to the endorsement of the additives listed. The Committee agreed that ascorbic acid was not used in the product as an acidifying agent and, therefore, removed it from the list of acidifying agents and placed it elsewhere in this section. The Committee also agreed to provide for the use of pectin in this standard within the over-all tolerance of 1% in respect of modified starches, vegetable gums, alginates, and propylene glycol alginate. Several delegations either reserved their positions or indicated their opposition to the use of some of the additives provided for in this section.

Contaminants

69. The Committee noted that the level of 250 mg/kg for tin had been temporarily endorsed subject to review within 2 years of the adoption of the standard. The delegation of Poland indicated that it wished to see the figure reduced to 150 mg/kg. The delegation of Argentina wished to see the figure reduced to 100 mg/kg. The Committee agreed that it did not have sufficient data at its disposal at the present time to warrant changing the figure of 250 mg/kg.

Hygiene

70. This section was amended in accordance with the decision of the Eighth Session of the Codex Committee on Food Hygiene (paras. 13-16, ALINORM 72/13).

Minimum Drained Weights

71. The delegation of the Netherlands proposed that the minimum drained weight in regards to "Long Shoots" and "All Other Styles" for peeled asparagus should be raised from 60% and 58% to 64% and 60%, respectively. The delegation of France supported the delegation of the Netherlands. The delegation of the USA stressed the need for leaving the figures as they were in the standard, as a matter of safety, and pointed out that, if asparagus were packed too tightly in the containers, there was some risk that the heat penetration might not be adequate to ensure an entirely safe product. After some discussion on this point, the Committee agreed not to alter the figures for minimum drained weight. The delegations of France and the Netherlands reserved their positions on this decision.

Labelling

72. The delegation of Japan stated that in addition to the declaration of net contents it considered that a declaration of the drained weight shall be mandatory. The Committee agreed to delete subsection 7.6.1.2 from the standard, because of its earlier decision to delete the reference to "exact graphic representation of the average diameter" and "a statement of the average diameter". The delegation of France stated that, in its view, the use of the size names mentioned in subsection 7.6.1.1 should be mandatory. The delegation of Argentina reserved its position in favor of a mandatory declaration of country of origin.

Status of the Standard

73. The Committee agreed to advance the Standard for Canned Asparagus to Step 8 of the Procedure. The Committee was also of the view that the standard was ready for advancement to Step 9.

Standard for Raisins Reconsidered at Step 7

74. The following were the main points emerging from the Committee's consideration of the Standard for Raisins.

Scope

Product Definition

75. The Committee had before it an amended version of the section on Scope and the section on Product Definition put forward by the delegation of the United Kingdom in its written comments. The United Kingdom texts, as

slightly amended by the Committee during the session, were adopted, and appear in the revised version of the standard.

Maturity Characteristics

76. The Committee agreed that the second subparagraph of subsection 3.2.1, Maturity Characteristics, would be more appropriately placed under section 3.2.3, Definitions of Defects, and section 3.2.4, Allowances for Defects. The Committee deleted the second subparagraph in subsection 3.2.1 and expanded subsection 3.2.3(d) to read "Immature or Undeveloped Raisins". It also expanded subsection 3.2.4 by providing, in the defects column, for immature or undeveloped raisins with an increased tolerance of 6% in respect of seedless types and 4% in respect of the seed-bearing types.

Minimum Quality Requirements

77. In subsection 3.2.3, the delegation of the United Kingdom suggested that the moisture content in respect of "All other styles and/or types" should be reduced from 18% to 15%. There was some discussion on this proposal and it emerged that the lower figure would present significant difficulties for some of the producing countries. After some discussion, the Committee agreed to leave the figure unchanged.

Food Additives

78. The Committee was informed as to the situation in regard to the endorsement of the additives listed. In particular, the Committee noted that the Codex Committee on Food Additives had decided to postpone the endorsement of Sulphur Dioxide at the level of 1,500 mg/kg and had requested the Codex Committee on Processed Fruits and Vegetables to reconsider the maximum level it had proposed. At the Eighth Session of the Codex Committee on Processed Fruits and Vegetables, some delegations were of the opinion that the level of 1,500 mg/kg was excessive in view of the already large potential intake of the additive from various food sources, including wine and beer. Furthermore, it had been pointed out at the meeting of the Codex Committee on Food Additives that raisins were consumed by children and that there was a risk of exceeding the ADI by that group of the population. On the other hand, it had also been argued at the Session of the Codex Committee on Food Additives that the standard covered a range of products, including semi-dry raisins with a water content of approximately 16% and that, therefore, the maximum level of 1,500 mg/kg would be appropriate. At the present session, the delegation of Poland proposed that the figure be reduced to 500 mg/kg in the standard. The Committee agreed to bring to the attention of the Codex Committee on Food Additives the fact that this provision applied to bleached raisins only. Sulphur Dioxide was used for maintaining the "golden" colour. The Committee went on to point out that a substantial quantity of the bleached raisins went into bakery products and that, therefore, the level of Sulphur Dioxide would be dissipated. The Committee also pointed out that, although after sulphuring, which was carried out at the time

the raisins were dried, the level of SO_2 might reach 1,500 mg/kg, the amount of SO_2 present by the time the product reached the consumer would be considerably less with the passage of time. The Committee agreed, therefore, that it was necessary to provide for the level of 1,500 mg/kg SO_2 in the standard. A number of delegations stated that they would not be in favor of providing for mineral oil in the standard. It was pointed out, however, that the Joint FAO/WHO Expert Committee on Food Additives had established specifications for food grade mineral oil which limited any impurities present. The Committee agreed to leave the provision unchanged.

Hygiene

79. This section was amended in accordance with the decision of the Eighth Session of the Codex Committee on Food Hygiene. (Paras. 13-15 of ALINORM 72/13).

Methods of Analysis and Sampling

80. As regards the section on Methods of Analysis and Sampling, which was the main reason the Committee had decided at its last session to reconsider the standard at Step 7, the Committee took note of a Sampling Plan for Raisins which had been proposed by the delegation of the USA and which was contained in document CX/PFV 72/3, April 1972. The delegation of the USA briefly reviewed the main features of the sampling plan which was set out in this document, stressing that it was put forward as a basis for discussion. Several delegations expressed their appreciation to the US delegation for having produced the plan and commented favorably on various features of the plan. At the same time they drew attention to a number of shortcomings. The plan appeared to be based on the assumption that samples of this product would be homogeneous which was not necessarily the case in all countries dealing with the importation of raisins. The average quality concept would, therefore, hardly be acceptable for international trade purposes and the plan would hardly be suitable, therefore, for referee purposes. There were also some problems in identifying lots and there was also the question of what would constitute an adequate number of subsamples in larger lots. Attention was also drawn to the fact that ISO was doing some work in connection with the sampling of raisins. Taking into account the fact that the Codex Committee on Methods of Analysis and Sampling would be studying the whole question of sampling and sampling procedures, the Committee agreed to take no action on the sampling plan proposed by the US delegation pending the outcome of the deliberations of the Codex Committee on Methods of Analysis and Sampling on this subject.

81. The Committee agreed that the Electrical Conductance Method for Moisture Determination as set out in Annex I of Appendix VII to this Report would be an appropriate method and recommended it for endorsement by the Codex Committee on Methods of Analysis and Sampling. The Committee also decided to retain as an alternative method the oven drying method referenced in the Official Methods of Analysis of the AOAC, 11th Edition, 22.012 and 22.003(c).

82. As regards the Determination of Mineral Impurities (Sand) Test, the Committee agreed to recommend for endorsement the method set out in Annex II of Appendix VII to this Report. It recognized, however, that it would be unable to fix a precise limit for mineral impurities in the standard until such time as the method, which some countries had found to be satisfactory, had been fully collaboratively tested.

83. As regards the Determination of Mineral Oil, the Committee agreed to adopt the method set out in Annex III of Appendix VII to this Report and to recommend it for endorsement to the Codex Committee for Methods of Analysis and Sampling.

84. The Committee also agreed to recommend for endorsement the Method for the Determination of Sorbitol set out in Annex IV of Appendix VII to this Report.

Status of the Standard

85. The Committee agreed that the absence of a Sampling Plan for Raisins would not be a reason for not advancing the standard to Step 8. The Committee decided, therefore, to advance the standard to Step 8.

Standard for Jams (Fruit Preserves and Jellies) Reconsidered at Step 4

86. The following were the main points emerging from the Committee's consideration of the above standard.

Product Definition

87. The delegation of the Netherlands proposed that subsection 2.1.1(c) of the Product Definition, which stated that "Jams" or "Preserves" or "Conserves" was the product in which the prepared mixture was processed by the application of heat to a suitable consistency should be deleted. The purpose of this proposal was to accommodate in the standard a product which the Netherlands delegation considered to be jam, but which was prepared without the application of heat. The delegation of the USA stated that it would be in favor of providing for the new process in the standard and suggested the following alternative wording for subsection 2.1.1(c): "in which the prepared mixture is concentrated by the application of heat, or other physical means, to the specified soluble solids level". The Committee agreed that, in the absence of a technological paper from the Netherlands setting out methods by which this product, which was stated to be jam, could be produced without the application of heat, and in the absence of knowing whether this product would be generally considered to be recognizable as, jam, the Committee agreed not to alter the existing provision. The Committee was not standing in the way of progress in technology and would be prepared to reexamine the Netherlands' proposal when it had before it the technological paper referred to above. It was agreed that the paper to be prepared by the delegation of the Netherlands should be sent to the U.S. Codex Secretariat, which, in turn, would circulate it to Codex Contact Points.

88. The delegation of Japan drew attention to the difficulty of distinguishing between "Jams", "Preserves", and "Conserves". The delegation of the USA stated that in the USA the terms "Jams" and "Preserves" were used interchangeably. While some segments of the trade differentiated between the two names according to the wholeness of the fruit ingredient, there was no legal distinction made between them.

89. The Committee agreed to amend subsection 2.2.2.1(a), as it saw no reason for not permitting jam to be made from dried fruit. The observer of the IOCU (International Organization of Consumers Unions) pointed out that since a wide range of new fruit material can be used in this product it would be desirable to inform the consumer of this fact by a suitable label declaration.

Basic Ingredients

90. In subsection 3.1.1(2), the Committee agreed to mention fructose and to amend "invert sugar" to read "invert sugar syrup".

Fruit Content

91. The provision in subsection 3.2.1 which required the product to contain not less than 40 parts, by weight, of prepared fruit ingredient for each hundred parts, by weight, of finished product, had been the subject of a wide variety of government comments. It was clear from the government comments that many countries sought to have provided in the standard a variety of figures for minimum fruit content in respect of different fruits. The delegation of the United Kingdom drew attention to the fact that the Committee had decided at its previous session to fix a single minimum fruit ingredient content. It was now clear that, for technological reasons, there was a need to provide for a variety of figures in respect of minimum fruit content for various fruits, including a number of tropical fruits. There was also the fact that some countries had two or more standards for the same product with different levels of minimum fruit content. The delegation of the United Kingdom proposed, therefore, that section 3.2.1 be amended to read as follows: ". . . of finished product, provided that different minima (a) may be applied (i) in countries having more than one standard, and (ii) for tropical or exotic fruits, and (b) shall be applied to the following fruits". (List of such fruits to be found in the revised version of the standard). The delegation of Trinidad and Tobago stated that it would not be necessary to make a general exception for tropical fruits, as many, such as guava and mango gave satisfactory products with more than 40% fruit content. In their view the only reason for requiring an exception would be on technological grounds that the fruits were highly acid, had a high pectin content, or a strong flavour as in the case of ginger, cashew apple, and passion fruit. The delegation of Mexico drew attention to the desirability of avoiding the use of the term "exotic" in "exotic fruits", since what some countries regard as "exotic" fruits are not regarded as "exotic" in other countries.

It was pointed out that to include in an international standard a provision which expressly permitted countries to fix a figure for minimum fruit content different from the general minimum figure laid down in the standard, whether on the grounds that they already had more than one standard for a given product or, on any other grounds, was manifestly contrary to the idea of an international standard, intended, amongst other things, to facilitate international trade. In the interest of reaching international agreement on standards, it was implicit that national legislation might have to be amended. The Committee decided, however, that the proposal seemed, at this stage, to offer the best prospect of reaching international agreement on the question of minimum fruit content, and it was agreed, therefore, to include the United Kingdom proposal, as amended, in the standard in square brackets, and to invite governments to comment on the proposal. The Committee agreed with the view of the delegation of Trinidad and Tobago that it was important, in the interest of developing countries, that new varieties of fruit were not excluded from the standard.

92. The Australian delegation observed that the addition of 5% of lemon or pineapple to melon jam would bring the pH value into a "gelling" range which would result in a rubbery and undesirable texture of the jam. Similarly, in the case of melon and ginger jam, a 5% ginger content would result in an excessive ginger taste which would be uncharacteristic of the product. In the view of the Australian delegation a minimum content should not be prescribed in the standard for the minor fruits, lemon, pineapple, and ginger.

Optional Ingredients

93. The question arose, in connection with the figure for minimum fruit content, whether the optional ingredients listed in subsection 3.1.2(8) of the standard, that is, fruit juice or fruit juice concentrates in the case of jams, could, if added to the product, be considered as constituting part of the fruit ingredient, for the purpose of compliance with the minimum figure laid down for fruit ingredients. Some delegations thought the addition of juice or concentrated juice of the fruit covered by the standard would form part of the fruit ingredient. Others did not think so. Several delegations saw no reason for distinguishing between jams and jellies in this connection. The point was also made that if added fruit juices or fruit juice concentrates were to be regarded as forming part of the fruit ingredient, limits would have to be set on such additions. There was also the question of the addition of juices in the case of products made up of a number of fruits. In addition, there was the matter of the addition of juices of fruits other than of those used in the jam. The Committee was unable to reach any consensus on this subject, and governments were invited to consider this matter and to furnish their comments.

Two Fruits

94. The Committee agreed to include papaya in subsection 3.2.2.1.

Soluble Solids

95. The delegation of Morocco requested that the figure of 65% for soluble solids (finished product) be lowered to 62%. The delegation of the Netherlands was also in favor of lowering the figure of 65%. The delegation of Norway stated that, in its view, there was no need for a limit on soluble solids. The delegation of Australia stated that in its experience a minimum figure of 65% was necessary in order to obtain the right keeping quality in a jam without the use of preservatives, particularly after the product was opened in the home. The delegation of the United Kingdom concurred in this view and considered that to lower the figure would affect shelf life. On the principle that the use of preservatives should be avoided if adequate shelf life could be achieved without their use, the United Kingdom delegation was not convinced that there were good grounds for reducing the soluble solids figure. The Committee agreed to leave the figure unchanged at 65% (see also para. 102 on Preservatives).

Defects and Allowances

96. The delegation of the Netherlands proposed that subsection 3.4.2(a) and (d) should be deleted on the grounds that in this product these provisions gave rise to too many practical difficulties and were not really necessary in the interest of consumer protection. The delegation of the United Kingdom supported by the delegations of Australia and Argentina considered that none of the provisions in this section were really necessary in the product. The observer from the International Organization of Consumers Unions thought that the section should be retained in the standard in its entirety in the interest of consumers, even though the application of the provisions might present some difficulties. The delegation of Poland thought that the provision should remain in the standard, as did also the delegation of Canada which suggested an amendment to (a) in the subsection (2 pieces per 500 grams). In view of the fact that the standard covered a wide range of fruits from all over the world, in respect of which the Committee could not fix at this time a single set of figures which would necessarily be valid for all fruits, the Committee decided to leave section 3.4.2 in square brackets and to seek government comments.

97. The delegation of Poland required that a new section be introduced on mineral impurities at proposed maximum limits of 0.03% by weight for strawberry jams and 0.01% for others. The delegation of Poland supported this proposal with a narrative justification in its written comments. The Committee agreed that in the absence of agreed methodology it would be difficult to fix definitive figures. The Committee agreed to include the Polish proposal in square brackets and invited the Polish delegation to make the methodology available to the U.S. Codex Secretariat for transmission to governments.

Food Additives

98. The Committee noted the present position with regard to the endorsement of the additives provided for. As regards acidifying agents the Committee noted the remarks of the Food Additives Committee concerning l-Tartaric acid and Fumaric acid (low ADI). It was agreed that the remarks of the Food Additives Committee be brought to the attention of governments and that governments which seek to have these acids provided for in the standard be asked for information as to the necessity for their use and at what level. The delegation of the USA indicated that there were certain technological advantages in the use of these acids.

99. As regards the pH regulating agents, the remarks of the Food Additives Committee were also noted. The delegation of the USA pointed out that there was a technological need for these pH regulating agents because of the acidity of the various fruits. Their use was necessary in order to obtain the proper consistency and proper gell strength. The delegation of the United Kingdom wished to have sodium hydroxide provided for in the standard, pointing out that the advantage was a lesser amount of the substance was needed for adjustment. The Committee decided not to include sodium hydroxide in the standard at this time and invited the delegation of the U.K. to furnish further information of the use of this substance for the next session.

Thickening Agents

100. As regards Agar Agar, governments were invited to suggest maximum levels of use in their written comments for the next session of the Committee.

Colours

101. It was agreed that in their written comments for the next session, governments should include which colours they need to use and in which products.

Preservatives

102. The Committee took note of the remarks of the Food Additives Committee that the esters of para-hydroxy benzoic acid should be specified. The Committee decided to consult governments. The point had been made earlier in this report by the delegation of the United Kingdom, supported by others, (para. 95) that if the jam had a soluble solids content of 65% and if it had been properly prepared, there would be no need for the use of preservatives. However, attention was drawn to the fact that in tropical countries or countries which experience high humidity, even with a soluble solids content of 65%, the use of preservatives might still be necessary. The Committee thought it well to bring this point to the attention of governments in considering the need for and level of use of the preservatives listed. Some delegations thought that the figure for sulphur dioxide should be reduced to 50 mg/kg and others thought that in any event the limit should not apply only to non-hermetically sealed

Basic Ingredients

110. The Committee agreed to amend this section to cover fructose and invert sugar syrup, as it had been done in the Standard for Jams and Jellies.

Other Ingredients

111. The Committee agreed that there appeared to be no need to provide for the use of vinegar in this product.

Formulation

112. The delegation of Canada stated that in Canada there were standards which set a minimum figure of 27% of prepared fruit. In the U.S.A. the figures were 20% for bitter marmalade and 27% for sweet marmalade. It appeared that for bitter marmalades the minimum figure tended to be 20% and for the sweeter marmalades the figures tended to be higher. The delegation of the Netherlands sought to have a minimum of 17% provided for in the standard and mentioned that a product with 10% of prepared fruit was on sale in their country. There was some question as to whether the product with 10% of prepared fruit was marmalade as generally understood in many parts of the English speaking world and as to whether this product properly fell within the scope of the present standard, the delegation of the Netherlands was invited to prepare for the next session a technological paper on the product it sought to have provision made for in the standard.

Food Additives

113. Substantially the same decisions were taken and the same action decided upon as in the Standard for Jams and Jellies. Subsection 4.8, Firming Agents, was deleted. Several countries registered their objections or reservations on various provisions in this section. Substantially the same decisions took place on the need for preservatives and the Committee decided to place the provision in square brackets as in the case of jam. During the discussion, the delegation of Canada supported by other delegations emphasized that the characteristics of citrus marmalades were different from those of jams and jellies and reemphasized their view that preservatives were not necessary.

Name of the Food

114. It was noted that the name of the product "Marmalade" had been translated in French as "Marmelade", but the term "Marmelade" as understoon on the continent of Europe, did not appear to apply specifically to the product covered by this standard. The delegation of Morocco stated that the product covered by the standard was known in French as "confiture d'agrumes". It was agreed that this was a matter which would need to be clarified. In addition the question of whether a jelly marmalade should be designated as "Jelly Marmalade" and not simply as "Marmalade" would need to be considered. The delegations of the Netherlands and the United Kingdom agreed to prepare a paper for the next session of the Committee dealing with these matters. The paper would also cover the corresponding matters in the Standard for Jams and Jellies.

containers. It was noted that sulphur dioxide should only be present by reason of carryover from raw materials. The Committee agreed to place the section on preservatives (other than the reference to sulphur dioxide) in square brackets.

Firming Agents

103. The Committee agreed to delete Calcium-metabisulfite and to reduce the level of use for the two remaining firming agents to 500 mg/kg, with the square brackets removed.

General Remarks on Food Additives Section

104. Several delegations indicated their opposition to and reservations regarding the various parts of the section.

Name of the Food

105. It was noted that the subsection 7.1.1 provided for the terms "Jam", "Preserves", or "Conserves" to be used and governments were invited to comment on these names (for the general problem of names see para. 114).

Status of the Standard

106. The Committee agreed to advance the standard for Jams (Fruit Preserves) and Jellies to Step 5 of the Procedure.

General Standard for Citrus Marmalade Reconsidered at Step 4

107. The following were the main points emerging from the Committee's consideration of the above standard.

Product Definition

108. The Committee amended the end of the first paragraph in this section (2.1.1) dealing with the removal of peel, to bring out the intended meaning more clearly.

Other Definitions

109. The delegation of France stated that, in its view, it should be made clear that the citrus fruits had not been previously treated with diphenyl. The delegation of the U.K. stated that it had carried out work in the U.K. to determine whether there had been any significant carry-over of diphenyl and so far the results showed that any traces present were minimal. The delegation of the U.K. agreed to furnish a paper on this subject for the next session.

Status of the Standard

115. The Committee agreed to advance the Standard for Citrus Marmalade to Step 5 of the Procedure.

Consideration of Proposed Amendments to the Recommended Standards for (1) Canned Peaches, (2) Canned Pineapple, and (3) Canned Tomatoes, at Step 4

116. The Committee considered the amendments proposed to the above three standards as set out in paragraphs 239, 241, and 243 of the Report of the Eighth Session of the Commission (ALINORM 71/31), in the light of government comments received thereon. In the case of the proposal to provide for the use of L-Ascorbic Acid in the Standard for Canned Peaches, the Committee agreed on a maximum level of use of 700 mg/kg. The Committee also agreed that it would be necessary to make it clear in the Labelling Section of the standard that the use of L-Ascorbic Acid was for the purpose of preserving colour. The amendment as agreed to by the Committee is set out in the Appendix X to this Report, and the Committee agreed that this amendment should be advanced to Step 5 of the Procedure, and added the recommendation that Steps 6, 7, and 8 be omitted.

117. The Committee adopted the Proposed Amendment, concerning excessive trim, to the Standard for Canned Pineapple and agreed to advance it to Step 5 of the Procedure with the recommendation that Steps 6, 7, and 8 be omitted. The text, as adopted by the Committee, appears as Appendix XI to this Report.

118. As regards the Amendment Proposed to the Standard for Canned Tomatoes, the Committee agreed, in the light of government comments, to provide for two additional firming agents. The amendment as adopted by the Committee appears as Appendix XII to this Report. In view of the fact that the Amendment related to styles which had only recently been introduced, the Committee decided not to recommend that Steps 6, 7, and 8 be omitted.

Consideration of Proposed Amendments to the Recommended Standard for Canned Green Beans and Wax Beans at Step 2.

119. The Committee had before it amendments proposed by the Netherlands to the above standard. These amendments were contained in Document CX/PFV 72-8. As time did not permit the consideration of these proposed amendments, the Committee agreed to recommend to the Ninth Session of the Commission that approval be given to proceeding with the consideration of these proposed amendments. The Committee decided to seek approval to examine them in detail at its next session at Step 2 in the light of government comments.

Other Business

120. Proposals Made by the Delegation of Argentina Regarding the Spanish Translation of Several Terms in the Standards

For All Fruits

i. The word syrup should be translated in the Spanish version as "almibar" instead of "jarabe", or at least if the word "jarabe" needed to be retained because of its use in other Spanish speaking countries, the word "almibar" should be included in parentheses afterwards.

Canned Fruit Cocktail

ii. The word "anana" should be included in parentheses after the word "pina" in translating the word "pineapple". The word "anana" was commonly used in Argentina and several other Spanish speaking countries.

iii. The term "duraznos" should be included in parentheses after the word "melocotones" in translation of the word "peaches".

iv. The term "manchas" should be included in parentheses after the word "macas" in translation of the term "blemished".

Canned Mushrooms

v. The term "hongos" should be included in parentheses after the word "setas". Other Spanish speaking delegations present at the session did not raise any objection.

Observations of the French Delegation Regarding the French Translation in Some Terms Regarding the Standard for Canned Asparagus

121. The French delegation drew attention to some points concerning the translation of certain terms in this standard. The Secretariat undertook to insure that the correct terminology appeared in the final version of the standard.

Methods of Analysis in the Standard for Canned Strawberries

122. The Committee noted the remarks and recommendations of the Sixth Session of the Codex Committee on the Methods of Analysis and Sampling in paragraphs 40, 41, and 42 of ALINORM 71/23. As regards the matter of a Method of Analysis for the Determination of Mineral Impurities in Canned Strawberries, the delegation of the USA drew the Committee's attention to a new method which was contained in Document CX/PFV 72-9. There was no change of substance in this method as compared with ISO method 1022. The Committee recommended that this method which is reproduced as Appendix XIV to this Report be sent for endorsement by the Codex Committee on the Methods of Analysis and Sampling. As regards the matter of the Method of Determination of Calcium in Canned Strawberries the Committee agreed to adopt the AOAC method which was referenced in the 11th edition as 32.014/15/16. The Committee recommended that this method be endorsed by the Codex Committee on the Methods of Analysis and Sampling, as being valid for the determination of Calcium in all canned fruits and vegetables.

123. In response to the request of the Codex Committee on the Methods of Analysis and Sampling in paragraph 40 in ALINORM 71/23, the Committee agreed to submit to the Codex Committee on the Methods of Analysis and Sampling the list on Methods and Analysis contained in Appendix XV to this Report.

Levels for Tin in the Standards for Canned Fruits and Vegetables

124. The delegation of the UK drew attention to the task which it had been asked to undertake at an earlier session concerning levels for tin in the various canned fruits and vegetables. The delegation of the UK had already compiled some information on this subject, but governments which were in a position to supply further information to the delegation of the UK were invited to do so as quickly as possible to enable the UK delegation to prepare a comprehensive paper on this subject. It was agreed that when the paper was prepared by the UK it should be sent to the US Secretariat which in turn would circulate it to governments.

Late Receipt of Comments

125. The Chairman drew attention to the desirability of governments sending their comments on standards either by air mail or by diplomatic pouch, to avoid late arrival.

Reservation of the Delegation of France

126. The delegation of France reserved its position regarding the last part of the draft Report (Paras. 86-129) and certain of the adopted standards (Canned Raspberries, Raisins, Jams (Fruit Preserves) and Jellies, Citrus Marmalade) which, owing to pressure of time could not be made available in French at the time of adoption.

Programme of Work for the Tenth Session of the Committee

127. The Committee agreed to consider draft standards for the following products at its next session at the Step indicated:

1. Jams (Fruit Preserves) and Jellies - Step 7
2. Citrus Marmalade - Step 7
3. Canned Carrots - Step 4
4. Canned Tropical Fruit Salad - Step 4
5. Canned Mature Processed Peas - Step 4
6. Cucumber Pickles - Step 2

The Committee also noted that an amendment to the Recommended Standard for Canned Tomatoes would be before it for consideration at Step 7 as well as the proposed amendments to the Recommended Standard for Canned Green Beans and Wax Beans at Step 2. Governments were asked to comment on the list of standards in abeyance (See para. 128C of ALINORM 72/20A) with particular reference to the justification criteria (See Procedural Manual, second edition, pages 45 and 46).

128. Status of Standards Being Elaborated by the Committee

A. Standards considered at the Ninth Session of the Committee

(i) Standards considered at Step 7 and advanced to Step 8 for consideration by the Commission at its Ninth Session

(a) Canned Plums
(b) Canned Raspberries
(c) Canned Fruit Cocktail
(d) Canned Mushrooms
(e) Canned Asparagus
(f) Raisins

(ii) Standards considered at Step 4 and advanced to Step 5

(a) Jams (Fruit Preserves) and Jellies
(b) Citrus Marmalade

B. Amendments considered at the Ninth Session of the Committee

(i) Amendments considered at Step 4 and advanced to Step 5

(a) Canned Peaches - Ascorbic Acid to preserve colour
(b) Canned Pineapple - Definition of "excessive trim"
(c) Canned Tomatoes - Firming Agents

(ii) Amendment not considered by the Committee - To be considered at Step 2 at next session of Committee

(a) Canned Green and Wax Beans

C. Standards held in abeyance and on which governments are requested to comment (See para. 127 of this Report)

(a) Canned beans in Tomato sauce
(b) Canned Two Fruit Salad
(c) Canned Fruit Salad (other than Tropical Fruit Salad)
(d) Dried Figs
(e) Dried Apricots
(f) Dates
(g) Pistachios

129. Date and Place of Next Session

The Committee noted that the Tenth Session of the Committee would be held in Washington, D.C., in 1973, probably about June.

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DRAFT STANDARD FOR CANNED PLUMS

Advanced to Step 8

1. DESCRIPTION

1.1 Product Definition

Canned plums is the product (a) prepared from clean, substantially sound, whole or halved fruit of plum varieties (cultivars) conforming to the characteristics of Prunus domestica L., greengage varieties (cultivars) conforming to the characteristics of Prunus italica L, mirabelle or damson varieties (cultivars) conforming to the characteristics of Prunus insititia L, or cherry plum varieties (cultivars) conforming to the characteristics of Prunus cerasifera Ehrh, which plums may be peeled and which have extraneous matter, including stalks (stems), removed; (b) packed with water or other suitable liquid packing medium and may be packed with flavouring ingredients; 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 Type

Plums of distinct varietal type will be designated:

(a) Yellow Plums
(b) Red Plums
(c) Purple Plums
(d) Greengages
(e) Damsons
(f) Cherry Plums
(g) Mirabelles

The color referred to in (a), (b), and (c) refer to skin-colour.

1.3 Styles

(a) Whole peeled with or without pits;
(b) Whole with peel with or without pits;
(c) Halves (cut into two approximately equal parts), peeled, without pits, and
(d) Halves (cut into two approximately equal parts), with peel, without pits.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Packing Media

(a) Water - in which water is the sole packing medium;

(b) Fruit juice - in which plum juice, or any other compatible fruit juice, is the sole packing medium;

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

(d) Mixed fruit juices - in which two or more fruit juices, which may include plum, are combined to form the packing medium;

(e) With sugar(s) - any of the foregoing packing media (a) through (d) may have one or more of the following sugars added: sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup.

2.1.1 Classifications of packing media when sugars are added

(a) When sugars are added to plum juice or other fruit juices, the liquid media shall be not less than 15° Brix and they are classified on the basis of the cut-out strength as follows:

Lightly sweetened (name of fruit) juice - Not less than 15° Brix.
Heavily sweetened (name of fruit) juice - Not less than 19° Brix.

(b) When sugars are added to water or water and plum juice or water and 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 15° Brix.
Heavy Syrup - - - - - - - - - - Not less than 19° Brix.

Optional Packing Media

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

Slightly Sweetened Water)	
Water Slightly Sweetened)	Not less than 11° Brix but
Extra Light Syrup)	less than 15° Brix.
Extra Heavy Syrup - - - - - -	More than 25° Brix.

2.1.2 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.

2.2 Quality Criteria

2.2.1 Colour

The colour of the product shall be normal for the variety, taking into consideration any added artificial colour.

2.2.2 Flavour

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

Canned plums with special flavourings shall have the flavour characteristic of that imparted by the plums and the other substances used.

2.2.3 Texture

The plums shall have a reasonably uniform texture and shall not be excessively firm nor unreasonably soft.

2.2.4 Defects and allowances

Canned plums shall be substantially free from defects within the limits set forth as follows:

	Maximum Limits
(a) Blemished plums (consisting of plums damaged by insects, friction or disease; or affected by stone gum, or discoloured to the extent that the appearance or eating quality is materially affected) - - - - - - - - - - - -	30% by weight of drained plums

	Maximum Limits
(b) Crushed or Broken fruit (consisting of, as applicable to the style: Whole style - plums which are deformed or broken to an extent that the normal shape of the fruit is seriously affected. Halves style - halves of plums which are damaged or torn to such an extent that they are smaller than 50% of a plum half.)	25% by weight of drained plums
Total of the foregoing defects (a) and (b)	35% by weight of drained plums
(c) Extraneous plant material (consisting of stalk (or stem) from the plum tree or any other harmless plant material)	1 piece per 200 grams of drained plums (based on averages)
(d) Loose pits in Whole style	3 per 500 grams of drained plums (based on averages)
(e) Pits or pieces of pits in the styles of Whole Pitted and Halves	2 per 500 grams of drained plums (based on averages)

2.2.5 Classification of "Defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in sub-section 2.2.1 through 2.2.4 (except extraneous plant material and pit material which are based on averages), 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 2.2.5 when:

(a) for those requirements which are not based on averages -- 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 Processed Fruits and Vegetables; 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 have been temporarily endorsed or are subject to endorsement by the Codex Committee on Food Additives as indicated:

	Maximum Level of Use
Colouring matter	
In "Red" or "Purple" Plums only - - - -	
Ponceau 4 R) Erythrosine)	singly, or in combination -- 300 mg/kg (subject to endorsement)
Flavours	
Natural flavours and their identical synthetic equivalents.	Limited by Good Manufacturing Practice (temporarily endorsed)
Acidifying agents	
Citric Acid) Malic Acid) Lactic Acid)	(temporarily endorsed)
L-Tartaric	(postponed subject to establishment of maximum levels)

4. HYGIENE

4.1 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).

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

4.3 When tested by appropriate means 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 be toxic.

5. WEIGHTS AND MEASURES

5.1 Fill of container

5.1.1 Minimum fill

The container shall be well filled with plums 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.

5.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 5.1.1 shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirement of 5.1.1 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.

5.1.4 Minimum drained weight

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

Whole Styles - - - - - - - - - - 50%

Halves Style - - - - - - - - - - 55%

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

6. 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:

6.1 Name of the food

6.1.1 The name of the product shall be either (a) "plums" accompanied by the colour "Yellow" or "Golden"1/, "Red" or "Purple", as appropriate, or by the specific name of the cultivars or (b) Greengage plums, Damson plums, Cherry plums, Mirabelle plums, for the appropriate cultivars specified in sub-section 1.1, except that the names "Greengages", "Damsons", "Mirabelles" need not be accompanied by the word "plums" in countries where its omission would not mislead or deceive the consumer.

6.1.2 The style, as appropriate, shall be declared as part of the name or in close proximity to the name:

(a) the style "Whole pitted", "Whole", or "Halved", as appropriate;

(b) the word "peeled", in the case of plums that are peeled.

6.1.3 When the packing medium is composed of water, or water and plum juice, 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"

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

"In Plum Juice" or "In (name of fruit) juice"

6.1.5 When the packing medium is composed of two or more fruit juices, which may include plum juice, 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".

1/ The term "Golden" applies to the English version only and is a permitted alternative to "Yellow" only in those countries where this term is used.

6.1.6 When sugars are added to plum juice or other 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)"

6.1.7 When sugars are added to water, or water and a single fruit juice (including plum juice) or water and two 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"

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

"Plum juice and water"
or
"(name of fruit) juice(s) and water"

6.1.9 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. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods. The methods referred to in 7.1, 7.2, 7.3, and 7.4 have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling

Sampling shall be in accordance with the Sampling Plans for Processed Fruits and Vegetables.

7.2 Determination of Drained Weight*

7.2.1 Definition*

7.2.2 Materials*

7.2.2.1 Specifications for circular sieves*

(a) - (b) - (c)

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* Methods of Analysis of AOAC-1970 - 32.001 and 32.002.

7.2.3 Procedure*

7.2.4 Calculation and Expression of Results*

7.3 Syrup measurements **

7.3.1 Procedure **

7.3.2 Calculation and Expression of Results **

7.3.3 Literature References **

7.4 Method for Determination of Water Capacity of Containers

7.4.1 Metal containers

7.4.1.1 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.

7.4.2 Glass containers

7.4.2.1 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.

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* Methods of Analysis of AOAC-1970 - 32.001 and 32.002.

** Methods of Analysis of AOAC-1970 - 31.011 (Uncorrected for Invert Sugar)

DRAFT STANDARD

FOR

CANNED RASPBERRIES

Advanced to STEP 8

1. DESCRIPTION

1.1 Product definition

Canned raspberries is the product (a) prepared from raspberry varieties conforming to the characteristics of Rubus idaeus L. or Rubus occidentalis L. which are reasonably whole, reasonably sound ripe fruit, and from which extraneous matter including calices and stems have been removed; (b) packed with water or other suitable liquid packing medium; 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 type

Any suitable variety of raspberry may be used.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Packing media

Canned raspberries may be packed in:

(a) Water - in which water is the sole packing medium;

(b) Fruit juice - in which raspberry juice, or any other compatible fruit juice, is the sole packing medium;

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

(d) Mixed fruit juices - in which two or more fruit juices, including raspberry, are combined to form the packing medium;

(e) With sugar(s) - any of the foregoing packing media (a) through (d) may have one or more of the following sugars added: sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup.

2.1.1 Classifications of packing media when sugars are added

(a) When sugars are added to raspberry juice or other fruit juices, the liquid media shall be not less than 15° Brix and they are classified on the basis of the cut-out strength as follows:

Lightly sweetened (name of fruit) juice - Not less than 15° Brix.
Heavily sweetened (name of fruit) juice - Not less than 20° Brix.

(b) When sugars are added to water or water and raspberry juice or water and 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 15° Brix.
Heavy Syrup - - - - - - - - - - - -	Not less than 20° Brix.

Optional Packing Media

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

Slightly Sweetened Water Water Slightly Sweetened Extra Light Syrup - - - -	Not less than 11° Brix but less than 15° Brix.
Extra Heavy Syrup - - - -	More than 26° Brix.

2.1.2 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.

2.2 Quality criteria

2.2.1 Colour

The colour of the product shall be normal for the varietal type, taking into consideration any added artificial colour.

2.2.2 Flavour

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

2.2.3 Texture

The raspberries shall have a reasonably uniform texture and shall not be excessively firm nor unreasonably soft.

2.2.4 Defects and allowances

Canned raspberries shall be substantially free from defects within the limits set forth as follows:

	Maximum limits
(a) Blemished berries (consisting of berries which are affected by wind rub, insects, disease or which are deformed to the extent that the appearance or eating quality is materially affected)	10% by weight of drained raspberries
(b) Crushed or broken berries (consisting of berries in which more than 50% of the drupelets are crushed, broken, detached, or otherwise damaged to the extent that the original conformation is destroyed)	25% by weight of drained raspberries
Total of the foregoing defects (a) and (b)	25% by weight of drained raspberries
(c) Extraneous plant material, (based on averages)	
(1) Stalks (stems) or parts thereof, each longer than 3 mm	2 pieces per 100 grams of drained raspberries
(2) Leaves, calices, or portions of any of these, or other similar harmless extraneous plant material	2 sq. cm per 100 grams of drained raspberries

2.2.5 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in sub-section 2.2.1 through 2.2.4 (except extraneous plant material which is based on an average), 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 2.2.5 when:

(a) for those requirements which are not based on averages -- 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 Processed Fruits and Vegetables; 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 have been endorsed or are subject to endorsement by the Codex Committee on Food Additives as indicated:

	Maximum Level of Use
Colouring matters	
Ponceau 4 R	Singly, or in combination -- 300 mg/kg
Erythrosine	(temporarily endorsed)

4. HYGIENE

4.1 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).

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

4.3 When tested in 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 be toxic.

5. WEIGHTS AND MEASURES

5.1 Fill of container

5.1.1 Minimum fill

The container shall be well filled with raspberries, 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. The water capacity of the container is the volume of distilled water at 20° C. which the sealed container will hold when completely filled.

5.1.2 Classification of "defective"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of sub-section 5.1.1 shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirements of sub-section 5.1.1 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.

5.1.4 Minimum drained weight

5.1.4.1 The drained weight of the product shall be not less than 37% of the weight of distilled water at 20° C. which the sealed container will hold when completely filled.

5.1.4.2 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.

6. LABELLING

In addition to Section 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:

6.1 The name of the food

6.1.1 The name of the product shall be "Raspberries".

6.1.2 In the case of raspberries other than red raspberries, the colour of the fruit, shall be included as part of the name or in close proximity to the name.

6.1.3 When the packing medium is composed of water, or water and raspberry juice, 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".

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

"In raspberry juice" or "In (name of fruit) juice".

6.1.5 When the packing medium is composed of two or more fruit juices, which may include raspberry juice, 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".

6.1.6 When sugars are added to raspberry juice or other 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)".

6.1.7 When sugars are added to water, or water and a single fruit juice (including raspberry juice) or water and two 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".

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

"Raspberry juice and water"
or
"(name of fruit) juice(s) and water"

6.2 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 Prepackaged Foods, except that water need not be declared.

6.3 Net contents

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

6.4 Name and address

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

6.5 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.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods. The methods referred to in 7.1, 7.2, 7.3 and 7.4 have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling

Sampling shall be in accordance with the Sampling Plans for Processed Fruits and Vegetables.

7.2 Determination of drained weight *

7.2.1 Definition *

7.2.2 Materials *

7.2.2.1 Specifications for circular sieves *

(a)
(b)
(c)

7.2.3 Procedure *

7.2.4 Calculation and Expression of Results *

7.3 Syrup measurements **

7.3.1 Procedure **

7.3.2 Calculation and Expression of Results **

7.3.3 Literature References **

* Methods of Analysis of AOAC- 1970 - 32.001 and 32.002.
** Methods of Analysis of AOAC- 1970 - 31.011 (Uncorrected for Invert Sugar).

7.4 Method for determination of water capacity of containers

7.4.1 Metal containers

7.4.1.1 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.

7.4.2 Glass containers

7.4.2.1 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.

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 - - - - Approximate halves or whole pitted or unpitted cherries of the species Prunus cerasus L. --

(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%	6% to 20%
		- - or - -
Cherries	2% to 6%	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 classifed 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:

Slightly Sweetened Water Water Slightly Sweetened Extra Light Syrup	Not less than 10° Brix but less than 14° Brix.
Extra Heavy Syrup	More than 22° Brix.

2.2.2 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 drained pineapple portion approximate 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 color 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:

	Maximum Limits (based on the weight of drained fruit)
(a) Blemished fruit pieces (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) Peel -- (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) Pit material -- (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) Small stems -- (based on averages) (such as capstems from grapes)	5 per kg
(e) Large stems -- (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 proportions 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

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:

	Maximum Level of Use
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)

		Maximum Level of Use
Natural flavours and their identical synthetic equivalents	- - - - - - -	Limited by Good Manufacturing Practice (Temporarily Endorsed)
Cherry Laurel Oil and/or Bitter Almond Oil	to flavour artificially coloured cherries only	10 mg/kg in the total product (Subject to Endorsement)
	- - - - - - - - - - - -	40 mg/kg in the total product (Endorsed)

Anti-oxidant

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

4. HYGIENE

4.1 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).

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

4.3 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 be toxic.

5. WEIGHTS AND MEASURES

5.1 Fill of container

5.1.1 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.

5.1.2 Classification of "defective"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 5.1.1 shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirement of 5.1.1 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.

5.1.4 Minimum Drained Weight

5.1.4.1 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.

5.1.4.2 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.

6. LABELLING

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

6.1 The name of the food

6.1.1 The name of the product shall be "Fruit Cocktail".

6.1.2 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".

6.1.3 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"

6.1.4 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"

6.1.5 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"

6.1.6 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)"

6.1.7 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"

6.1.8 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:

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

6.1.9 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.

6.2 List of ingredients

6.2.1 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 that water and fruit juice need not be declared and except as provided in 6.2.2.

6.2.2 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".

6.2.3 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients or elsewhere on the label in this manner:

"Ascorbic acid added to preserve colour".

6.3 Net contents

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

7.2 Ascertaining Proportions of Fruit **

7.2.1 Procedure

7.2.1.1 Determine drained weight and keep liquid and fruit separate;

7.2.1.2 Separate individual fruit ingredients, removing those fruits present in lesser amounts (such as cherries, pineapple, grapes);

7.2.1.3 Weigh the individual fruit ingredients to the nearest gram;

7.2.1.4 Record each fruit's weight and add all of these weights.

7.2.2 Calculation and Expressions of Results

Calculate the percentage of fruit proportions:

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

7.3 Determination of Drained Weight ***

7.3.1 Definition ***

7.3.2 Materials ***

7.3.2.1 Specifications for circular sieves ***

(a)
(b)
(c)

7.3.3 Procedure ***

7.3.4 Calculation and Expression of Results ***

7.4 Syrup measurements ****

7.4.1 Procedure ****

7.4.2 Calculation and Expression of Results ****

7.4.3 Literature References ****

** Text as given for "Ascertaining Proportions of Fruit" in Appendix IV of ALINORM 69/23.
(a) Do not use the original drained weight of the product before separation of the fruits.

*** Methods of Analysis of AOAC-1970 - 32.001 and 32.002

**** Methods of Analysis of AOAC-1970 - 31.011 (Uncorrected for Invert Sugar.

6.4 Name and address

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

6.5 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.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods. The methods referred to in 7.1, 7.2, 7.3, 7.4, and 7.5 have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling

Sampling shall be in accordance with the Sampling Plans for Processed Fruits and Vegetables.

7.1.1 Size of Sample Unit *

7.1.1.1 For ascertaining proportions of fruits and fill of container (including drained weight) the entire container shall be the sample unit.

7.1.1.2 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.

* Text as given for "Size of Sample Unit -- Method II" in Appendix IV of ALINORM 69/23, except that paragraphs 3, 3.1, and 3.2 have hereby been purposely omitted for this Draft Standard.

7.5 Method for Determination of Water Capacity of Containers

7.5.1 Metal containers

7.5.1.1 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.

7.5.2 Glass containers

7.5.2.1 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.

DRAFT STANDARD

FOR

CANNED MUSHROOMS

Advanced to STEP 8

1. DESCRIPTION

1.1 Product definition

Canned mushrooms is the product (a) prepared from fresh mushrooms conforming with the characteristics of cultivated varieties (cultivars) of the genus Agaricus (Psalliota), including A. bisporus, which mushrooms shall be in good condition and after cleaning and trimming shall be sound; (b) packed with water and/or juice exuding from the mushrooms or other suitable liquid medium, 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 Type

Any suitable variety (cultivar) of the genus Agaricus (Psalliota), including A. bisporus, may be used.

1.3 Colour Type

(a) White or cream.

(b) Brown.

1.4 Styles

(a) Buttons -- Whole mushrooms, with attached stems not exceeding 5 mm in length, measured from the bottom of the veil.

(b) Sliced Buttons -- Buttons cut into slices 2 mm to 6 mm thick, of which not less than 50% are cut parallel to the axis of the mushroom.

(c) Whole -- Whole mushrooms, with attached stems cut to a length not exceeding the diameter of the cap, measured from the bottom of the veil.

(d) Sliced or Sliced Whole -- Mushrooms cut into slices 2 mm to 8 mm thick, of which not less than 50% are cut parallel to the axis of the mushroom.

(e) Random Sliced -- Mushrooms cut into slices of varying thickness and in which the slices may deviate materially from cuts approximately parallel to the axis of the mushroom.

(f) Quarters -- Mushrooms cut into four approximately even parts.

(g) Stems and Pieces (Cut) -- Pieces of caps and stems of irregular sizes and shapes.

(h) Grilling -- Selected open-veiled mushrooms not exceeding 40 mm in diameter, with attached stems not exceeding the diameter of the cap, measured from the bottom of the veil scar.

(i) Other Optional Styles -- Other forms not specifically described in (a) through (h) above such as diced or chopped which are appropriately described on the label.

1.4.1 Tolerance for Buttons and Whole Style

An allowance of 10%, by count, of the units for the respective style may exceed the specified stem length.

1.5 Types of Pack

(a) Regular or natural pack -- in water, brine, and/or juice exuding from the mushrooms.

(b) In butter or butter sauce.

(c) In cream sauce.

(d) In sauce other than a butter or cream sauce.

(e) In vinegar.

(f) In oil.

(g) In wine.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Other ingredients

As appropriate for the respective type of pack:

(a) Water, salt, spices, seasonings, soyabean sauce, vinegar, wine.

(b) Sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup.

(c) Butter or other edible animal or vegetable fats or oils, including olive oil; milk, milk powder, or cream.

If butter is added, it must amount to not less than 3% of the final product.

(d) Starches -- natural (native), physically or enzymatically modified -- only when butter or other edible animal or vegetable fats or oils are ingredients.

(e) Wheat or corn flour.

2.2 Quality Criteria

2.2.1 Colour

(a) The mushroom portion of the product shall have normal colour characteristics of the variety of the canned mushrooms. Canned mushrooms of special types and containing special permitted ingredients shall be considered of characteristic colour when there is no abnormal discoloration for the respective ingredients used.

(b) The liquid medium in "Regular or Natural pack" shall be either clear or slightly turbid and yellow to light brown in colour.

2.2.2 Flavour

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

Canned mushrooms with special ingredients or sauces shall have the flavour characteristic of that imparted by the mushrooms and the other substances used.

2.2.3 Texture and Character

The mushrooms in the "Regular or Natural Pack" shall be firm and substantially intact.

In the styles of "Buttons" and "Whole" mushrooms, not more than 10% by count of the mushrooms may have caps which show total or complete breakage of the veil.

In the styles of "Buttons" and "Whole" and "Grilling" mushrooms 5% by count of the mushroom units may be detached caps or stems.

2.2.4 Defects

The canned mushrooms (a) may contain no more than a trace of soil, sand, grit, or any other extraneous matter, whether of mineral or organic origin; and (b) shall be reasonably free from spotted or otherwise damaged mushrooms.

2.2.5 Classification of "defectives".

A container that fails to meet one or more of the applicable quality requirements, as set out in sub-sections 2.2.1 through 2.2.4 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 2.2.5, 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 Processed Fruits and Vegetables.

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 or have been endorsed or temporarily endorsed or acted upon by the Codex Committee on Food Additives, as indicated:

		Maximum Level of use	
(a)	Ascorbic acid	Limited by Good Manufacturing Practice	(Endorsed)
(b)	Citric acid	Limited by Good Manufacturing Practice	(Endorsed)
(c)	Monosodium Glutamate	Not limited	(temporarily endorsed)
(d)	Colouring Matter		
	Caramel -- for use in sauces	Limited by Good Manufacturing Practice	(temporarily endorsed)

(e)	Calcium disodium EDTA (Calcium disodium ethylenediaminetetraacetate)	200 mg/kg	(endorsed)

(f) Modified starches, Vegetable gums, Alginates, Propylene glycol alginate -- to be used only when butter or other edible animal or vegetable fats or oils are used as ingredients -- as follows:

Maximum level of use -- 1% m/m singly or in combination

Modified Starches

Acid-treated starches Alkali-treated starches Bleached starches Distarch, phosphate (sodium trimetaphosphate treated) Distarch phosphate, phosphated Monostarch phosphate	(Endorsed)
Starch acetate Starch, hydroxypropyl Distarch, adipate, acetylated Distarch glycerol, hydroxypropyl Oxidized starches	(Temporarily Endorsed)
Starch sodium succinate	(Subject to Endorsement)
Distarch phosphate (phosphorus oxychloride treated)	(Temporarily Endorsed)
Distarch phosphate, acetylated	(Temporarily Endorsed)
Distarch phosphate, hydroxypropyl	(Subject to Endorsement)
Distarch glycerol, acetylated	(Temporarily Endorsed)
Distarch glycerol	(Temporarily Endorsed)

Vegetable gums ------(Temporarily endorsed)

- Arabic gum
- Carrageenan
- Furcellaran
- Guar gum

Vegetable gums ------(Subject to endorsement)

- Gum tragacanth
- Carob bean (Locust bean) gum
- Pectin

Alginates ----------(Temporarily endorsed)

(Ca, K, Na NH_4)

Propylene glycol alginate --------(Temporarily endorsed)

4. HYGIENE

4.1 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).

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

4.3 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 substance originating from micro-organisms in amounts which may be toxic.

4.4 The product shall have received a processing treatment sufficient to destroy all spores of Clostridium botulinum.

5. WEIGHTS AND MEASURES

5.1 Fill of Container

5.1.1 Minimum Fill

The container shall be well filled with mushrooms 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.

5.1.2 Classification of "Defectives"

A container that fails to meet the requirements for minimum fill (90 percent container capacity) of 5.1.1 shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirements of 5.1.1 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.

5.1.4 Minimum Drained Weight

5.1.4.1 Regular packs, vinegar, wine, oil packs

The drained weight of the product shall be not less than 53% of the weight of distilled water at 20° C. which the sealed container will hold when completely filled.

5.1.4.2 Sauce packs

The drained mushroom portion, after washing off the sauce or liquid, shall be not less than 27-1/2% of the total product weight.

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

6. 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:

6.1. The name of the food

6.1.1 The name of the product shall be "Mushrooms".

6.1.2 The following shall be included as part of the name or in close proximity to the name:

6.1.2.1 The style --

"Buttons", "Sliced Buttons", "Whole", "Sliced", or "Sliced Whole", "Random Sliced", "Quarters", "Stems and Pieces (Cut)", "Grilling", "Diced" and "Chopped", as appropriate.

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

6.2 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 Prepackaged Foods, except that water need not be declared.

6.3 Net contents

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

6.4 Name and address

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

6.5 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.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods. The methods referred to in 7.1, 7.2, 7.3 and 7.4 have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling

Sampling shall be in accordance with the Sampling Plans for Processed Fruits and Vegetables.

7.2 Determination of Drained Weight *

7.2.1 Definition *

7.2.2 Materials *

7.2.2.1 Specifications for circular sieves *

(a) - (b) - (c)

7.2.3 Procedure *

7.2.4 Calculation and Expression of Results *

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*Methods of Analysis of AOAC-1970 - 32.001 and 32.002; shall also apply to "Oil Packs".

7.3 Determination of Washed Drained Weight **

7.3.1 Definition**

Washed drained weight expresses % solid contents after washing with hot water, as determined by the procedure described below.

7.3.2 Materials **

7.3.2.1 Specifications for circular sieves

/ Fine mesh U.S. sieve No. 50 7 (a) 20 cm (8 inches) diameter.

7.3.3 Procedure **

7.3.3.1 Weigh the unopened can.

7.3.3.2 Open the can and wash the contents on to a tared fine mesh sieve.

7.3.3.3 Wash the contents of the sieve under the running cold water and then wash with running hot water until free of adhering *** substances.

7.3.3.4 Spread the mushrooms after washing over the bottom of the sieve and drain for 5 minutes and then weigh.

7.3.3.5 Weigh the empty dried can and determine the net contents (or total product weight).

7.3.4 Calculation and Expression of Results **

Calculate the % drained weight on the net contents (or total product weight).

(a) To be replaced by the corresponding ISO sieve.

** Text the same as given for "Determination of Washed Drained Weight" in Appendix IV of ALINORM 69/23, but no longer applies to "Oil packs"; and

*** except the word "soluble" is to be replaced by the word "adhering".

7.4 Method for Determination of Water Capacity of Containers

7.4.1 Metal containers

7.4.1.1 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.

7.4.2 Glass containers

7.4.2.1 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.

DRAFT STANDARD

FOR

CANNED ASPARAGUS

Advanced to STEP 8

1. DESCRIPTION

1.1 Product Definition

Canned Asparagus is the product (a) prepared from the edible portion of stalks of varieties of the asparagus plant conforming to the characteristics of Asparagus officinalis L., and may be peeled or unpeeled; (b) packed with water or other suitable liquid medium and may contain 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 Styles

(a) Long Shoots or Long Spears -- consist of the head and adjoining portion of the stalk not more than 18 cm, but not less than 15 cm in length.

(b) Shoots or Spears -- consist of the head and adjoining portion of the stalk less than 15 cm, but not less than 10.5 cm in length.

(c) Tips or Points -- consist of the head and ajoining portion of the stalk less than 10.5 cm, but not less than 4 cm in length.

(d) Cuts and Heads or Cut Spears -- consist of stalks cut transversely into pieces with and without heads, not more than 6 cm, but not less than 2 cm in length. At least 20%, by count, of pieces with heads must be present, except that when the spears are cut into pieces of 3 cm or less in length, at least 10%, by count, of pieces with heads must be present.

(e) Cuts -- consist of portions of stalks cut transversely into pieces not more than 6 cm in length. Pieces with heads may be present.

1.2.1 Allowances for Styles

The length requirements for the styles listed in 1.2 will be considered to be met when:

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

(2) the length of the units is reasonably uniform.

"Reasonably uniform", based on sample average, means for:

(a) Long Shoots; Shoots; Tips -- at least 75%, by count, of the units are within ± 1 cm of the predominant length; and at least 95%, by count, of the units are within ± 2 cm of the predominant length;

(b) Cuts and heads; Cuts -- at least 75%, by count of the units are within ± 1 cm of the predominant length; and at least 90%, by count, of the units are within ± 2 cm of the predominant length.

1.3 Colour Types

(a) White -- units are white, cream or yellowish white; not more than 20%, by count, of the units may possess blue, green, light green, or yellowish green tips.

(b) White and Blue Tipped; White and Green Tipped -- "Long Shoots", "Shoots" and "Tips" which are white, cream, or yellowish-white may have blue, green, light green or yellowish-green heads and adjacent areas but not more than 25%, by count, of the units may have such color that extends more than one-half the length of the unit.

(c) Green -- units are green, light green, or yellowish-green; not more than 20%, by count, of the units may possess a white, cream, or yellowish-white colour of the bottom portion of the stalk, but such colour shall not extend more than one-half the length of the unit.

(d) Mixed -- consists of a mixture of white, cream, yellowish-white, blue, green, light green, or yellowish-green units.

1.4 Designations in accordance with size

Long Shoots; Shoots; Tips -- may be designated according to size in the following manner:

Single Sizes	Peeled Asparagus	Unpeeled Asparagus
"Small"	up to 8 mm, inclusive	up to 10 mm, inclusive
"Medium"	over 8 mm, and up to 13 mm, inclusive	over 10 mm, and up to 15 mm, inclusive
"Large"	over 12 mm, and up to 18 mm, inclusive	over 15 mm, and up to 20 mm, inclusive
"Extra large"	over 18 mm	over 20 mm

BLEND OF SIZES or
Assorted Sizes - - - - a mixture of two or more single sizes.

1.4.1 Definition of "diameter"

The diameter of a long shoot, shoot, or tip is the maximum diameter at the thickest part of the unit, measured at right angles to the longitudinal axis of the unit.

1.4.2 Compliance with "single size" designations

(a) When the product is declared, presented or offered as conforming to the single size designations in 1.4 - other than "Blend of Sizes" or "Assorted Sizes" - the sample unit shall conform to the diameter specified for each single size, except that not more than 25 percent, by count, of all the units in the container may belong to adjacent size group(s).

(b) Any sample unit or container that exceed the 25 percent allowance in the foregoing sub-paragraph (a) will be considered a "defective" for Size classification.

(c) A lot will be considered as meeting the criteria for a Single Size Designation when the number of defectives, as defined in sub-paragraph (b) does not exceed the acceptance number (c) of the appropriate sampling plan (AQL 6.5) in the Sampling Plans for Prepackaged Foods.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Basic ingredients

Asparagus and liquid packing medium appropriate to the product and other ingredients as follows:

2.1.1 Other permitted ingredients

(a) Salt, sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup, vinegar.

(b) Butter or other edible animal or vegetable fats or oils. If butter is added, it must amount to not less than 3% of the final product.

(c) 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.

2.2.2 Packing Medium

The liquid packing medium shall be practically clear except as it may be affected by other ingredients and only a small amount of sediment or parts of asparagus may be present.

2.2.3 Flavour

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

Canned asparagus with special ingredients shall have the flavour characteristic of that imparted by the asparagus and the other substances used.

2.2.4 Texture

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

2.2.5 Defects and Allowances

	Limitations
(a) Shattered heads and other shattered asparagus material (consisting of broken or shattered pieces to the extent that the appearance of the product is seriously affected; and includes pieces less than 1 cm in length)	The product shall be reasonably free from such material
(b) Extraneous matter (such as sand, grit, or earthy material)	The product shall be practically free from such material
(c) Units with Peel (in Peeled Asparagus only) (those units with unpeeled areas which seriously affect the appearance or edibility of the unit)	10%, by count
(d) Hollow units (consisting of units that are hollow to the extent the appearance of the unit is seriously affected)	10%, by count
(e) Misshapen units (includes shoots or heads badly crooked or any unit that is seriously affected in appearance by doubles or other malformations)	10%, by count
(f) Damaged units (includes discolouration, mechanical injury, disease, or damage by other means to the extent that the appearance or edibility of the unit is seriously affected)	10%, by count

Total, of all the defects in (d), (e), (f) for these styles:

Long Shoots	15%. Count
Shoots	15%, by count
Tips	15%, by count
Cuts and Heads	20%, by count
Cuts	25%, by count

2.2.6 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in sub-sections 2.2.1 through 2.2.5, shall be considered a "defective".

2.2.7 Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in sub-section 2.2.6, when the number of "defectives", as defined in sub-section 2.2.6, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL 6.5) in the Sampling Plans for Processed Fruits and Vegetables.

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 or have been endorsed or temporarily endorsed or acted upon by the Codex Committee on Food Additives, as indicated:

		Maximum level of use	
(a)	Monosodium glutamate	Not limited	(Temprarily endorsed)
(b)	Stannous Chloride -- only for asparagus in glass or in fully enamel-lined (lacquered) cans	25 mg/kg calculated as Sn	(Endorsed)
(c)	L-Ascorbic Acid		(Endorsed)
(d)	Acidifying Agents		
	Acetic acid Citric acid Malic acid L-Tartaric acid	Limited by Good Manufacturing Practice	(Endorsed)

(e) Modified starches, Vegetable gums, Alginates, Propylene glycol alginate -- to be used only when butter or other edible animal or vegetable fats or oils are used as ingredients -- as follows:

Maximum level of use -- 1% m/m singly or in combination

Modified Starches -- (Endorsed)

Acid-treated starches
Alkali-treated starches
Bleached starches
Distarch, phosphate (sodium trimetaphosphate treated)
Distarch phosphate, phosphated
Monostarch phosphate

Modified Starches -- (Not endorsed)

Starch sodium succinate - - - (Subject to Endorsement)
Distarch phosphate (phosphorus oxychloride treated) - - - - (Temporarily Endorsed)
Distarch phosphate, acetylated - - - - - (Endorsed)
Distarch phosphate, hydroxypropyl - - (Subject to Endorsement)
Distarch glycerol, acetylated - - (Temporarily Endorsed)
Distarch glycerol - - (Temporarily Endorsed)

Modified Starches -- (Temporarily endorsed)

Starch acetate
Starch, hydroxypropyl
Distarch, adipate, acetylated
Distarch glycerol, hydroxypropyl
Oxidized starches

Vegetable gums ------(Temporarily endorsed)

Arabic gum
Carragcenan
Furcellaran
Guar gum

Vegetable gums -- (Subject to endorsement)

Gum tragacanth
Carob bean (Locust bean) gum
Pectin

Alginates ----------(Temporarily endorsed)

(Ca, K, Na NH_4)

Propylene glycol alginate --------(Temporarily endorsed)

4. CONTAMINANTS

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

Total tin, in metal containers where tin is exposed:

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 micro-organisms in amounts which may be toxic.

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 asparagus 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 requirements 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 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 Processed Fruits and Vegetables.

6.1.4 Minimum Drained Weight

6.1.4.1 The drained weight of the product shall be not less than the following percentages, calculated on the basis of the weight of distilled water at 20 degrees C which the sealed container will hold when completely filled:

	Peeled Asparagus
Long Shoots	60%
All other styles	58%

	Unpeeled Asparagus
Long Shoots and Shoots	57%
All other styles	55%

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

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 "Asparagus"; and the word "Peeled" or "Unpeeled", as appropriate, may be declared depending upon national legislation.

7.1.2 The following, as appropriate, shall be included as part of the name or in close proximity to the name:

7.1.2.1 The style --

"Long Shoots" or "Long Spears";
"Shoots" or "Spears";
"Tips" or "Points";
"Cuts and heads" or "Cut Spears";
"Cuts".

7.1.2.2 The colour --

"White";
"White and Blue Tipped";
"White and Green Tipped";
"Green";
'Mixed Colours".

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

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 Prepackaged Foods, except that water need not be declared.

7.3 Net contents

The net contents shall be declared by weight in either the metric ("Système 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.

7.6 Optional declarations

7.6.1 Size representation -- In styles of Long Shoots, Shoots, Tips

7.6.1.1 If these size names comply with the applicable requirements of this standard, they may be stated as: "Small", "Medium", "Large", "Extra Large", "Blend of Sizes", or "Assorted Sizes", as appropriate.

7.6.1.2 The number of units present in the container may be shown by a range of approximate count, e. g. "approximately ___ to ___ Spears".

8. METHODS OF ANALYSIS AND SAMPLING

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 Sampling Plans for Processed Fruits and Vegetables.

8.2 Determination of Drained Weight *

8.2.1 Definition *

8.2.2 Materials *

8.2.2.1 Specifications for circular sieves *

(a)
(b)
(c)

8.2.3 Procedure *

8.2.4 Calculation and Expression of Results *

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 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.

* Methods of AOAC-1970 - 32.001 and 32.002.

DRAFT STANDARD
FOR
RAISINS
Advanced to STEP 8

1. SCOPE

This standard applies to dried grapes of varieties conforming to the characteristics of Vitis vinifera L. which have been suitably treated or processed and which are offered for direct consumption as raisins or Sultanas. It also covers raisins packed in bulk containers which are intended for repacking into consumer size containers. This standard does not include a similar dried vine fruit known as dried currants.

2. DESCRIPTION

2.1 Product Definition

Raisins is the product prepared from the sound dried grapes of the varieties conforming to the characteristics of Vitis vinifera L. (but excluding currant types) processed in an appropriate manner into a form of marketable raisin with or without coating with suitable optional ingredients.

The dried grapes or raisins:

(1) shall be properly cleaned, whether washed or unwashed;

(2) shall be stemmed except for the form of cluster raisins;

(3) shall be cap-stemmed except for Malaga Muscatel type;

(4) may be dipped (unbleached) in an alkaline lye and oil solution as an aid to drying;

(5) may be bleached by subjecting to bleach treatment by chemical means and are further processed by drying;

(6) may have seeds removed mechanically in seed bearing types;

(7) shall be reduced in moisture to a level that will assure preservation of the product; and

(8) may be coated with one or more of the ingredients or sugars specified in 3.1 of this standard.

2.2 Type Groups

Seedless ------- prepared from grapes that are naturally seedless or almost seedless.

Seed-bearing --- prepared from grapes that possess seeds, which may or may not be removed in processing.

2.3 Styles (or Forms)

Non-Seeded (or Unseeded) ---- with seeds not removed in seed-bearing types.

Seeded ---------- with seeds removed mechanically in seed-bearing types.

Clusters --------- with main bunch stem attached.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Permitted Ingredients

Raisin oil and other edible vegetable oils such as to permit free-flowing raisins, sucrose, invert sugar, dextrose, dried glucose syrup, and honey as may be appropriate to the product.

3.2 Quality Criteria

3.2.1 Maturity Characteristics

Raisins shall show development characteristics of raisins prepared from properly matured grapes, as indicated by proper colour and texture for the type, and such raisins shall include a substantial portion of berries that are fleshy and of high sugar content.

3.2.2 Minimum Quality Requirements

Raisins shall be prepared from such materials and under such practices that the finished product shall possess normal colour, flavour, and maturity characteristics for the respective type and in addition comply with the following requirements:

(a) Moisture Content -- Maximum

Malaga Muscatel type ----------	31%
Seeded (seeds removed) style ----------	19%
All other styles and/or types ----------	18%

(b) Mineral Impurities -- may not be present to the extent that the eating quality or usability is materially affected (See also 6.2 of this standard)

(c) Other Defects ------- substantially free from stems, extraneous plant material and damage.

3.2.3 Definitions of Defects

(a) Piece of stem -- Portion of the branch or main stem.

(b) Cap-stem ------- Small woody stems exceeding 3 mm in length which attaches the grape to the branch of the bunch and whether or not attached to a raisin.

(Cap-stems are not considered a defect in "Unstemmed" Malaga Muscatel type raisins. In considering allowances for cap-stems on a "percentage by count" basis, cap-stems that are loose are counted as being on a raisin).

(c) Immature or Undeveloped Raisins - Refers to raisins that:

(a) are extremely light-weight berries, lacking in sugary tissue indicating incomplete development,

(b) are completely shriveled with practically no flesh, and

(c) may be hard.

(d) Damaged Raisins - Raisins affected by sunburn, scars, mechanical injury, or other similar means which seriously affect the appearance, edibility, keeping quality, or shipping quality.

In "Seeded" forms, normal mechanical injury resulting from normal seeding operations is not considered "damage".

In "Seedless" type, normal mechanical injury resulting from removal of cap-stems is not considered "damage".

(e) Sugared Raisins - Raisins with external or internal sugar crystals which are readily apparent and seriously affect the appearance of the raisin. Raisins that are sugar-coated or to which sugar is added intentionally are not considered "sugared raisins".

(f) Seeds (in seeded forms) - Substantially whole, fully developed seeds which have not been successfully removed during processing of seeded forms.

3.2.4 Allowances for Defects

Raisins shall not contain excessive defects (whether or not specifically defined or as allowed in this standard).

Certain common defects as defined in paragraph 3.2.3 may not exceed the limitations specified in paragraph 3.2.4.

DEFECTS	SEEDLESS TYPES	SEED-BEARING TYPES
	- - - - Maximum - - - -	
Pieces of stem (in stemmed forms)	2 per kg	2 per kg
Capstems (except in "Unstemmed" Malaga Muscatel type)	50 per 500 grams	25 per 500 grams
Immature or undeveloped	6% by weight	4% by weight
Damaged	5% by weight	5% by weight
Sugared	15% by weight	15% by weight
Seeds (in seeded forms)	--	20 per 500 grams

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 by the Codex Committee on Food Additives.

	Maximum level of use
Sulphur Dioxide (applies to Bleached Raisins only)	1,500 mg/kg (Subject to endorsement)
Mineral Oil (Food grade) (See attachment 1 of this Appendix for specifications) 1/	5 g/kg (Endorsed)
Sorbitol	5 g/kg (Subject to endorsement)

5. CONTAMINANTS

The relevant tolerances contained in the Recommended International Tolerances for Pesticide Residues (CAC/RS 35-1970) and in ALINORM 71/24, Appendix II, shall apply.

1/ The Joint FAO/WHO Expert Committee on Food Additives at its 14th Session held in June 1970, elaborated specifications for food grade mineral oil, having taken into account the specifications contained in the Attachment I of this Appendix.

6. HYGIENE

6.1 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 Dried Fruits recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 3-1969).

6.2 To the extent possible in good manufacturing practice the product shall be free from stones and other objectionable matter.

6.3 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 be toxic.

7. WEIGHTS AND MEASURES

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product.

8. LABELLING

8.1 The name of the food. (See also optional labelling in 8.6)

8.1.1 The name of the product is "Raisins"; or it is "Sultanas" in those countries where the name Sultana is used to describe certain types of Raisins.

8.1.2 If the raisins are bleached, part of the name shall include a meaningful term as customarily understood and used in the country of sale, such as: "Bleached", "Golden", or "Golden Bleached".

8.1.3 If raisins are of the Seed-bearing type, the name of the food shall show, as appropriate:

(a) "Seeded" or "With Seeds Removed".

(b) "Non-Seeded", "Unseeded", "With Seeds", or similar description indicating that the raisins are naturally not seedless, except in cluster form and Malaga Muscatel type.

8.1.4 If raisins are in cluster form, the name of the food shall show "Clusters", or a similar appropriate description.

8.1.5 If raisins intentionally do not have capstems removed, the name of the food shall show "Unstemmed", or a similar appropriate description, except in cluster form and Malaga Muscatel type.

8.1.6 Where a characteristic coating, or similar treatment, has been used, appropriate terms shall be included as part of the name of the food or in close proximity to the name; e.g., "Sugar Coated", "Coated with _ _ X _ _".

8.2 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 Prepackaged Foods.

8.3 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.

8.4 Name and address

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

8.5 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.

8.6 Optional Declarations

8.6.1 Raisins may be described as "Natural" when they have not been subjected to dipping in an alkaline lye and oil solution as an aid to drying nor subjected to bleach treatment.

8.6.2 Raisins may be described as "Seedless" when they are of that type.

8.6.3 The product name may include the variety or varietal type group of raisins.

9. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods. The method referred to in 9.2.1 has been endorsed by the Codex Committee on Methods of Analysis and Sampling. The methods in 9.2.2, 9.2.3, 9.2.4, and 9.2.5 are subject to further consideration and/or endorsement by the Codex Committee on Methods of Analysis and Sampling.

9.1 Sampling

(SAMPLING PLANS TO BE DEVELOPED)

9.2 Test Procedures

9.2.1 Moisture

See Annex I of Appendix VII.

Alternative Method - "Moisture in Dried Fruits"

(Reference: Official Methods of Analysis of the Association of Official Analytical Chemists, 11th Edition, 22.012 and 22.003 (c)).

9.2.2 Mineral Impurities (Sand test)

See Annex II of Appendix VII.

9.2.3 Sulphur Dioxide

"Colorimetric Method -- applicable to dried fruit"
(Reference: Official Methods of Analysis of the Association of Official Analytical Chemists, 11th Edition, 20.093)

9.2.4 Mineral Oil

See Annex III of Appendix VII.

9.2.5 Sorbitol

See Annex IV of Appendix VII.

"GLC of Sorbitol in Bakery Products, Wines, and Vinegars"
(Reference: Journal of the Association of Official Analytical Chemists, Vol. 51, No. 6, November 1968, p. 1272-1274).

PROPOSED

Specifications for Liquid, Semi-Liquid and Solid Mineral Hydrocarbons

1. Liquid mineral hydrocarbon -

(a) shall be a transparent, almost colourless and tasteless mixture of liquid mineral hydrocarbons;

(b) shall have an ultra-violet extinction (otherwise called absorbance) over the range of 240.280 millimicrons not greater than 0.04 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say, $E\ \frac{0.1\%}{1\ cm}$ shall not be greater than 0.04 where $E=\log_{10}(1o/1)$ and 1o and 1 are the intensities of the incident radiation and of the transmitted radiation respectively; and

(c) shall comply with the tests for acidity or alkalinity, carbonisable substances, solid paraffins and sulphur compounds given in the monograph for Liquid Paraffin in the British Pharmacopocia 1963.

Specifications for semi-liquid mineral hydrocarbon

2. Semi-liquid mineral hydrocarbon -

(a) shall be a white translucent unctuous mixture, barely fluorescent in daylight, of semi-liquid mineral hydrocarbons;

(b) shall contain not more than 0.1 per cent by weight of sulphated ash;

(c) shall have an ultra-violet extinction (otherwise called absorbance) at 290 millimicrons not greater than 1.0 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre. that is to say, $E\ \frac{0.1\%}{1\ cm}$ shall not be greater than 1.0 where $E=\log_{10}(1o/1)$ and 1o and 1 are the intensities of the incident radiation and of the transmitted radiation respectively; and

(d) shall comply with the tests for acidity or alkalinity and sulphur compounds given in the monograph for Liquid Paraffin in the British Pharmacopocia 1963.

Specifications for solid mineral hydrocarbon other than any solid mineral hydrocarbon used or intended for use in chewing compounds

3. Solid mineral hydrocarbon other than any solid mineral hydrocarbon used or intended for use in any chewing compound --

(a) shall be an almost odourless and tasteless mixture of solid mineral hydrocarbons;

(b) shall contain not more than 0.1 per cent, by weight of sulphated ash;

(c) shall comply with the test for acidity or alkalinity given in the monograph for Liquid Paraffin in the British Pharmacopocia 1963;

(d) shall comply with the test for sulphur compounds given in the monograph referred to in the preceding sub-paragraph of this Schedule: Provided that such test shall be carried out at 70° C. or at 5° C. above the congealing point, of the solid mineral hydrocarbon, whichever is the higher;

(e) shall comply with the requirements specified in one of the following sub-paragraphs, namely --

(i) shall have been tested, before being used in the composition or preparation of any food, for the presence of polycyclic hydrocarbon by the method described in Part II of this Schedule with the result described in paragraph 6 of the said Part II and if such solid mineral hydrocarbon is tested subsequently by the said method, shall give the said result; or

(ii) have a viscosity at 99° C. not greater than 7.0 centistokes and an ultra-violet extinction (otherwise called absorbance) at 290 millimicrons not greater than 0.04 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say, $E\ \frac{0.1\%}{1\ cm}$ shall not be greater than 0.04 where $E=\log_{10}$ (lo/l) and lo and l are the intensities of the incident radiation and of the transmitted radiation respectively; or

(iii) have a viscosity at 99° C. not less than 10.0 centistokes and an ultra-violet extinction (otherwise called absorbance) at 290 millimicrons not greater than 1.0 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say $E\frac{0.1\%}{1\ cm}$ shall not be greater than 1.0 where $E=\log_{10}$ (lo/l) and lo and l are the intensities of the incident radiation and of the transmitted radiation respectively.

1/MOISTURE DETERMINATION BY ELECTRICAL CONDUCTANCE METHOD (Draft Standard PFV 71/6-12)

Equipment

Dried Fruit Moisture Tester complete with all raisin charts and electrode tester.

Universal #71 or #72 grinder (16 tooth head) -- either hand or mechanically driven grinder.

Thermometer -- 0° to 120° F.

ELECTRICAL CIRCUIT DIAGRAM FOR DRIED FRUIT MOISTURE TESTER

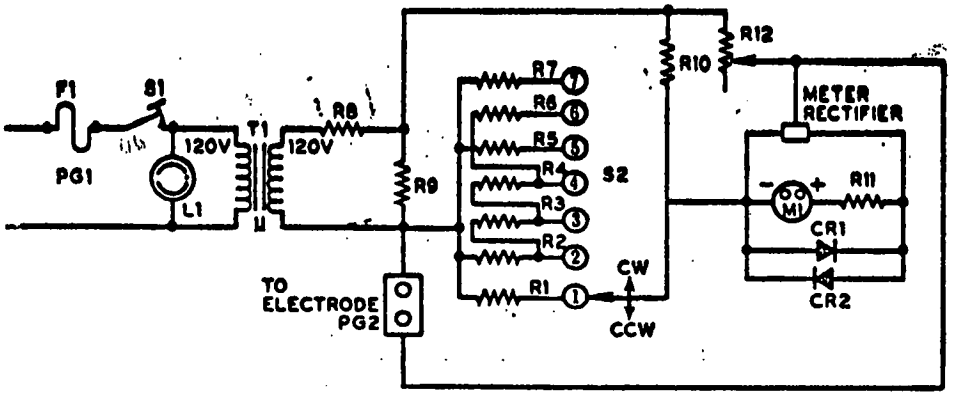
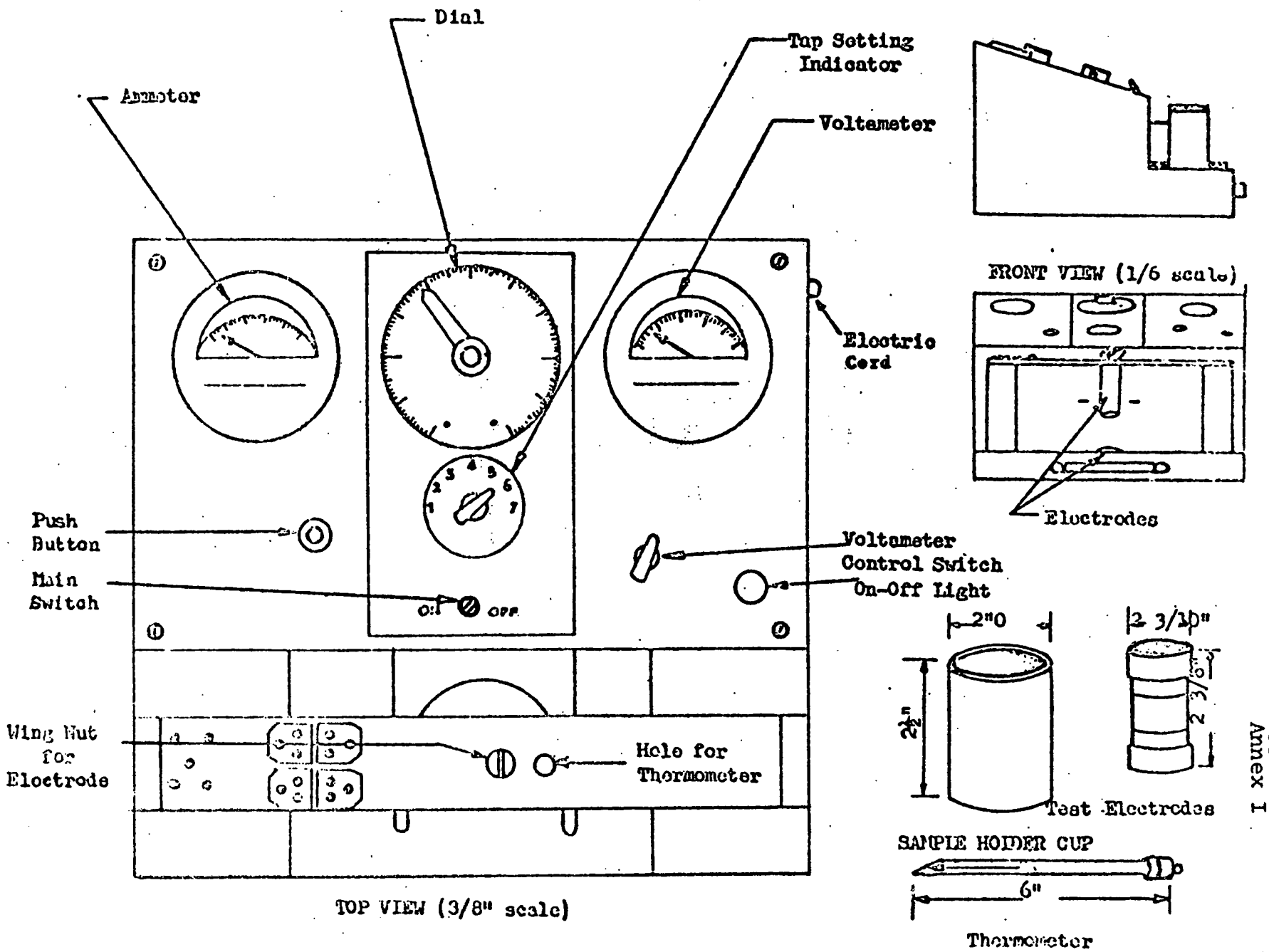


FIG. 2—Electrical circuit diagram for dried fruit moisture tester.

Explanation:

Item	Item	Value	Tolerance, %	Power Rating, w
F1—Fuse 3AG 2A 125 v	R1	10K	1	1
S1—Push-button switch	R2	200K	1	½
L1—Neon light	R3	1K	1	1
T1—Isolating transformer 1-1, 120 v, 50 ma	R4	100K	1	½
PG1—Plug, 120 v	R5	40K	1	½
PG2—Plug to electrode	R6	20K	1	½
M1—Microammeter rectifier, type 0-100 ma-meter rectifier	R7, R10	3K	1	1
CR1—Rectifier F4 (5M2483)	R8	2.5K	—	10
CR2—Rectifier F4 (5M2483)	R9	5K	—	10
S2—2 Wafer 7-point tap switch	R11	1.5K	10	½
	R12	10K	±5	(wire-wound)

DRIED FRUIT MOISTURE TESTER



Procedure

1) Grind a representative sample three times through a Universal #71 food chopper, using the cutter which has 16 teeth. Then knead by hand until the sample is thoroughly mixed.

2) Pack the ground sample into the bakelite cylinder (containing wax paper liner) making certain that it is packed tightly around the bottom electrode. Fill the cylinder level full.

3) Lower the tap electrode and press it into the sample until the tap electrode level is stopped by the post. Insert the thermometer in the hole to a depth about halfway down in the cup.

4) Plug the machine into a 110 Volt AC outlet and turn on main switch. Adjust the voltmeter control switch (the right-hand knob under the voltmeter) until the voltmeter reads 10 volts or less.

5) Select the proper tap setting by referring to the table appropriate for the type of fruit being tested, as -

Table 22:B1 for natural or low moisture fruit - under 15% use tap setting 6

Table 22:B2 for processed or high moisture fruit - over 15% use tap setting 3

6) Then make a preliminary setting of Dial. If the sample seems moist, turn the Dial to about 80. If the sample seems dry, turn the Dial to about 40. This is to prevent "bumping" the ammeter.

7) Carefully depress the push-button switch and watch the microammeter. If the Dial setting is near the correct range the ammeter will read on the scale. If the ammeter pointer goes completely to 100, release the push-button immediately. Make a new setting of the Dial and try again. The operator will soon learn to judge by the feel of the fruit about where to set the Dial.

8) When the ammeter reads on scale, keep the push-button down and turn the Dial so the ammeter pointer moves toward zero (the left). When the zero point is reached, the needle will start back up if the Dial is moved in the same direction. Adjust the Dial as near this zero or turning point as possible.

9) Then, and not until then, turn the voltmeter control switch completely to the right. With the push-button down, make the fine adjustment of the Dial to the ammeter zero or turning point. When this turning point is reached, read the Dial. Then read the thermometer.

10) Refer to the appropriate table for Raisins and based upon the Dial readings and temperature determine the moisture content as in Step 11.

11) Find the correct temperature column on the table and follow down this column until a number nearest to the Dial reading is reached. Moisture percentage will be found in the column to the extreme left.

Example

Dial reading - 76
Temperature - 74°F.
Tap setting - 3
Table - 22:B2

Locate the column headed by 74°F. and follow down to the conductance reading closest to a Dial reading of 76. Note that a reading of 75.2 corresponds to a moisture content of 18.5% whereas a reading of 78.4 corresponds to a moisture content of 19.0%. By interpolation a reading of 76 would correspond to a moisture content of 18.6%

Checking Moisture Machine

The machine must be checked daily to verify proper calibration and operation as follows:

1) Place the "test electrode" in the machine in place of the sample of ground fruit.

2) Operate the machine in the same manner as indicated above for the fruit sample.

3) Check the readings for each tap with the readings on the test electrode.

4) If the machine does not read properly it is in need of adjustment or repair.

Table 22.021. Conductance-temperature correlation for natural or low moisture raisins; switch setting, top 5

% Moisture	Conductance readings at temperature (°F):																								
	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102
9.0																9.0	15.0	21.0	25.0	29.0	33.0	36.0	39.0	42.0
9.5														4.0	11.0	17.5	22.5	27.0	32.5	37.0	40.5	44.0	47.0	49.0
10.0							1.0	7.0	13.5	17.5	23.0	28.5	34.0	38.0	41.5	45.5	49.0	52.0	54.5	57.0	59.0	61.5		
10.5						7.5	13.0	18.0	24.0	29.5	35.0	40.0	44.5	49.0	51.5	54.0	57.0	60.0	62.0	64.0	66.0	68.0	70.0		
11.0					8.5	16.0	22.5	28.0	34.0	39.0	44.0	48.5	53.0	56.0	59.0	61.5	64.0	66.0	68.5	70.5	72.5	73.8	75.3	76.8
11.5			9.0	18.0	26.0	31.0	36.0	42.0	47.5	51.5	55.5	58.7	62.5	64.7	67.5	69.5	71.0	73.0	75.0	76.5	78.3	79.6	81.0	82.5
12.0			23.5	30.5	37.5	42.5	47.0	52.0	56.5	60.0	63.3	66.5	69.0	71.0	73.0	74.5	76.0	78.0	79.7	81.0	82.0	83.8	85.2	86.5
12.5	16.5	27.0	34.5	40.0	46.0	50.5	55.0	59.0	63.0	65.8	68.6	71.0	73.3	75.0	76.6	78.0	79.7	81.3	82.6	84.0	85.4	86.7	88.0	89.3
13.0	30.5	37.2	42.5	48.0	52.3	56.5	60.5	64.3	67.7	70.0	72.5	74.8	76.7	78.3	79.7	81.2	82.6	83.8	85.2	86.5	87.8	89.2	90.5	91.3
13.5	40.0	45.0	49.7	54.0	58.0	61.5	65.0	68.5	71.3	73.4	75.4	77.5	79.4	80.7	82.0	83.5	85.0	86.2	87.3	88.5	89.8	91.0	92.2	93.0
14.0	48.3	52.5	56.5	60.0	63.0	66.0	69.2	72.0	74.5	76.4	78.0	80.0	81.7	83.0	84.4	85.6	87.0	88.0	89.3	90.3	91.5	92.6	93.8	94.6
14.5	55.3	59.0	62.3	65.0	67.6	70.4	72.7	75.0	77.0	78.7	80.4	82.0	83.7	85.0	86.2	87.3	88.7	89.7	90.8	91.8	93.0	94.0	95.0	95.8
15.0	61.6	64.5	67.7	70.8	72.4	74.3	76.0	78.0	79.7	81.1	82.6	84.0	85.6	86.7	87.9	89.1	90.3	91.4	92.5	93.5	94.5	95.5	96.4	97.0

Table 22:B2. Conductance-temperature correlation for processed raisins; switch setting, top 8

Mois-ture	Conductance readings at temperature (°F):																							
	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102
13.0											0.0	6.7	12.8	18.0	22.2	26.8	31.4	35.4	39.5	43.7	48.0	52.2	55.8	59.0
13.5										2.5	9.0	15.4	21.0	25.2	29.4	34.0	38.3	42.7	46.5	50.5	54.3	58.0	61.5	64.8
14.0									5.7	11.7	17.0	23.0	27.5	32.4	36.6	40.8	44.2	48.3	52.6	56.2	59.6	62.6	66.3	69.2
14.5							1.0	7.5	14.0	19.0	24.3	29.4	34.2	39.0	42.8	46.7	50.9	54.4	57.5	60.8	64.2	67.2	70.3	73.0
15.0						2.5	9.3	15.5	21.7	27.0	31.6	36.3	40.9	45.5	49.2	53.0	56.8	59.7	62.7	65.4	68.2	70.9	73.6	76.1
15.5					4.0	11.0	17.7	23.1	29.7	34.0	38.2	42.7	47.3	51.6	55.2	58.5	62.1	64.9	67.2	69.7	72.0	74.2	76.6	78.7
16.0					13.5	20.0	25.3	31.0	36.0	41.0	45.5	50.0	54.0	58.0	61.6	64.5	67.4	69.6	72.0	73.7	75.5	77.3	79.3	81.0
16.5			13.0	20.5	25.5	32.0	36.6	42.0	46.5	50.7	54.8	58.5	62.0	65.5	68.8	71.0	73.0	75.2	77.0	78.4	79.7	81.3	82.8	84.3
17.0	13.5	22.0	28.4	34.0	39.0	43.5	47.2	51.7	55.7	59.4	62.6	66.0	68.8	71.5	74.1	76.0	77.8	79.4	80.9	82.0	83.2	84.2	85.5	86.7
17.5	31.0	36.0	41.0	45.0	49.0	52.5	56.0	59.5	63.0	66.0	69.0	71.6	74.0	76.2	78.4	80.0	81.5	82.6	83.9	84.8	85.8	86.8	87.8	88.7
18.0	43.0	47.0	50.0	53.5	57.0	59.7	62.7	64.8	69.0	71.5	73.8	76.0	78.0	79.8	81.6	82.7	84.0	85.0	86.0	86.6	87.7	88.5	89.5	90.2
18.5	50.5	53.3	56.0	59.4	62.5	65.0	67.7	70.4	73.0	75.2	77.3	79.2	81.0	82.4	83.8	84.8	85.8	86.7	87.7	88.4	89.0	89.9	90.7	91.3
19.0	56.0	59.5	61.2	64.0	66.8	69.2	71.6	74.0	76.4	78.4	80.2	81.7	83.3	84.5	85.7	86.7	87.6	88.5	89.3	89.8	90.4	91.0	91.7	92.3
19.5	60.7	63.0	65.5	68.3	70.5	72.7	74.7	77.2	79.2	80.8	82.5	83.9	85.2	86.2	87.2	88.0	88.8	89.5	90.3	90.9	91.4	91.9	92.5	93.0
20.0	65.0	67.5	69.6	71.8	74.0	76.0	77.9	79.8	81.7	83.1	84.6	85.7	87.0	87.8	88.7	89.5	90.1	90.7	91.4	91.8	92.3	92.8	93.4	93.9
20.5	69.2	71.3	73.3	75.2	77.2	78.6	80.6	82.4	83.9	85.3	86.4	87.4	88.4	89.3	90.0	90.6	91.2	91.8	92.5	92.9	93.3	93.8	94.3	94.7

MINERAL IMPURITIES (SAND) IN RAISINS

Principle of Method

Because of harvesting and drying methods, raisins are exposed to potential contamination by sand or particles of soil. The objective of the "sand test" is to separate sand and similar inorganic material from the raisin material through a combination of screens, agitation, and water spray. After the sand has been separated from the raisin tissue, it is collected on a fine mesh screen, transferred to a crucible, incinerated to eliminate any organic matter and then weighed. A large test sample is used in order to provide a representative cross section of the product and also provide sufficient residue (sand) to weigh. This remaining residue is considered "mineral impurities" or sand.

Equipment

Beakers - Pyrex - 2,000 ml.
Beakers - 800 ml.
Hot Plate or Stove
Muffle - 550° to 600° C.
Crucibles for incineration of residue.
Screens - 8 inch (20 cm.) diameter - 8 mesh; pore openings 2.38 mm.
Screens - 8 inch (20 cm.) diameter - 24-25 mesh; pore openings 0.70 mm.
Screens - 8 inch (20 cm.) diameter - 250-270 mesh; pore openings 50 microns

NOTE: The fine 250-270 mesh screen may be reduced to 3 or 4 inch diameter (7.5 to 10.0 cm.) with a tapered adapter or funnel to collect washings from the 8 inch, 24-25 mesh screen.

Reagents - Na Cl solution (15%)

Test Procedure

(1) Weigh 200 grams of raisins into a 2,000 ml. beaker; add 1,000 ml. of water;

(2) Add 5 drops of household detergent, bring to boil and simmer for about 20 minutes;

Adapted from "Determination of Acid-Insoluble Residue (Soil)" Journal of the A.O.A.C., Vol. 54, No. 3, May 1971, 40.A07.

(3) Wash through nested screens with the 8 mesh on top, the 25 mesh in the middle and the 270 mesh on the bottom. Using about one-third of the raisins at a time, use a combination of water spray and vigorous rubbing to break down the tissue and release sand or other earthy material.

(4) Remove the 8 mesh screen and thoroughly wash the residue on the 25 mesh screen.

(5) Collect all material that passes through the 25 mesh screen on the 270 mesh sieve.

(6) Carefully transfer the material remaining on the 270 mesh screen to an 800 ml. beaker using a small stream of water.

(7) Let stand for about 5 minutes permitting the heavier material to settle to the bottom of the beaker and the lighter raisin tissue to float.

(8) Decant most of the water and the floating raisin material, retaining the heavier sand on the beaker.

(9) At this point most of the organic material should be eliminated. If there appears to be any appreciable amount in the beaker add about 400 ml. of hot 15% Na Cl solution, let stand for 5 minutes and again decant the water and the lighter material. Remove Na Cl by washing with hot water. Removal can be verified by testing the washings with Ag NO_3.

(10) Filter the residue remaining in the beaker through a fast ashless filter and transfer to a tared crucible.

(11) Dry and ignite in muffle at 550° - 600° C. for about 2 hours.

(12) Cool and weigh residue, reporting results on the basis of "_____ mg/100 g."

1/MINERAL OIL IN RAISINS
(Draft Standard PFV 71/6-12)

In paragraph 55 of the Report of the Eighth Session of the Codex Committee on Processed Fruits and Vegetables (ALINORM 72/20) the observer for the AOAC drew attention to a method that might be suitable for mineral oil in dried fruits. The referenced method appears in paragraph 9.2.4 of the draft standard and references the AOAC, 11th Edition, 28.063.

Further investigation of the problem indicates a moreappropriate and sensitive method for mineral oil in raisins. The details of this new method are outlined herein.

Apparatus

Beakers - 1000 ml; 500 ml; 30-50 ml.

Separatory Funnels - 800 ml.

Steam Bath

Filter Paper, rapid flow.

Chromatographic Tube, 250 ml. dispensing buret; or 30 x 450 mm. Chromatographic tube fitted with stopcock.

Reagents

6N HCl (1+1)

Alumina (Al_2O_3) Brockman Activity I, basic, 80-200 mesh pH9 - 11 in 10% aqueous slurry. (Fisher Scientific Co. No. A 540, A-941 J. T. Baker No. (0539)).

Chloroform, Analytical Grade.

Petroleum Ether, Analytical Grade, B. P. 30°- 60°C.

Na_2SO_4 (anhydrous)

1/ Adapted from the 11th Edition, Association of Official Analytical Chemists, Chapter 14.109-14.112, Mineral Oil in Bakery Products.

Principle of the Method

Raisins contain a certain amount of natural oil which will be extracted along with mineral oil in a normal solvent extraction procedure. The first step, therefore, is to remove any oil, whether vegetable or mineral, from the product using a suitable solvent such as chloroform. After evaporation of the chloroform, the residue containing the oil is then passed through an alumina column to separate the unsaponifiable mineral oil from vegetable oil based upon the solubility differential between the two oils. The vegetable oil remains attached to the alkaline alumina column whereas the non-polar mineral oil is carried through by petroleum ether. Evaporation of the petroleum ether leaves a residue of unsaponifiable oil which is considered mineral oil after verification of purity using refractive index value and the Intran plate spectrum.

Sample Preparation

1) Weigh 200 grams of raisins into a 1 liter beaker;

2) Add with stirring 50 ml. 6N HCl; let stand 1 hour with occasional stirring;

3) Add 200 ml. chloroform to the raisin mass, stir and decant chloroform and aqueous extract into 800 ml. beaker, retaining the raisins in the 1000 ml. beaker;

4) Repeat Step 3 extractions two more times using 200 ml. portions of chloroform for each extraction;

5) Transfer the combined extractions to a separatory funnel, allow to stand sufficiently long to separate chloroform and water layers. Draw off the heavier chloroform layer into an 800 ml. beaker;

6) Add about 100 grams of anhydrous $Na_2 SO_4$ to the chloroform extract and decant through a rapid filter into another 800 ml. beaker;

7) Wash the $Na_2 SO_4$ with a 50 ml. portion of chloroform and decant through filter into beaker, combining the chloroform extracts;

8) Evaporate to near dryness on a steam bath under a gentle stream of air;

9) Transfer residue quantitatively to a 50 ml. beaker using small portions of chloroform, again evaporate, this time to dryness;

10) Dry residue 2 to 3 hours @ 100° C. Cool.

Sorbitol in Raisins and Other Foods

Method

Reagents

(a) Methanol - Absolute, distilled in glass.

(b) Lead acetate, saturated solution - Prepare saturated solution by dissolving 16 grams neutral lead acetate in 100 ml water.

(c) Silica gel (drierite), anhydrous, indicating, 8 mesh - W.A. Hammond Drierite Co., Xenia, Ohio, or equivalent.

(d) Celite, fast flow.

(e) L-D-Glucoheptose, internal standard. K and K Laboratory, Plainview, N.Y.

(f) TMS Reagent, Tri-sil obtained from Pierce Chemical Co., Rockford, Ill., or prepare reagent as follows: Place few grains of drierite in dry bottle fitted with septum stopper. Add from hypodermic syringe in order 9 parts dry pyridine, 3 parts hexamethyldisililzane (HMDS), and 1 part trimethylchlorosilane (TMS). Reagent must be maintained in anhydrous condition. Make pyridine water-free by storing over drierite or 13x molecular sieves.

Apparatus

(a) Syringes - 10 l and 2, 10 ml syringes.

(b) Gas Chromatograph - Perkin Elmer 900 or any instrument with flame ionization detector suitable for the following operating parameters, shown in table 1.

Table 1. Operating Parameters for GLC

Column, glass	6' x 0.16 in ID
Packing	4% SE 30 on 60/80 mesh silanized Diatoport S.
Carrier Gas	Helium, 50 ml/min.
Column temperature	Programmed from 160° to 280°C at 4 /min with 5 min initial delay.
Detector temperature	300°C
Injector temperature	220°C

Preparation of Alumina Column

1) Pack constricted tube of the column with a small wad of glass wool.

2) Add through a powder funnel, 175 g of alumina, tapping tube to ensure uniform packing. Level the surface and cover surface with disc cut from rapid filter paper slightly smaller in diameter than inside of tube.

3) Pre-wash column with about 200 ml. petroleum ether. Just before last of the petroleum ether settles into alumina, stop flow.

Determination

1) Take up the dried residue in 5 - 10 ml. petroleum ether.

2) Pour carefully onto alumina column, open stopcock, and collect eluate at rate "less than" 5 ml/min.

3) Close stopcock when ether-oil mixture has settled to just above surface of alumina. Rinse sample beaker with two 5 ml. portions petroleum ether, rinsing sides of column with each rinse.

4) Open stopcock and let ether settle almost to surface of alumina. Fill column with petroleum ether.

5) Continue adding petroleum ether to column until total of 400 ml. collects.

6) Evaporate petroleum ether to small volume on steam bath, using gentle stream of dry air to aid solvent removal. Stirring rod placed in flask will help prevent superheating and possible boiling over.

7) Transfer quantitatively to small weighed beaker, using small portion of petroleum ether.

8) Evaporate to dryness on warm surface using gentle stream of air. Dry in convection oven for 1 hour @ 100° C.

9) Calculate the percent by weight of this unsaponifiable oil in relation to the original weight of raisins (200 grams).
Calculation: $\frac{\text{Wt. Residue}}{200}$ (100) = percent by weight mineral oil

Identification and Purity of Mineral Oil

1) Transfer approximately 2 drops residue oil to face of NaCl or Irtran plate. Cover with another plate and prepare IR spectrum.

Prepare similar curve, using USP mineral oil. If volume of residue oil is too small to transfer to plate directly, transfer with aid of CS_2. Evaporate solvent completely before covering plate with second plate. Peaks occur at 3.4, 6.82, and 7.25 nm.

2) Obtain refractive index on another drop or two of residue oil and compare with refractive index of USP mineral oil read at temperature.

Preparation of Internal Standards

Weigh out 25 mg glucoheptose. Transfer to 25 ml Vol. flask with 10 ml H_2O. Dissolve and make to vol. with MeOH. If the quantity of sorbitol added to raisins is greater than 0.5%, more concentrated solutions of internal standard should be prepared.

At 25 mg glucoheptose in 25 ml (mg/ml) the peak area response was the same as for 25 mg sorbitol in 25 ml (1 mg/ml) and a ratio of 1 to 1 was used in calculating the mg sorbitol content of the sample.

Sample Preparation

Weigh 100 g raisins into a 250 ml beaker. Extract sorbitol from raisins with 6 portions of 80 ml MeOH swirling 1/2 minute. Care should be taken to prevent excess bruising of raisins. Transfer combined extract solutions to a 500 ml Vol. flask using a funnel. Add 2 ml satd. lead acetate solution to the 500 ml flask and make to vol. with MeOH. Mix and let stand for 1 hour or more. Organic acids are precipitated. Transfer 1 ml of supernatant, and 1 ml standard containing 1 mg glucoheptose to 4 ml vial. Add in 0.1g Celite. Dry in vacuum oven at 45°C and not more than 20 inch of Hg.

Add to the dry vial a few granules of drierite and 2.5 ml TMS reagent using hypodermic syringe. Close teflon lined screw-cap vial and shake thoroughly to mix residue with solution. Let stand 1/2 hour at 45°C to permit complete reaction.

Allow solids to settle out and keep the vial at reaction temperature during GLC analysis. Inject about 1-2 ml of solution into gas chromatograph (sample size depends upon conditions and sensitivity needed to keep sorbitol and internal standards peaks on scale).

In addition to sorbitol and internal standard peaks there will also be present in the chromatogram A and B-D glucose and sometimes sucrose peaks.

Calculations

As = Peak area of sample.
Ai = Peak area of internal standard.
i = Mg internal std added to 4 ml vial.
G = Grams of raisin sample.

$$\frac{As}{Ai} \times i \times \frac{500}{G} \times 100 = \text{mg sorbitol per 100 g sample.}$$

PROPOSED DRAFT STANDARD

GENERAL STANDARD FOR
JAMS (FRUIT PRESERVES) AND JELLIES

Advanced to STEP 5

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; 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 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 by the application of heat to a suitable consistency.

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

2.1.2 "Jelly" is the product:

(a) that is prepared from a suitable fruit ingredient 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 by the application of heat to a tender, semi-solid consistency.

The product shall be filled into clean containers in a manner which shall minimize subsequent 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, 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 otherwise treated to remove objectionable bruises, stems, toppings, tailings, cores, pits (stones), and may or may not be peeled. In the case of ginger, rhubarb, and melon it means respectively peeled ginger root, stemmed and trimmed rhubarb, 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 concentrated 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 at 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 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.]

3.2 Formulation

3.2.1 Fruit content

The product shall contain not less than 40 parts, by weight, of 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 provided that different minimum figures:

(a) May be applied:

(1) in countries having more than one standard; and

*(2) for tropical or exotic fruits.

(b) shall be applied to the following fruits:

Ginger	- 5%
Passionfruit Jelly	7%
Cashew Apple Jam or Jelly	20%
Quince Jelly	35%
Gooseberry Jam	35%
Black Currant	25%
Pineapple	23%
Rosehip	33%
Sour Cherry Jam and Jelly	35%
Raspberry Jam and Jelly	35%
Red Currant Jam and Jelly	35%

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.

* See comments in Committee Report on Tropical Fruits.
[ ] Subject to review.

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, pineapple, 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 may 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 allowances -- Jams (Preserves)

	Limitations
(a) Harmless Extraneous Plant Material (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 mm^2 or larger)	1 piece per 500 grams
(b) Pit (Stone) (whole pit or stone in fruits such as cherries that are normally pitted; or a piece of pit of approximately one-half pit)	1 piece per 1000 grams
(c) Pit Fragments (a piece of pit less than the equivalent of one-half pit and which weighs at least 5 milligrams)	1 piece per 500 grams
(d) Damaged (a piece of fruit that is blemished, discoloured, or bruised by pathological or other means to the extent that it is materially affected)	1 piece per 100 grams
(e) Mineral Impurities	
Strawberry Jam	0.03% 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 sub-section 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 sub-section 3.4.3 when the number of "defectives", as defined in sub-section 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.

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:

	Maximum Level of Use
4.1 Acidifying Agents	
Citric acid - - - Endorsed Malic acid - - - - Endorsed l-Tartaric acid) (Subject to Fumaric acid) Endorsement) Lactic acid -- - -Endorsed	In sufficient amount to maintain the pH at a level of 2.8 - 3.5
4.2 pH Regulating Agents	
Sodium, Potassium, and Calcium salts of any of the acids listed in 4.1	Not limited (Endorsement postponed)
Sodium and Potassium Carbonates and Bicarbonates	Not limited (Endorsement postponed)
4.3 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)
4.4 Thickening Agents	
Agar ----------	Not limited (Endorsement postponed)
Pectin ----------	**Not limited (Endorsed)**
4.5 Colouring matters	
Erythrosine ----------(Temporarily endorsed) Amaranth ----------(Temporarily endorsed) Fast Green FCF ----------(Temporarily endorsed) Ponceau 4 R ----------(Temporarily endorsed) Azo-rubine (Carmoisine) ---------(Not endorsed) Tartrazine ----------(Temporarily endorsed) Wool Green BS (Green 'S')--------(Temporarily endorsed) Sunset Yellow FCF ----------(Temporarily endorsed)	200 mg/kg (singly or in combination)

4.6 Preservatives

Sodium Benzoate Sorbic Acid or Potassium Salt Esters of parahydroxy benzoic acid	(for use in non-hermetically sealed containers)	1000 mg/kg (singly or in combination) (Subject to endorsement)
Sulphur Dioxide		100 mg/kg (Endorsed)

4.7 Natural flavours

Natural fruit essences of the named fruit(s) in the product	Not limited (Endorsed)
Natural Mint Flavour	Not limited (Endorsed)
Natural Cinnamon Flavour	Not limited (Endorsed)

4.8 Firming agents

Calcium Chloride Calcium lactate	500 mg/kg, expressed as Ca (singly or in combination) (Subject to endorsement)

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

(c) Shall not contain any substances originating from microorganisms in amounts which may be toxic.

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.

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.

7.2 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 Prepackaged Foods.

7.3 Net contents

The net contents shall be declared by weight in either the metric ("Système 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.

7.6 Optional labelling (See 7.1.3, 7.1.4, 7.1.5)

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 Sampling Plans for Prepackaged Foods.

8.2 Test Procedures

8.2.1 Soluble Solids

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

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

8.3 Determination of calcium in jams

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) Substract 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

GENERAL STANDARD FOR CITRUS MARMALADE

Advanced to STEP - 5

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". 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 in the form of whole fruit, fruit pulp, or fruit puree, with or without citrus juice, with or without the extraction of peel and with or without the removal of some or all of the peel.

The prepared fruit ingredient is mixed with a suitable carbohydrate sweetener and may include the addition of water, pectin, edible acids, and other minor ingredients.

The prepared mixture is processed by the application of heat to a suitable consistency.

The product shall be filled into clean containers in a manner which shall minimize subsequent 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, has been removed.

2.2 Other definitions

2.2.1 "Prepared fruit" or "prepared 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 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 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 syrup, fructose, glucose syrup, dried glucose syrup.

3.1.2 Other 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 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 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.

3.3 Soluble Solids (Finished Product)

The soluble solids value of the finished product may 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 3.4.2 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.

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 Agents		Maximum Level of Use
Citric acid - - - Endorsed Malic acid - - - Endorsed L-Tartaric acid - (Subject to Endorsement) Fumaric acid - - - (Subject to Endorsement) Lactic acid - - - Endorsed	singly or in combination	In sufficient amount to maintain the pH at a level of 2.8 - 3.5.

4. FOOD ADDITIVES -- continuation

4.2 pH Regulating Agents

Sodium, Potassium, and Calcium salts of any of the acids listed in 4.1	Not limited (Endorsement postponed)
Sodium and Potassium Carbonates and Bicarbonates	Not limited (Endorsement postponed)

4.3 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)

4.4 Thickening Agent

Pectin	Not limited (Endorsed)

4.5 Colouring Matters

Caramel	Not limited (Not endorsed -- to be reconsidered)
In Lime Marmalade only	
Tartrazine Wool Green BS (Green 'S')	100 mg/kg (Singly or in combination) (Temporarily endorsed)

4.6 Preservatives

Sodium Benzoate Sorbic Acid or Potassium Salt Esters of parahydroxy benzoic acid	(for use in non-hermetically sealed containers)	1000 mg/kg (singly or in combination) (Subject to endorsement)
Sulphur Dioxide		100 mg/kg (Endorsed)

4.7 Natural flavours

Natural fruit essences	Not Limited (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 be toxic.

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 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.

7. LABELLING

In addition to Sections 1, 2, 4 and 6 of the Recommended International General Standards 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 "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 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 sub-section 3.2 (c) of the General Standard for the Labelling of Prepackaged Foods.

7.3. Net contents

The net contents shall be declared by weight in either the metric ("Système 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 Sampling Plans for Prepackaged Foods.

8.2 Test procedures

8.2.1 Soluble solids

Soluble solids shall be determined by the Refractometric method, disregarding any adjustment for insoluble solids and acids, 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

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) Substract 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.

APPENDIX X

PROPOSED AMENDMENTS TO THE RECOMMENDED
INTERNATIONAL STANDARD FOR CANNED PEACHES
CAC/RS 14-1969
Advanced to STEP 5

3. FOOD ADDITIVES

Antioxidant	Maximum Level of Use
L-Ascorbic acid	700 mg/kg

6. LABELLING

6.2 List of ingredients

6.2.1 If ascorbic acid is added to preserve color, its presence shall be declared in the list of ingredients or elsewhere on the label in this manner:

"Ascorbic acid added to preserve color".

PROPOSED AMENDMENT TO THE RECOMMENDED
INTERNATIONAL STANDARD FOR CANNED PINEAPPLE
CAC/RS 42-1970
Advanced to STEP 5

2.2 Quality criteria

2.2.1.3 Excessive trim --

(considered a defect only in the styles of Whole, Sliced including Spiral Sliced, Half Sliced, Quarter Sliced and Spear). A unit trimmed to the extent that its normal shape and conformation is destroyed and detracts from the appearance of such unit. Trim will be considered "excessive" if the portion trimmed away exceeds five percent of the apparent physical bulk of the perfectly formed unit and if such trimming destroys the normal circular shape of the outer or inner edge of the unit.

APPENDIX XII

PROPOSED AMENDMENT TO THE RECOMMENDED
INTERNATIONAL STANDARD FOR CANNED TOMATOES
CAC/RS 13-1969
Advanced to STEP 5

3. FOOD ADDITIVES

3.2 Firming Agents		Maximum Level of Use
Calcium chloride Calcium sulphate Calcium citrate Mono-calcium phosphate Calcium lactate Calcium glutomate	Singly or in combination	(0.080% total calcium ion content in the styles "diced", ("sliced", and "wedges": (0.045% total calcium ion content in the styles "whole", ("whole and pieces" and "pieces".

NETHERLANDS PROPOSED AMENDMENTS TO

CANNED GREEN AND WAX BEANS
CAC/RS - 16-1969
Step - 2

Proposed Amendments of The Netherlands to the Step 9 Standard for Canned Green Beans and Wax Beans

1.1 Product Definition

Fourth line: delete the words "strings, if any, and"
Argumentation: tolerance mentioned in "2.2.5 Defects and Allowances" (see below) is sufficient.

1.4.3 Cuts: it is proposed to prescribe a maximum length of 50 mm.

1.5 Designations in Accordance with Size

The present formulation does not meet the demand for a standardized classification as a means to inform the consumer properly. We wonder whether the following sizing could meet this demand.

A. 1. french beans, extra fine, diameter up to 6.5 mm
2. french beans, very fine, diameter up to 8.0 mm

B. 1. green beans, fine, diameter up to 9.0 mm
2. green beans, first choice, diameter up to 10.5 mm
3. green beans, medium, diameter up to 12.0 mm
4. green beans, unsized.

1.5.1 Tolerances for sizing

The percentages mentioned below refer to the number of pieces.

A. 1. 10% of total, but less than 5% of total over 6.7 mm
2. 10% of total, but less than 5% of total over 8.3 mm

B. 1. 15% of total, but less than 5% of total over 9.5 mm
2. 25% of total, but less than 10% of total over 11.0 mm
3. 25% of total, but less than 15% of total over 12.5 mm
4. not more than 25% of category B 3.

2.2 Quality Criteria

2.2.1 Definition

Proposal to add a sentence reading:

"Split bean (especially in "cuts"): pod that has been split longitudinally into two halves."

2.2.4 Texture

The sentence should read as follows:

"The beans shall be reasonably tender and not fibrous." Tolerances concerning the presence of tough strings have been provided for in the new version of "2.2.5." called "Defects and Allowances" given below.

2.2.5 Defects

The present text need to be completely revised and adapted to the manner in which "Defects and Allowances" are defined and classified in "more recent" standards. It is proposed to replace the present paragraph 2.2.5 by a new version mentioned below.

Proposed new version of 2.2.5

Defects and allowances

Canned green beans shall be reasonably free from defects within the following prescribed limits.

Defects	Maximum limits (based on the weights of the drained beans)		
	1.4.1	1.4.3; 1.4.4; 1.4.5	1.4.2
(a) Blemished units (consisting of pods or pieces of pods which are slightly stained or spotted. Diameter of the blemishes more than 2 mm)	10% m/m	10% m/m	10% m/m

(b) Seriously blemished units (consisting of pods or pieces of pods which are spotted, discoloured, damaged by insects or pathological organisms to the extent that the appearance or eating quality is seriously affected. Diameter of the blemishes must be at least 5 mm).	1% m/m	1% m/m	1% m/m
(c) Damaged units (consisting of pods or pieces of pods which are crushed, show cracks, distortions or other mechanical damages)	10% m/m	3% m/m	
(d) Split units (pods or pieces of pods which are split lengthwise or separated into two halves)	5% m/m	10% m/m	
(e) Units with tough strings (strings which can be drawn from pods or pieces of pods with a considerable resistance by pulling on both ends; see 1.6).	5% m/m	5% m/m	
(f) Fibrous units (pods or pieces of pods which contain parchment-like material formed during the ripening of the pods to the extent that the eating quality is seriously affected	5% m/m	5% m/m	5% m/m
(g) Extraneous plant material (consisting of any stem or leaf or vine material from the bean plant, or other harmless plant material not purposely added as an ingredient)	0.5% m/m	0.5% m/m	0.5% m/m
(h) Short ends (ends of pods resulting from cutting, shorter than 1 cm)		5% m/m (only 1.4.3 and 1.4.5)	

Total of the foregoing defects (a), (b), (c), (d), (e),	20% m/m	25% m/m	10% m/m
Unstemmed units (pods or pieces of pods with pieces of stems attached)	6 by number on 500 gms drained beans	6 by number on 500 gms drained beans	

3. Food Additives

It is proposed to add pectin as a thickening agent.

5.1.4 Minimum Drained Weight

The minimum drained weight for "cuts" must be 59%, instead of 55%

For "whole" 54% instead of 50%, and for "cuts lengthwise" 61% instead of 55%

6.6.1 This paragraph should be deleted.

6.1 Name of food

The paragraph 6.1.1 should read as follows:

"6.1.1: The name of the product shall be

a. for unsized products: "Green beans" or "wax beans" as appropriate

b. for sized products: "the names mentioned in 1.5 (new version) as appropriate."

The name shall further include a declaration of any seasonings which characterizes the product, e.g. "With X", as appropriate."

MINERAL IMPURITIES (SAND) IN CANNED STRAWBERRIES 1/
(Draft Standard FFV 70/8-7)

Editor's Note

At the Sixth Session of the Codex Committee on Methods of Analysis and Sampling the Delegation of the USA informed the Committee that a new method had been developed for mineral impurities in strawberries and spinach. This method had been collaboratively studied in the USA and was reported in the Journal of the AOAC, Volume 54 No. 3, 1971 (pages 581-583).

The study was conducted on frozen strawberries and consequently will require a slight modification as regards sample preparation. The text which follows has been modified accordingly to be specific for Canned Strawberries. No other change of substance has been made in the methodology as reported in the referenced AOAC procedure.

Apparatus

Blender or macerator (Atomix, Turmix, Waring or equivalent)
Beakers - 2,000 ml. capacity
Funnels
Filter Paper, Whatman No. 1, or equivalent
Porcelain or platinum crucibles
Air oven or bunsen burner
Muffle furnace (600° C.)
Dessicator with active dessicant
Analytical balance

Reagents

NaCl solution (15%)
HCl

Preparation of Test Sample

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

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

1/ Prepared by USA for consideration at the Ninth Session of the Processed Fruits and Vegetables Committee.

Procedure

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

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

3) Let stand about 10 minutes and decant supernatant material 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 settle 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 $AgNO_3$.

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 H_2O 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 grams, use the following formula -

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

in which
X = mineral impurities
W = weight of test sample (grams)
R = residue remaining after incineration (milligrams)

A LISTING OF TEST PROCEDURES FOR METHODS OF ANALYSES FOR PROCESSED FRUITS AND VEGETABLES

TEST	PRODUCT(S)	PRINCIPLE	LITERATURE REFERENCES
Soluble Solids	Jams & Jellies Citrus Marmalade	Refractometer	Methods of AOAC-1970 22.019 & 31.011
Soluble Solids (Brix)	Applesauce	Refractometer	Methods of AOAC-1970 22.019 & 31.011
Syrup (Brix) Measurement	Canned Fruits	Refractometer	Methods of AOAC-1970 31.011
Washed Drained Weight	Mushrooms	Water spray	1. Detailed in Standard PFV 70/8-18 2. ALINORM 69/23 - App. IV
Drained Weight (Method I)	All except Canned Tomatoes	Direct Draining	1. CAC/RM 36-1970 2. Methods of AOAC-1970 32.001 & 32.002
Drained Weight (Method II)	Canned Tomatoes	Direct Draining	1. CAC/RM 37-1970 2. Methods of AOAC-1970 32.001 & 32.002
Alcohol Insoluble Solids	Canned Green Peas	Starch Precipitation	Methods of AOAC-1970 32.006
Tough String Test	Canned Green and Canned Wax Beans	Tensile Strength	CAC/RM 39-1970
Sulphur Dioxide	Raisins	Colorimeter	Methods of AOAC-1970 20.093
Salt	Tomato Concentrates	Potentiometric Titration	Journal of AOAC-Vol. 54 No. 2, March 1971 32.A01 - 32.A05
Calcium	All Processed Fruits and Vegetables	Complexometric Titration	Methods of AOAC-1970 32.014-32.016
Mineral Impurities	Tomato Concentrates & Raisins	Sedimentation & Incineration	Ninth Session PFV Committee Report App. VII, Annex II, June 1972

TEST	PRODUCTS(S)	PRINCIPLE	LITERATURE REFERENCES
Mineral Impurities (Continued)	Canned Strawberries	Sedimentation & Incineration	Ninth Session PFV Committee Report App. XIV, June 1972
Mineral Oil	Raisins	Column Chromotography Separation	Ninth Ses. PFV Committee Report App. VII, Annex III, June 1972
Sorbitol	Raisins	Gas Liquid Chromotography	Ninth Ses. PFV Committee Report App. VII, Annex IV, June 1972
Moisture	Raisins	Oven Dry	Alternative-Methods of AOAC-1970 22.012 & 22.003(c)
		Electrical Conductance	Ninth Ses. PFV Committee Report App. VII, Annex I, June 1972
Water Capacity of Containers	All Canned Products	Gravimetric	Detailed procedure in each standard (Reference: U.S. Code Federal Regulations Title 21; CFR. Sec. 10.6)
Determination of proper fill in lieu of Drained Weight	Canned Green Peas	Pour and Return	Attachment No. I to Appendix V, ALINORM 71/20
Mould Count	Canned Tomatoes & Tomato Concentrates	Howard Method	Methods of AOAC-1970 40.085
Natural Tomato Soluble Solids	Tomato Concentrates	Refractometric	Methods of AOAC-1970 32.008 - 32.010
Distinguishing types of Peas	Canned Green Peas	Starch Pattern	Detailed procedure in standard (PFV 70/6-14) Appendix V of Alinorm 71/20 (Reference: Appendix IV of ALINORM 69/23)
Proportions of Fruit	Canned Fruit Cocktail Canned Tropical Fruit Salad	Physical Separation	Detailed procedure in each standard (Reference: Appendix IV of ALINORM 69/23)

Extract from
ALINORM 72/20 A

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 - - - - Approximate halves or whole pitted or unpitted cherries of the species Prunus cerasus L. --

(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%	6% to 20%
		- - or - -
Cherries	2% to 6%	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 classifed 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:

Slightly Sweetened Water Water Slightly Sweetened Extra Light Syrup	Not less than 10° Brix but less than 14° Brix.
Extra Heavy Syrup	More than 22° Brix.

2.2.2 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 drained pineapple portion approximate 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 color 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:

	Maximum Limits (based on the weight of drained fruit)
(a) Blemished fruit pieces (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) Peel -- (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) Pit material -- (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) Small stems -- (based on averages) (such as capstems from grapes)	5 per kg
(e) Large stems -- (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

(1) the applicable requirements in 2.4.1 through 2.4.4 (except proportions 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

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:

	Maximum Level of Use
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)

		Maximum Level of Use
Natural flavours and their identical synthetic equivalents	- - - - - - -	Limited by Good Manufacturing Practice (Temporarily Endorsed)
Cherry Laurel Oil and/or Bitter Almond Oil	to flavour artificially coloured cherries only	10 mg/kg in the total product (Subject to Endorsement)
	- - - - - - - - - - - -	40 mg/kg in the total product (Endorsed)

Anti-oxidant

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

4. HYGIENE

4.1 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).

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

4.3 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 be toxic.

5. WEIGHTS AND MEASURES

5.1 Fill of container

5.1.1 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.

5.1.2 Classification of "defective"

A container that fails to meet the requirement for minimum fill (90 percent container capacity) of 5.1.1 shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirement of 5.1.1 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.

5.1.4 Minimum Drained Weight

5.1.4.1 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.

5.1.4.2 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.

6. 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:

6.1 The name of the food

6.1.1 The name of the product shall be "Fruit Cocktail".

6.1.2 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".

6.1.3 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"

6.1.4 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"

6.1.5 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"

6.1.6 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)"

6.1.7 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"

6.1.8 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:

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

6.1.9 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.

6.2 List of ingredients

6.2.1 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 that water and fruit juice need not be declared and except as provided in 6.2.2.

6.2.2 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".

6.2.3 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients or elsewhere on the label in this manner:

"Ascorbic acid added to preserve colour".

6.3 Net contents

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

6.4 Name and address

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

6.5 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.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described or referred to hereunder are international referee methods. The methods referred to in 7.1, 7.2, 7.3, 7.4, and 7.5 have been endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling

Sampling shall be in accordance with the Sampling Plans for Processed Fruits and Vegetables.

7.1.1 Size of Sample Unit *

7.1.1.1 For ascertaining proportions of fruits and fill of container (including drained weight) the entire container shall be the sample unit.

7.1.1.2 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.

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* Text as given for "Size of Sample Unit -- Method II" in Appendix IV of ALINORM 69/23, except that paragraphs 3, 3.1, and 3.2 have hereby been purposely omitted for this Draft Standard.

7.2 Ascertaining Proportions of Fruit **

7.2.1 Procedure

7.2.1.1 Determine drained weight and keep liquid and fruit separate;

7.2.1.2 Separate individual fruit ingredients, removing those fruits present in lesser amounts (such as cherries, pineapple, grapes);

7.2.1.3 Weigh the individual fruit ingredients to the nearest gram;

7.2.1.4 Record each fruit's weight and add all of these weights.

7.2.2 Calculation and Expressions of Results

Calculate the percentage of fruit proportions:

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

7.3 Determination of Drained Weight ***

7.3.1 Definition ***

7.3.2 Materials ***

7.3.2.1 Specifications for circular sieves ***

(a)
(b)
(c)

7.3.3 Procedure ***

7.3.4 Calculation and Expression of Results ***

7.4 Syrup measurements ****

7.4.1 Procedure ****

7.4.2 Calculation and Expression of Results ****

7.4.3 Literature References ****

** Text as given for "Ascertaining Proportions of Fruit" in Appendix IV of ALINORM 69/23.
(a) Do not use the original drained weight of the product before separation of the fruits.

*** Methods of Analysis of AOAC-1970 - 32.001 and 32.002
**** Methods of Analysis of AOAC-1970 - 31.011 (Uncorrected for Invert Sugar.

7.5 Method for Determination of Water Capacity of Containers

7.5.1 Metal containers

7.5.1.1 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.

7.5.2 Glass containers

7.5.2.1 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.