Introduction

1. The Joint ECE/Codex Alimentarius Group of Experts on Standardization of Fruit Juices held its tenth session at the Palais des Nations, Geneva from 16 to 20 July 1973 under the chairmanship of Professor W. Pilnik (the Netherlands).

2. The session was attended by 55 participants including the representatives from Algeria, Australia, Austria, Belgium, Brazil, Canada, Denmark, Ecuador, Finland, France, Federal Republic of Germany, Ghana, India, Italy, Morocco, the Netherlands, Norway, Poland, Spain, Switzerland, Turkey, the United Kingdom, the United States of America, and Yugoslavia, and observers from the European Economic Community, the International Fruit Juice Federation and the International Wine Office. The list of participants is contained in Appendix I to this Report.

Adoption of the Agenda

3. The Group of Experts unanimously adopted the Provisional Agenda.

Election of Rapporteurs

4. Mr. L.M. Beacham of the United States of America agreed to accept the position of rapporteur for the meeting.

Matters arising from the Reports of (i) the Ninth Session of the Codex Alimentarius Commission, (ii) the Seventh and Eighth Session of the Codex Committee on Food Labelling, (iii) the Ninth and Tenth Session of the Codex Committee on Food Hygiene, (iv) the Seventh Session of the Codex Committee on Methods of Analysis and Sampling, and (v) the Eighth Session of the Codex Committee on Food Additives
5. The Group of Experts was informed by the Secretariat of the main decisions of the Ninth Session of the Commission relating to fruit juices and noted that the Draft Standards for Concentrated Apple Juice and Concentrated Orange Juice had been adopted at Step 8 of the Procedure for the Elaboration of World-Wide Codex Standards. The Group of Experts also noted that the Commission had decided to hold the draft standards for Vinifera-type grape juice and Vinifera-type concentrated grape juice at Step 8 of the Procedure for the Elaboration of World-Wide Codex Standards. The Group of Experts agreed that it would be best to consider the remarks in the reports of the above mentioned Codex Committees relating to the standards which were before it for consideration, when it came to discuss the standards individually.

6. The Chairman drew the attention of the Group of Experts to the request it had made to the delegation of Romania at its previous session (ALINORM 72/14, para 23), to prepare a paper for its consideration on the substitution of the word "sensoric" for the word "organoleptic", according to the decision of the ISO to make this substitution in all its technical committees, as this word referred not only to quality but also to quantitative criteria. The Group of Experts was informed by the Secretariat that the paper had only just been received and that it had arrived too late to be translated in time for the present session. The Group was also informed that the paper was of a rather detailed nature and would require careful examination and agreed, therefore, to send it out for government comments and to consider it at its next session.

7. The Chairman also reminded the Group that a paper on the Sampling Plan was to have been prepared by the delegations of the Netherlands and Spain (ALINORM 71/I4A, para 61), and queried whether the Group was still of the view that it should draw up its own Sampling Plan despite the fact that the Sampling Plans for Prepackaged Foods were now in the process of publication. The Group agreed to await the publication of the Sampling Plans for Prepackaged Foods and to consider it in the light of its own requirements. It further agreed that should it be found necessary, the matter could be discussed at a future session.

Consideration at Step 7 of the Draft Standard for Concord and Concord type grape juice preserved exclusively by physical means

8. The Group had before it for consideration the above mentioned standard as contained in ALINORM 72/14, Appendix III (AGRI/WP.1/737, Appendix III) and government comments thereon as contained in documents CX/FJ 73/3, CX/FJ 73/3 Addendum 1 and CX/FJ 73/Lim. 1.

Title

9. The delegation of the USA proposed that the title be amended to read "Concord and other Labrusca type grape juice preserved exclusively by physical means".

10. Several delegations stated that they were against the use of the name "Concord" and preferred the botanical name "Labrusca". The delegation of the Federal Republic of Germany stated its objection against a product prepared from Labrusca type grapes to be called "grape juice" even if qualified by the type Labrusca. In addition, the delegation of the Federal Republic of Germany requested confirmation from the Group of Experts that the words "preserved exclusively by physical means" did not permit any type of chemical preservation to be used during the processing of the product. The Chairman stated that in his opinion this was indeed the intention of the standard. The Group decided to amend the title to read "Draft Standard for Labrusca Type Grape Juice Preserved Exclusively by Physical Means".
Scope

11. The delegation of the USA proposed to modify the scope section to read as follows: "This standard applies to grape juice which has the essential flavour characteristics of Labrusca type grapes and which is made in whole or in part from Labrusca type grapes, or blends thereto with other types of grapes". The delegation explained that there are on the market in the USA white and red grape juices that are blends of various Labrusca grapes, sometimes with Vinifera, but which have the essential flavour characteristics of the former.

12. Several delegations considered that Vinifera type juices could be permitted in the same way that the addition of Citrus Reticulata had been permitted in the Standard for Orange Juice Preserved Exclusively by Physical Means. The delegation of the Federal Republic of Germany suggested that the word "fruit" could be substituted for the word "grape".

13. The delegation of Switzerland stated that, in his opinion, this was not the same situation, as in the orange juice standard the Citrus Reticulata had been added to give colour. However, the delegation suggested that the standard could allow for the addition of Vinifera type juices but not under the scope section. It further suggested that this problem could be solved under the labelling requirements.

14. The Group agreed to amend the scope section to read as follows: "This standard applies to grape juice which has the essential flavour characteristics of Labrusca type grapes."

Description

15. The Group of Experts was informed that a slight editorial amendment should be made in the second sentence, namely, to include the phrase "corrected for acidity" and delete the latter half of the sentence, as both acidifying and de-acidifying agents were permitted in the standard. The delegation of the Federal Republic of Germany reserved its position in relation to the addition of acids to any kind of fruit juice.

Soluble Solids

16. The Group agreed to the editorial amendments submitted by the United Kingdom in their written comments (CX/FJ 73/3) and the amended text appears in Appendix II to this Report.

Sugars

17. It was suggested that if the provision permitting added sugar was deleted from the standard, then the reference to it in the provision on "Soluble Solids" could also be deleted. Reference was made to an earlier discussion in which it was proposed that the two separate standards of Vinifera and Labrusca type grape juices could be recombined into a single standard if the provision for "sugars" in the Labrusca standard could be deleted. The delegation of the United States of America explained that it might be possible to forego the addition of sugar in single strength juice sold in the United States, but a significant quantity of grape juice concentrate sold in consumer packs had substantial amounts of added sugar. The delegation of France suggested that when the product is prepared with the addition of Vitis vinifera juice to Labrusca juice, the amount of added sugar permitted should be proportional to the Labrusca content only. Otherwise, to allow the full compliment of sugar permitted to a maximum of the two juices, would in effect result either in more than the allowed amount in the Labrusca portion or the addition of sugar to the Vinifera juice when it is not permitted.
18. The delegation of Switzerland, however, felt that it was up to the manufacturer to obtain the appropriate concentrate so that the single strength juice would conform with the standard for grape juice intended for direct consumption. It felt also, that the deletion of the provision for "sugars" would make it easier as far as this standard was concerned, to deal with mixtures and blends of Labrusca and Vinifera type grape juices.

19. The Group felt that in view of manufacturing practice in the industry the provision for "sugars", should be retained.

Organoleptic Properties

20. In line with the amended scope section, the reference to "concord" was deleted from this section. Some delegations asked whether colour of the juice was related to the colour of the grape, and queried the reference to "colour" as an organoleptic characteristic of the grape juice. The delegation of the United States of America explained that there were Labrusca varieties which gave a white juice and yet had the characteristic of aroma and flavour associated with all Labrusca varieties. The Concord variety which characteristically gave a purple juice could be processed to give a light coloured juice but this juice is used only in wine manufacturing.

21. The Group decided to make the slight drafting amendments recommended by the United Kingdom and the USA in their written comments, but otherwise to leave this section as it appeared in the text.

Use of Concentrates

22. In view of the commercial practice in the USA of blending various types of single strength grape juice the Group decided that the wording of this section should read as follows: "The addition of concentrate to juice is permitted".

Hygiene

23. The Group of Experts was informed that the Codex Committee on Food Hygiene, at its tenth session, had, on the advice of the Codex Committee on Food Additives, amended subsection 7.2(b) by deleting the words "be toxic" and substituting the phrase "represent a hazard to health".

Food Additives

24. The delegation of Poland, supported by several other delegations, considered that it would be useful if a limit for the amount of l-ascorbic acid added as an antioxidant could be fixed. Other delegations were opposed to fixing a limit, pointing out that in subsection 9.6.3 the amounts added for vitaminized juices were according to national legislation. The Group decided to maintain the present text, noting that the delegations of Belgium, Denmark and Poland preferred a limit for the maximum level of use other than GMP. The Group agreed to bring the provisions regarding the maximum level of use for pure carbon dioxide into line with the other food additives by limiting it to GMP.

Processing Aids

25. The Group agreed to include a provision for de-acidifying agents as in the standard for Vinifera type grape juice, with the addition of calcium hydroxide.

26. The delegation of Switzerland proposed that polyvinyl polypyrrolidone (PVPP) should be included among the clarifying agents.

27. The Group was informed that the Joint FAO/WHO Expert Committee, which had met in Geneva in June 1973, had withdrawn the acceptable daily intake it had previously
set for polyvinylpyrrolidone (PVP) on the basis of new recent toxicological information. The Group then requested the Codex Committee on Food Additives to look into the matter of the more highly polymerized material (PVPP) currently used by the fruit juice industry, to see whether the evaluation of the Expert Committee covered that type of PVP.

Contaminants

28. The delegation of Finland proposed that cadmium be added to the list of contaminants in view of its toxicological significance and the fact that it has been found in increasing amounts in the environment. The delegation of Switzerland reminded the Group of the survey on cadmium in fruit juices which they had carried out two years ago and in which they had not found any levels of cadmium higher than 0.1 mg/kg. The Group noted that cadmium had been toxicologically evaluated by the Joint FAO/WHO Expert Committee on Food Additives (16th session) and had been given a per caput maximum tolerable weekly intake of 0.4/0.5 mg. The Group decided not to include cadmium in the list of contaminants because it did not have sufficient analytical data on levels of cadmium in fruit juices on which to base an internationally acceptable maximum limit. The Group discussed whether, in the re-edited standard for single strength grape juice (see para 48), the maximum level for tin should be 250 mg/kg as it had been in the Labrusca type or 150 mg/kg as in the Vinifera type and agreed that the limit in the re-edited draft (for both types) should be 150 mg/kg.

Labelling

29. The Group was informed that the Codex Committee on Food Labelling, at its eighth session held recently in Ottawa, had decided to request all Codex Commodity Committees to give careful consideration to the merits of automatically attracting sections of the General Standard for the Labelling of Prepackaged Foods, to the individual standards which they were elaborating.

The Name of the good

30. At the special request of the Chairman, the Group agreed to hear a personal statement from Mr. G. d'Eaubonne (International Federation of Fruit Juice Producers). Mr. d'Eaubonne, speaking from long experience, advised the Group that elaborating a separate standard for Concord type grape juice might be considered a retrograde step as far as standardization was concerned. He felt that the Group might find itself in the future, obliged to establish further separate standards for each variety. He considered that it should not be difficult to include a suitable qualification in one standard informing the public and indicating particular characteristics of the different products.

31. The Group agreed that the problems and the various possibilities relating to the name of the food needed further consideration by delegations and agreed to defer their decision on this provision until later on in the session.

List of Ingredients

32. The written editorial amendment to section 9.2.1 proposed by the U.K. was adopted by the Group. One delegation felt that "(b) antioxidants" in 9.2.3 should be deleted as consumers had a right to be informed concerning the antioxidant present in the juice. However, it was pointed out that some national legislations prohibited the declaration of added vitamins (in this case ascorbic acid) below a minimum level or if used for technological purposes and that the class title "(la) antioxidant" as an alternative was, therefore, necessary. It was also noted that the Commission had approved the use
of "class" names including the class title "antioxidant". The Group decided to leave 9.2.3 as drafted in the present text.

Country of Origin

33. The Group, in discussing "country of origin" in 9.5.1, was in agreement that where a concentrated grape juice was imported and reconstituted to single strength juice then the country of origin of the single strength juice remained the place where the concentrate was produced. However, where juices were imported from several different places and Mended to form a product, the "country of origin" was the place where the blending was done. The delegation of Canada pointed out that his government had laid down guidelines when the words "Product of Canada" may be applied to a reconstituted or blended product. Some producers used the words "packed in Canada" as an alternative when the product did not qualify as a "product of Canada". Some delegations expressed concern regarding the phrase "which changes its nature" in paragraph 9.5.2, in that mixing or blending of fruit juices or reconstitution did not change the nature of the product. After discussion, it was decided that the intent of this section would be met if paragraph 9.5.2 would be deleted from the standard and 9.5.1 amended in the terms of the General Standard, to read: "The country of origin of the product shall be declared if its omission would mislead or deceive the consumer".

Additional Requirements

34. The Group agreed to include a provision requiring the declaration of the presence of sulphur dioxide if it exceeded 10 mg/kg, as had been done in the standard for Vinifera type grape juice.

Bulk Packs

35. In order to clarify more precisely the meaning of this provision the delegation of France proposed that the words "referring to it" be added at the end of the provision, thus ensuring that the accompanying documents were clearly identifiable with the container.

36. The delegation of Switzerland drew the Group's attention to the recent decisions regarding bulk packs made by the Joint Codex/IOOC Meeting on the Standardization of Table Olives and the Codex Committee on Cocoa Products and Chocolate where a new wording had been adopted for bulk packs, which was as follows: "The information contained in ... and ... should either be given on the container or be given in accompanying documents except that the name of the product and the name and address of the manufacturer or packer should appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents". The Group decided to replace the present text with the proposed new wording.

Consideration of the Draft Standard for Concord and Concord Type Concentrated Grape Juice Preserved Exclusively by Physical Means

Title

37. The Group had before it for consideration the above mentioned standard as contained in document ALINORM 73/14, Appendix V (AGRI/WP.1/737, Appendix IV), and government comments thereon as contained in documents CX/FJ 73/4, Addendum 1 (AGRI/WP.1/GB.4/R.3 and Addendum 1).
38. The Group agreed to amend the title in the same way as it had done for the single strength juice.

Scope.

39. The delegation of the U.K. pointed out that the standard only applied to the concentrates which, on reconstitution, had the essential flavour characteristics of Labrusca type grape juices. The Group agreed with this viewpoint and amended the text accordingly.

Description.

40. The delegation of Switzerland was of the opinion that the standard should make it clear that it applied only to the concentrated juice offered for sale as such, and did not apply to the concentrated juice used as ingredients in the manufacture of food. The Group did not consider it necessary to make any change to the present text of the standard, as the question of "ingredient juices" would be considered at another time.

41. The Group agreed, however, to add the words "and corrected for acidity" to the first paragraph of section 2 and to editorially amend section 2.2 to delete the reference to Concord grape.

Essential Composition and Quality Factors

42. In order to make it clear that the maximum level of 75 mg/kg for sugars was not in terms of the concentrated juice, the Group agreed to amend sub-section 3.1.1 by adding the following words at the end of the second sentence: "of the product reconstituted in accordance with section 9.7".

Processing Aids

43. The Group agreed to provide for calcium hydroxide, calcium carbonate (pure precipitated) and neutral potassium tartrate as de-acidifying agents, limited by GMP.

Contaminants

44. The Group agreed to make a provision for total sulphur dioxide of a maximum of 50 mg/kg with the understanding that this maximum level would be reduced to 10 mg/kg on 1 July 1976. The Group decided to make no change to the contaminants provisions in concentrated juice as it did not consider itself to be in a position to propose actual maximum levels (see the views of the delegation of Poland in this report in para 82).

Hygiene

45. The same editorial amendment was made to section 6.2(b) as in the case of the single strength Labrusca type grape juice. The delegations of France and the Federal Republic of Germany were of the opinion that the preamble to 7.2 dealing with methods of sampling and examination could be deleted as no appropriate methods had been specified in the standard. It was pointed out that various international bodies were considering the problem of microbiological methods of sampling and examination of food and that, in due course, the Codex Committee on Food Hygiene would consider these methods with a view to their being further elaborated into Codex referee methods. Until such time it was up to national control authorities to select whatever methods they found appropriate for the micro-biological assessment of these products. The Group agreed not to make any change to the preamble to sub-section 6.4.2.

Name of the Food
46. After considerable discussion the Group agreed that, as far as the Labrusca type grape juice was concerned, the name of the food presented considerable difficulties because of the varietal names and the problem of blends.

47. The delegation of the USA proposed the following new wording for section 9.1:
"The name of the food shall be "grape juice" immediately preceded or followed by a varietal designation, except in those countries where the national authorities determine that the omission of such varietal designation would not mislead or deceive the consumer. The varietal designation shall consist of the name of the variety of grapes from which the juice was derived, or if two or more varieties have been blended, the name of the variety present in the greatest proportion shall be accompanied by the words "and other varieties". "The delegation also stated that it was prepared to delete the provision concerning added sugars in the single strength juice.

48. The Group considered that these proposals were highly satisfactory, in that they allowed them to adopt a revised approach to all the grape juice standards. The Group, therefore, agreed to re-edit both the single strength and concentrated Labrusca type grape juice standards, to include Vinifera type juices and to make only two standards for unsweetened products, one for single strength grape juices and the other for concentrated grape juices and to this effect appointed a small Drafting Group (Prance, USA, the Chairman and the Secretary) to do this re-editing.

49. The Group agreed that the two re-edited standards would replace the four individual grape juice standards which they had been elaborating, namely: the Draft Standard for Vinifera Type Grape Juice; the Draft Standard for Vinifera Type Concentrated Grape Juice; the Draft Standard for Concord and Concord Type Grape Juice; and the Draft Standard for Concord and Concord Type Concentrated Grape Juice.

50. In addition, the Group further agreed that, in order to allow for the addition of sugar to the concentrated Labrusca type grape juice in retail containers, for which there exists a large market in North America, this standard should be split into a standard for "Sweetened Labrusca Type Concentrated Grape Juice".

51. As regards sub-section 9.1.1 dealing with juices containing added sugar in excess of 25 g/kg, the Group adopted the editorial amendment proposed by the U.K. The amended text appears in Appendix III to this Report.

Country of Origin

52. The Group amended section 9.5 "Country of origin" in the same way as in the case of the standard for grape juice and consequently deleted sub-section 9.5.1.

Additional Requirements

53. The Group agreed to insert an additional labelling requirement according to which the presence of sulphur dioxide had to be declared on the label if its level exceeded 10 mg/kg.

Degree of Concentration

54. The delegation of France was of the opinion that the standard as presently drafted, giving a minimum requirement for Brix, but at the same time allowing that the juice "may have been concentrated and later reconstituted", made it possible to market, under the name of the fruit juice, a product which had been obtained from a concentrate over-diluted with water or sugar-syrup. To prevent this, in the opinion of the delegation of France, it was necessary to make changes to the standard so that contractors purchasing a concentrate with a view to re-constituting a juice would be informed, on a
compulsory basis, by the supplier as to the exact degree of concentration, expressed by a volumetric ratio of the original juice.

55. In reply, the Chairman stated that he shared the concern of the delegation of France regarding the possibility of over-diluting a juice when reconstituting a concentrate to the Brix figure given in the single strength juice standard. While he agreed that making concentrates on a volumetric basis - as suggested by the French delegation - was technically possible, he did not think that it was commercially practicable. Any juice going into the concentrating apparatus would have variations in density and, therefore, the concentrate obtained by removing always the same proportion of water should also show these variations and a buyer purchasing, e.g. a 1:6 concentrate, would receive concentrates with different Brix values depending on the concentrate receiving tank from which his order would be executed. He would, furthermore, have no possibility of control on the degree of concentration. The Chairman, therefore, thought that trade and industry would continue to purchase concentrates on the basis of soluble solids content as determined by densiometric or refractometric methods. He was satisfied that the problem of over-dilution could be satisfactorily dealt with by stipulating a higher Brix for reconstituted juice than the figure adopted as minimum value for single strength juice, as had indeed been done in the case of the standard for orange juice. In this way a possible over-dilution in some cases would be balanced by a possible concentrating effect in other cases. Nevertheless, the delegation of France reserved its position, as contained in its written comments (CX/FJ 73/4 Add. 1) for the reasons explained therein and made a reservation regarding this provision.

56. The Group did not discuss this question any further and decided to leave section "Degree of Concentration" unchanged.

Bulk Packs

57. The Group decided to make the same amendments as in the case of the standard for grape juice.

Status of the Standards

58. Taking into account the substantial changes which it had made, the Group decided to return the draft standards for single strength and concentrated grape juices to Step 6 of the Procedure for a further round of government comments.

59. The Group requested the Secretariat to ask the Executive Committee to consider whether the draft standard for sweetened Labrusca type Concentrated Grape Juice could be considered to be at Step 6 of the Procedure, in view of the fact that most of its criteria had already been examined by governments.

60. The Group also decided, in the light of the decisions taken, to request the Commission to nullify the two standards for the single strength and concentrated Vinifera type grape juices, which it had held at Step 8 of the Procedure at its Ninth Session (6-7 November 1972).

61. The Group further decided, taking into account the above decisions, to entrust the Drafting Group, who had already commenced the re-editing of the three revised standards, to complete the re-editing of these standards and to attach them to the Final Report in place of the two draft standards which appeared as Appendices II and III in the Draft Report.

Consideration of the Proposed Draft Standard for Pineapple Juice Preserved Exclusively by Physical Means
62. The Group had before it for consideration at Step 4 of the Procedure the above mentioned standard as contained in ALINORM 72/14, Appendix VIII (AGRI/WP.1/737, Appendix VIII), as well as government comments thereon as contained in CX/FJ 73/5 (AGRI/WP.1/GE.4/R.4) and CX/FJ 73/LIM. (AGRI/WP.1/gB.4/i/CHP,1).

**Description**

63. The Group agreed with the proposal made by the delegation of Poland in their written comments, to include the author's name in the botanical name of the fruit so as to read *Ananas comosus* L. Merrill and amended the standard accordingly.

64. The delegation of the USA proposed that filtered juice be excluded from the standard and suggested that the first part of the description section could be amended as follows: "Unfermented but fermentable juice, intended for direct consumption, obtained by a mechanical process, which may include centrifuging but not filtering". The reasons for this proposal were that by excluding filtration processes, and including the possibility of centrifuging the juice, this would allow sufficient insoluble solids to remain and still leave the juice turbid.

**Soluble Solids**

65. The delegation of Australia stated that the minimum level of 10.5° Brix was too high for their industry to achieve due to seasonal conditions. It, therefore, proposed that the minimum level be lowered to 10° Brix. The delegation of the USA stated that whereas it could agree to a lower minimum it felt that there should be a higher level for reconstituted juice and proposed the level of 13.5 Brix. Although some delegations expressed themselves as in favour of maintaining the minimum level of 10.5° Brix, the Group agreed that the minimum level should be 10° Brix and, in the case of a pineapple juice made in whole or in part from reconstituted juice, the minimum °Brix (exclusive of added sugars) should be 13.5° Brix. It was further agreed that an additional clause be added in the standard to include this latter point.

**Addition of Sugars**

66. The Group agreed to allow for the addition of sugars in view of the varying climatic conditions existing in different growing areas and, therefore, included a provision similar to that in the Recommended International Standard for Orange Juice (CAC/RS 45-1971).

**Insoluble Solids**

67. In the light of the decision which it had made in the Description Section, the Group decided to delete the provision for insoluble solids.

**Acidity**

68. In the absence of any technological justification for its inclusion, the Group agreed to delete this provision which would have set a maximum of 13.5 g/kg on the acidity, expressed as anhydrous citric.

**Antifoaming Agents**

69. The Group noted the technological justification for dimethyl polysiloxane as presented by the USA in their written comments. Several delegations expressed themselves in favour of retaining this addition in the standard and the Group agreed, therefore, to maintain the existing text. The delegation of the Federal Republic of Germany reserved its position concerning the use of dimethyl polysiloxane in pineapple juice because they needed more information on the toxicological evaluation, which is
only a temporary one at present, pending a re-evaluation of this substance by the Joint FAO/WHO Expert Committee on Food Additives. The delegations of Belgium and France questioned the technological need for the use of dimethyl polysiloxane.

Acidifying Agents

70. The Group agreed with the proposal of the U.K., as made in their written comments, to provide for the use of citric and malic acids as acidifying agents with a maximum level of use limited by GMP and amended the standard accordingly. The delegation of Canada stated that it was not in favour of the addition of acids in pineapple juices and could only approve such an addition providing it was declared on the label. The delegation of Belgium supported the viewpoint of the delegation of Canada. The delegations of the Federal Republic of Germany and Italy reserved their positions on the addition of acids to fruit juices.

Contaminants

71. The Group agreed to provide for the presence of sulphur dioxide in the final product to an amount not exceeding 10 mg/kg after receiving information from the Swiss delegation that certain yeasts could produce sulphur dioxide in fruit juice and also because of the requests from some delegations to cover a residue from the chemical sterilization of plants and machinery. The Group also agreed to remove the square brackets from the Contaminants Section including the "total metal content" figure of 20 and to change the footnote to indicate that the limits continued to be under review. It further agreed to make reference in the footnote to the relevant discussions concerning contaminants in this Report.

Hygiene

72. The Group amended section 5.2(b) in the same way as had been done in the standards for grape juice.

Same of the Food

73. The delegation of the U.K. proposed that an additional clause be included in this section, similar to the one in the orange juice standard, but with a ratio of the total soluble solids to the total titratable acid of 12:1.

74. The Group agreed that it was desirable to declare added sugar on the label when it exceeds 15 g/kg. The delegation of Switzerland stated that it could agree to the proposed 12:1 ratio, but that the word "may" should be changed to "shall" in order to make it compulsory to use the expression "sweetened" if the ratio was above 12:1.

75. Several delegations considered that the words "sugar added" was sufficient to indicate that the taste of the product had been adjusted and that there was no need for the use of the term "sweetened".

76. The Group agreed to include a provision in the standard to require a declaration of added sugar when it exceeds 15 g/kg, as in the orange juice standard, but not to provide for a "sweetened" category. The amended text appears in Appendix IV to this Report.

List of Ingredients

77. The Group amended this section so as to clarify that the water added for reconstitution in accordance with sub-section 2.1.2 need not be declared.

Country of Origin
78. The Group amended this section in the same way as it had done in the standards for grape juice.

Bulk Packs

79. It was agreed to bring this section into line with the amendments which had been made in the standards for grape juice.

Status of the Standard

80. The Group decided to advance the Proposed Draft Standard for Pineapple Juice to Step 5 of the Procedure.

Consideration of Data Supplied by Governments on Levels of Lead and Tin in Fruit Juices

81. The Group had before it a working paper containing data on levels of lead and tin in fruit juices (CX/FJ 73/6 (AGRI/WP.1/GE.4/R.5) and CX/FJ 72/LIM.1 (AGRI/WP.1/GE.4/CRP.3)) and a working paper on lead in fruit juices prepared for the Ninth Session of the Group by the delegation of the Federal Republic of Germany (CX/FJ 72/7). The purpose of the paper was to provide the Group with sufficient data on the basis of which to reach conclusions concerning provisions for lead and tin included in Step 9 of the Codex standards for fruit juices, which were scheduled for review in 1973 or which had been included on a temporary basis pending review of analytical data.

82. The delegation of Poland was of the opinion that analytical data made it now possible to revise the provision of some contaminants in concentrated juices, which were expressed on the basis of the reconstituted juice and based on the limits included in the single strength juices. The delegation of Poland was, therefore, all the more opposed to continuing to provide for contaminants in concentrates based on data from single strength juices. The Group of Experts noted that there were a number of factors influencing the levels of tin and lead in fruit juices and that, in the case of lead, environmental factors appeared to be of significance.

83. The Group's attention was drawn by the delegation of the Netherlands, to toxicological investigations in tin in progress in their country on the basis of which it might be possible for the Expert Committee on Food Additives to establish an acceptable load for tin, an element which appeared to be of a certain toxicological significance. In the view of some delegations, on the other hand, levels of 250 mg/kg juice appeared to be acceptable from a health point of view. The Group also noted that the use of lacquered containers may not afford adequate protection against contamination of fruit juices and appeared to cause problems of higher lead content and organoleptic changes, which were not desirable.

84. As regards fruit juices packed in tinned containers, it was evident from available analytical data that storage time, as well as other factors, had an effect on the levels of tin. Therefore, not only should the methods of analysis used to obtain the data be specified but the time after filling should also be stated. The delegations of France, Denmark and the Federal Republic of Germany, considering that as contamination depended on the time which had elapsed after filling of the container, thought that declaration of the date of filling in clear would be of interest, especially in the case of metal containers.
The observer from the EEC informed the Group that the Council of the EEC had the
matter of contamination of fruit juices and nectars under study, which would be
completed by the middle of 1974. The results of the study would be available for use by
the Group.

85. It was pointed out by the delegations of the Federal Republic of Germany and
Finland that present levels of tin in fruit juices were several orders higher than natural
levels and that this situation should not continue. Indeed, the Group should look at new
alternative means of packaging as a solution of the problem of contamination of fruit
juices by tin and lead. In the view of the French delegation this research should primarily
concern tin cans currently in use. The delegation of Switzerland was of the opinion that it
was of little use to collect further analytical data as in all probability they would lead to a
need to raise the levels of tin in fruit juices. As this contaminant was probably a hazard
to health, the answer lay in examining the question of appropriate packaging of fruit
juices, even if as a result any technologically desirable effect of tin would be lost.

86. On the other hand, it was argued that available data did suggest that some of the
maximum levels for tin and lead at present included in the various standards did not
cover the products moving in international trade. This was particularly so with lead.
Unless the Codex standard took them into account, the Codex standard would exclude
from trade juices which were still acceptable.

87. The Group realized that it could follow two approaches to the problem of
selecting appropriate maximum levels for contaminants which mainly arose from the
container used. It could take into account all available present and future analytical data
and base its recommendation on these, bearing in mind its responsibility to ensure a free
movement of foods in trade and the possibility of rejection of some foods on the basis of
levels of contaminants found in them. It could also adopt the attitude that,
notwithstanding any possible rejection of some food, maximum levels for contaminants
should serve to check trends in increase of contamination of food and act as a
motivation for industry to look for alternative methods of packaging and for those
concerned with the pollution of the environment to take appropriate steps to reduce such
pollution. It was understood that with either approach maximum levels would have to be
endorsed from a safety to health point of view.

88. There was general agreement that it was desirable to reduce levels of
contaminants in fruit juices as far as possible. As regards tin, the Group agreed that it
needed the evaluation by the Joint FAO/WHO Expert Committee on Food Additives of
the toxicological data arising from investigations currently in progress before it can
consider changing the maximum level of that contaminant in the various standards for
fruit juices. Recognizing that contamination by tin was related to current practices of
packing in tinned containers, the Group urged regulating and research officials and the
fruit juice industry to take steps and intensify efforts to ensure that levels of tin, lead and
other contaminants in fruit juices be reduced or eliminated by alternate or improved
methods of packaging. The Group considered that the footnotes in Step 9 standards
relating to tin could remain unaltered. The delegation of Finland reiterated its reserve
regarding the level of tin in fruit juices.

89. As regards lead in lemon and tomato juices, the Group examined the available
analytical data noting that, on the basis of those data, the maximum level for lead in
tomato juice should be raised. However, contamination by lead was not only a result of
canning but also arose as a result of environmental pollution. It was important, therefore,
not only for industry to carry on more research into current methods of packaging but
also for authorities to take steps to reduce contamination of the environment by lead. The Group agreed not to change the maximum levels for lead in tomato and lemon juices but to await further results of monitoring, preferably using standardized methods and to re-examine the problem of lead at its next session. In the meantime, the limits would remain unchanged.

Reconsideration of the paper "Conditional Demineralized Water for the Production of Fruit Juices from Fruit Juice Concentrate"

90. The Group had before it for reconsideration the above mentioned document (CX/FJ 72/15 (AGRI/WP.739)), prepared by the Federal Republic of Germany following the Sixth Session of the Group, at which some delegations expressed concern about the water that was used for reconstitution of fruit juices (ALINORM 70/14 : AGRI 323; AGRI/WP.1/640). The delegation of the Federal Republic of Germany explained that the water used for reconstitution should be suitable for the purpose, and although there would be no need for a standard for water, it felt that the available information on water quality could be put into a Code of Practice.

91. Some delegations considered that the quality of water for processing should be a concern of the Group and that it was likely to be important in the future. These delegations proposed that the current information on water quality, particularly international and national standards, should be summarized in a document and presented to the Group for further study. A number of delegations asked that this subject should not take precedence over work still to be done on draft standards in the future work programme. The delegations of Denmark, the Federal Republic of Germany and Yugoslavia agreed to prepare a document along the lines mentioned above for the consideration of the Group at a future meeting.

Further consideration of the paper "Ingredient Juices"

92. The Group had before it for consideration the above mentioned document contained in CX/FJ 72/8 (AGRI/WP.1/733). In introducing the subject, the delegation of the United Kingdom suggested that there was a need for the position of ingredient juices to be clarified, and possibly for them to be covered by standards. It suggested that ingredient juices might be considered by the Group in the following ways:

(a) by adapting the existing standards for juices preserved exclusively by physical means to cover physically preserved ingredient juices and elaborating separate standards for chemically preserved juices. It did not follow automatically that any standards to be developed for physically preserved ingredient juices would be the same as those now being elaborated;

(b) by elaborating standards for ingredient juices covering preservation by both physical and chemical means and for both single strength and concentrated juices;

(c) by elaborating standards for the end-product, e.g. soft drinks, but this would not be satisfactory as the responsibility for elaborating commodity standards is in the hands of numerous committees and the Group could only confine itself to those commodities for which it had the terms of reference. Also, there are, no doubt, other commodities in which ingredient juices are used but which are not the subject of standards; thus the field of ingredient juices could not be covered;

(d) by not doing anything.

93. Some delegations were in favour of the Group elaborating standards for ingredient juices because there were juices in trade, which differed from those provided
for in Codex standards. Other delegations felt that the Group should not interest itself in ingredient juices which were generally not for direct consumption. Considering the divergent views, the Group asked all delegations to give further consideration to this subject and that it would discuss it at the next session in 1974.

Consideration at Step 2 of the Proposed Draft Standard for Blackcurrant Juices Preserved Exclusively by Physical Means

94. The Group had before it for consideration the above mentioned document contained in CX/FJ 73/8 (AGRI/WP.1/GE.4/R.7). The delegation of Denmark remarked that some countries wished to provide for the addition of more sugar to Blackcurrant Juice than proposed in the draft standard. The Group agreed that the proposed draft standard for Blackcurrant Juice should be re-drafted by the Secretariat in the light of decisions taken during the session and submitted to governments for comment at Step 3 of the Codex Procedure.

Consideration at Step 2 of the Proposed Draft Standard for Clear Blackcurrant Nectar Preserved Exclusively by Physical Means

95. The Group had before it for consideration the above mentioned document contained in CX/FJ 72/12 (AGRI/WP.1/GE.4/R.9). The Group agreed that the proposed draft standard for clear Blackcurrant Nectar should be re-drafted by the Secretariat in the light of decisions taken during the session and submitted to governments for comment at Step 3 of the Codex Procedure.

Consideration at Step 2 of the Proposed Draft Standard for Small Fruit Nectars Preserved Exclusively by Physical Means

96. The Group had before it for consideration the above mentioned document contained in CX/FJ 72/10 (AGRI/WP.1/715). The Group agreed that the proposed draft standard for Small Fruit Nectars should be re-drafted by the Secretariat in the light of decisions taken during the session and submitted to governments for comment at Step 3 of the Codex Procedure.

Consideration at Step 2 of the Proposed Draft Standard for Citrus Based Drinks with High Natural Juice Content

97. The Group had before it for consideration the above mentioned document contained in CX/FJ 72/9 (AGRI/WP.1/716). At the request of the delegation of Spain, the Group decided to postpone the discussion on this standard to a future meeting.

Election of Chairman and Vice-Chairman until the end of the Eleventh Session

98. The Group unanimously re-elected Professor Dr. W. Pilnik (Netherlands) to serve as Chairman and Mr. W. Orlowski (Poland) to serve as Vice-Chairman until the end of the Eleventh Session.

Date and Place of Next Meeting

99. The Group took note that its next session would be held in Rome, probably in November 1974.

Other Business

100. The delegation of Finland drew the attention of the Group to the decision of the UNECE Committee on Agricultural Problems (Working Party on the Standardization of Perishable Foodstuffs) to mark in 1974 its 25 years of activity in the field of international trade standards, by asking governments to plan activities to give widest possible
publicity to the work. The Working Party was to be represented at the 19th International Congress of Horticultural Science which is to be held in Warsaw in September 1974. He asked delegations to take every opportunity to take part in the programme of the Congress and he would welcome short papers to do with the quality of Fruit Juices for presentation at the Congress.

The General Principles fog Food Additives

101. The Group noted that the Codex Alimentarius Commission had adopted the above General Principles (CX/FJ 72/2), elaborated by the Codex Committee on Food Additives and that the Committee had requested all Codex Commodity Committees to give due consideration to the technological necessity for additives in the light of the above General Principles.
APPENDIX I

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APPENDIX II

DRAFT STANDARD FOR GRAPE JUICE
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS ¹
(At step 6)

¹ For the purpose of this standard and at this time preservation by physical means does not include ionizing radiation.

1. **DESCRIPTION**

Unfermented but fermentable juices, intended for direct consumption, obtained by a mechanical process from sound, ripe grapes preserved exclusively by physical means. The juices may be turbid or clear. The juice may be clarified and corrected for acidity. The juices may have been concentrated and later reconstituted with water suitable for the purpose of maintaining the essential composition and quality factors of the juices.

2. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

2.1 **Soluble solids**

The soluble grape solids content of grape juices shall be not less than 15 percent m/m as determined by refractometer at 20°C, uncorrected for acidity and read as °Brix on the International Sucrose Scales.

2.2 **Ethanol content**

The ethanol content shall not exceed 5 g/kg.

2.3 **Volatile acids**

The volatile acids content shall not exceed 0.4 g/kg, expressed as acetic acid.

2.4 **Organoleptic properties**

The product shall have the characteristic colour, aroma and flavour of the variety or varieties of grapes from which it is made. Natural volatile grape juice components may only be restored to the same type of grape juice from which such natural grape juice components have been removed.

2.5 **Use of Concentrates**

The addition of concentrate to juice is permitted. If a juice is made of one variety only, only concentrate of that variety may be used.

2.6 **Use of carbon dioxide**

The grape juice may be "carbonated".

3. **FOOD ADDITIVES**

The following provisions in respect of food additives have been endorsed by the Codex Committee on Food Additives:
3.1 Citric acid
3.2 Malic acid
3.3 L-Ascorbic acid
3.4 Pure carbon dioxide

3.5 Processing Aids
3.5.1 Clarifying and filtering agents as approved by the Codex Alimentarius Commission and used in accordance with good manufacturing practices.
3.5.2 Pure precipitated calcium carbonate.
3.5.3 Potassium tartrate
3.5.4 Calcium hydroxide
3.5.5 Pure vegetable carbon
3.5.6 Pure nitrogen
3.5.7 Pure carbon dioxide

4. CONTAMINANTS

The following provisions in respect of contaminants have been endorsed by the Codex Committee on Food Additives, except as otherwise indicated.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Maximum Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic (As)</td>
<td>0.2 mg/kg</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>0.3 mg/kg</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>5 mg/kg</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>5 mg/kg</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>15 mg/kg</td>
</tr>
<tr>
<td>Tin (Sn)</td>
<td>150 mg/kg (temporarily endorsed)</td>
</tr>
<tr>
<td>Total metal content precipitable by potassium hexacyanoferrate (II)</td>
<td>17 mg/kg, expressed as Fe</td>
</tr>
</tbody>
</table>

These limits to remain under review. See paras 81-89 of ALINORM 74/14.

4.8 The amount of total sulphur dioxide which may be present in the final product shall not exceed 50 mg/kg. The maximum amount will be reduced to 10 mg/kg on 1 July 1976.

4.9 Mineral impurities insoluble in 10% hydrochloric acid shall not exceed 20 mg/kg.

5. HYGIENE

The following provisions in respect of the food hygiene of this product have been endorsed by the Codex Committee on Food Hygiene.

5.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Recommended International Code of Hygienic Practice for Canned Fruit and Vegetable Products (Ref. No. CAC/RCP 2-1969) and the Recommended International Code of Hygienic Practice for Quick Frozen Fruits, Vegetables and their Juices (REF. No. CAC/RCP ....).
5.2 When tested by appropriate methods of sampling and examination, the product:
(a) shall be free from micro-organisms capable of development under normal conditions of storage; and
(b) shall not contain any substances originating from micro-organisms in amounts which may represent a hazard to health.

6. **WEIGHTS AND MEASURES**

**Fill of container**

**Minimum fill**

The grape juice shall occupy not less than 90% v/v of the water capacity of the container. The water capacity of the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7. **LABELLING** (subject to endorsement by the Codex Committee on Food 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**

The name of the food shall be "Grape juice" immediately preceded or followed by a varietal designation except in those countries where national authorities determine that the omission of such a varietal designation would not mislead or deceive the consumer. The varietal designation shall consist of the name of the variety of grapes from which the juice was derived. If two or more varieties have been blended, the name of the variety present in the greatest proportion shall be accompanied by the words "and other varieties".

7.2 **List of Ingredients**

7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion, except that water added for the reconstitution of juice from concentrate and substances covered by sub-section 3.5 need not be declared.

7.2.2 In the case of grape juices made from concentrates, the fact of reconstitution shall be declared in the list of ingredients as the first ingredient as follows; "grape juice made from concentrate" or "reconstituted grape juice" or "grape juice made from concentrated grape juice".

7.2.3 The addition of L-Ascorbic acid shall be declared in the list of ingredients as:
(a) "L-Ascorbic acid as antioxidant" or
(b) "antioxidant"

7.3 **Net contents**

The net contents shall be declared by volume in one or more of the following systems of measurement: "Metric ("Système Internationa"), US or British units, 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**

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

7.6 **Additional requirements**

The following additional specific provisions shall apply:

7.6.1 No fruit or fruit juice may be represented pictorially on the label except grape or grape juice.

7.6.2 The term "carbonated" or an equivalent term in other languages shall be declared on the label if the grape juice contains more than 2 g/kg of carbon dioxide.

7.6.3 No claims shall be made in respect of "Vitamin C" nor shall the term "Vitamin C" appear on the label unless the product contains such quantity of "Vitamin C" as would be accepted by national authorities as warranting such claim or the use of such term.

7.6.4 Where grape juice requires to be kept under conditions of refrigeration, there shall be information for keeping and, if necessary, thawing of the product.

7.6.5 The presence of sulphur dioxide shall be declared on the label if it exceeds 10 mg/kg.

7.7 **Bulk packs**

In the case of grape juice in bulk, the information contained in sections 7.1 to 7.6.3 should either be given on the container or be given in accompanying documents except that the name of the product and the name and address of the manufacturer or packer should appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

8. **METHODS OF ANALYSIS AND SAMPLING**

Will be completed later.
1. DESCRIPTION

1.1 Product Definition

Concentrated grape juice is the unfermented but fermentable juice, preserved exclusively by physical means, obtained by the process of concentration (as defined in section 1.2) from the raw materials as described in section 1.3. The product may be turbid or clear, but is substantially free of cream of tartar crystals. The concentrated grape juice may be clarified and corrected for acidity.

1.2 Process Definition

The process of concentration consists of the physical removal of water until the product has a soluble grape solids content of not less than 30 per cent by weight as determined by refractometer at 20°C uncorrected for acidity and read as °Brix on the International Sucrose Scales and includes (i) the addition of juice, or concentrate or water suitable for the purpose of maintaining the essential composition and quality factors of the concentrate, and (2) the addition of natural volatile grape juice components where these have been previously removed.

1.3 Raw material

The raw material from which this product is obtained is unfermented but fermentable grape juice obtained by a mechanical process from sound, ripe grapes.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Requirements for the juice after reconstitution

The product obtained by reconstituting the concentrated grape juice in accordance with section 7.7 of this standard shall comply with the provisions of the standard for Grape Juices Preserved Exclusively by Physical Means (see Appendix II to this Report).

2.2 Use of carbon dioxide

The concentrated grape juice may be "carbonated".

3. FOOD ADDITIVES

The following provisions in respect of food additives have been endorsed by the Codex Committee on Food Additives:

<table>
<thead>
<tr>
<th>Food additive</th>
<th>Maximum level of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malic acid</td>
<td></td>
</tr>
<tr>
<td>Citric acid</td>
<td>limited by GMP</td>
</tr>
<tr>
<td>L-Ascorbic acid</td>
<td></td>
</tr>
<tr>
<td>Pure carbon dioxide</td>
<td></td>
</tr>
</tbody>
</table>
3.5 Processing Aids

3.5.1 Clarifying and filtering agents as approved by the Codex Alimentarius Commission and used in accordance with good manufacturing practices.

3.5.2 Pure precipitated calcium carbonate

3.5.3 Potassium tartrate

3.5.4 Calcium hydroxide

3.5.5 Pure vegetable carbon

3.5.6 Pure nitrogen

3.5.7 Pure carbon dioxide

4. CONTAMINANTS

4.1 When grape juice concentrate is reconstituted in accordance with section 7.7 of this standard, the limits of contaminants shall not exceed those laid down in section 4 of the Draft Standard for Grape Juices Preserved Exclusively by Physical Means (see Appendix II of this Report).

4.2 The amount of total sulphur dioxide which may be present in the concentrate shall not exceed 50 mg/kg. The maximum amount will be reduced to 10 mg/kg on 1 July 1976.

5. HYGIENE

The following provisions in respect of the food hygiene of this product have been endorsed by the Codex Committee on Food Hygiene:

5.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Recommended International Code of Hygienic Practice for Canned Fruit and Vegetable Products (Ref. No. CAC/RCP 2-1969) and the Recommended International Code of Hygienic Practice for Quick Frozen Fruits, Vegetables and their Juices (Ref. No. CAC/RCP ...).

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

(a) shall be free from micro-organisms capable of development under normal conditions of storage; and

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

6. WEIGHTS AND MEASURES

Fill of container

Minimum fill (exclusive of bulk packs)

The concentrated grape juice shall occupy not less than 90% v/v of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7. LABELLING (Subject to endorsement by the Codex Committee on Food 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

The name of the food shall be "Concentrated grape juice" immediately preceded or followed by a varietal designation except in those countries where national authorities determine that the omission of such a varietal designation would not mislead or deceive the consumer. The varietal designation shall consist of the name of the variety of grapes from which the concentrated juice was derived. If two or more varieties have been blended, the name of the variety present in the greatest proportion shall be accompanied by the words "and other varieties".

7.2 List of Ingredients

7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion, except that the components mentioned in sub-section 1.2 and substances covered by sub-section 3.5 need not be declared.

7.2.2 The addition of L-Ascorbic acid shall be declared in the list of ingredients as:
   (a) "L-Ascorbic acid as antioxidant" or
   (b) "antioxidant"

7.3 Net Contents

The net contents shall be declared by volume in either the metric ("Système International"), U.S. or British units 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

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

7.6 Additional Requirements

The following additional specific provisions shall apply:

7.6.1 No claims shall be made in respect of "Vitamin C" nor shall the term "Vitamin C" appear on the label unless the product contains such quantity of "Vitamin C" as would be accepted by national authorities as warranting such claim or the use of such term.

7.6.2 The term "carbonated" or an equivalent term in other languages shall be declared on the label if the grape juice contains more than 2 g/kg of carbon dioxide.

7.6.3 No fruit or fruit juice may be represented pictorially on the label except grapes or grape juice.

7.6.4 Where concentrated grape juice requires to be kept under conditions of refrigeration, there shall be information for keeping and, if necessary, thawing of the product,
7.6.5 The presence of sulphur dioxide shall be declared on the label if it exceeds 10 mg/kg.

7.7 **Degree of concentration**

Instructions for dilution shall be given on the container by stating the percentage of soluble grape solids, by weight, as determined by refractometer at 20°C, uncorrected for acidity, and read as °Brix on the International Sucrose Scales or in the case of repackaged products, by stating the number of parts by volume of water which are required to be added to one part by volume of the concentrated juice to obtain juice which complies at least with the minimum requirements of the Standard for Grape Juices Preserved Exclusively by Physical Means.

7.8 **Bulk Packs**

In the case of concentrated grape juice in bulk, the information contained in sections 7.1 to 7.7 should either be given on the container or be given in accompanying documents except that the name of the product and the name and address of the manufacturer or packer should appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

8. **METHODS OF ANALYSIS AND SAMPLING**

Will be completed later.
APPENDIX IV

DRAFT STANDARD FOR SWEETENED CONCENTRATED LABRUSCA TYPE GRAPE JUICE PRESERVED EXCLUSIVELY BY PHYSICAL MEANS ¹

(At Step ...)

¹ For the purpose of this standard and at this time preservation by physical means does not include ionizing radiation.

1. SCOPE

This standard applies only to the sweetened concentrate which is made from Labrusca type grape juices and which has the essential flavour characteristics of Labrusca type grapes and which is prepackaged for retail sale.

2. DESCRIPTION

2.1 Product Definition

Concentrated grape juice is the unfermented but fermentable juice preserved exclusively by physical means, obtained by the process of concentration (as defined in section 2.2), from the raw materials as described in section 2.3. The product may be turbid or clear. The concentrated grape juice may be clarified with the aid of clarifying agents and filtering aids in accordance with section 4.

2.2 Process Definition

The process of concentration consists of the physical removal of water until the product has a soluble grape solids content of not less than 30 per cent by weight as determined by refractometer at 20°C uncorrected for acidity and read as °Brix on the International Sucrose Scales (exclusive of added sugar) and includes the addition of (1) juice or concentrate or water suitable for the purpose of maintaining the essential composition and quality factors of the concentrate, and (2) the addition of natural volatile grape juice components where these have been previously removed.

2.3 Raw material

The raw material from which this product is obtained is unfermented but fermentable grape juice obtained by a mechanical process from sound, ripe Labrusca type grapes.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Requirements for the juice after reconstitution

The product obtained by reconstituting the concentrated grape juice in accordance with section 8.7 of this standard shall comply with the provisions of the Standard for Grape Juices Preserved Exclusively by Physical Means (see Appendix II to this Report) allowing for the addition of sugar to section 3.2 of this standard.

3.2 Sugars

The following sugars may be added: sucrose (white sugar), dextrose and dried glucose syrup, as defined by the Codex Alimentarius Commission. The addition of fructose is also permitted.

3.3 Use of carbon dioxide

The concentrated grape juice may be "carbonated".
4. **FOOD ADDITIVES**
   
   The following provisions in respect of food additives have been endorsed by the Codex Committee on Food Additives:

<table>
<thead>
<tr>
<th>Maximum level of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 L-Ascorbic acid</td>
</tr>
<tr>
<td>4.2 Pure carbon dioxide</td>
</tr>
<tr>
<td>4.3 Processing Aids</td>
</tr>
<tr>
<td>4.3.1 Clarifying and filtering agents as approved by the Codex Alimentarius Commission and used in accordance with good manufacturing practices.</td>
</tr>
<tr>
<td>4.3.2 Pure vegetable carbon</td>
</tr>
<tr>
<td>4.3.3 Pure nitrogen</td>
</tr>
<tr>
<td>4.3.4 Pure carbon dioxide</td>
</tr>
</tbody>
</table>

5. **CONTAMINANTS**

   When Labrusca type grape juice concentrate is reconstituted in accordance with Section 8.7 of this standard, the limits of contaminants shall not exceed those laid down in section 4 of the standard for Grape Juice Preserved Exclusively by Physical Means (see Appendix II to this Report).

6. **HYGIENE**

   The following provisions in respect of the food hygiene of this product have been endorsed by the Codex Committee on Food Hygiene.

   6.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Recommended international Code of Hygienic Practice for Canned Fruit and Vegetable Products (Ref. No. CAC/RCP 2-1969) and the Recommended International Code of Hygienic Practice for Quick Frozen Fruits, Vegetables and their Juices (Ref. No. CAC/RCP ...).

   6.2 When tested by appropriate methods of sampling and examination, the product:
      
      (a) shall be free from micro-organisms capable of development under normal conditions of storage; and
      
      (b) shall not contain any substances originating from micro-organisms in amounts which may represent a hazard to health.

7. **WEIGHTS AND MEASURES**

   **Fill of Container**

   **Minimum Fill**

   The concentrated grape juice shall occupy not less than 90% v/v 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.

8. **LABELLING** (Subject to endorsement by the Codex Committee on Food 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:

8.1 **The Name of the Food**

The name of the food shall be "Sweetened concentrated Grape Juice" immediately preceded or followed by a varietal designation, except in those countries where national authorities determine that the omission of such a varietal designation would not mislead or deceive the consumer. The varietal designation shall consist of the name of the variety of grapes from which the concentrated juice was derived. If two or more varieties have been blended, the name of the variety present in the greatest proportion shall be accompanied by the words "and other varieties".

8.2 **List of Ingredients**

8.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion, except that the components mentioned in sub-section 2.2 and substances covered by sub-section 4.3 need not be declared.

8.2.2 The addition of L-Ascorbic acid shall be declared in the list of ingredients as:

- (a) "L-Ascorbic acid as antioxidant" or
- (b) "antioxidant"

8.3 **Net Contents**

The net contents shall be declared by volume in either the metric ("Système International"), U.S. or British units 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**

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

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

8.6 **Additional Requirements**

The following specific provisions shall apply:

8.6.1 No claims shall be made in respect of "Vitamin C" nor shall the term "Vitamin C" appear on the label unless the product contains such quantity of "Vitamin C" as would be accepted by national authorities as warranting such claim or the use of such term.

8.6.2 The term "carbonated" or an equivalent term in other languages shall be declared on the label if the grape juice contains more than 2 g/kg of carbon dioxide.

8.6.3 No fruit or fruit juice may be represented pictorially on the label except Labrusca grapes or Labrusca grape juice.
8.6.4 Where concentrated grape juice requires to be kept under conditions of refrigeration, there shall be information for keeping and, if necessary, thawing of the product.

8.7 Degree of Concentration

Instructions for dilution shall be given on the prepackaged products, by stating the number of parts by volume of water which is required to be added to one part by volume of the concentrated juice in order to obtain minimum 15° Brix, exclusive of added sugar.

9. METHODS OF ANALYSIS AND SAMPLING

(To be finalized later).
1. DESCRIPTION

Unfermented but fermentable juice, intended for direct consumption, obtained by a mechanical process, which may include centrifuging but not filtering, from the flesh or parts thereof, with or without core material of sound, ripe pineapple (Ananas comosus L. Merrill) preserved exclusively by physical means. The juice may have been concentrated and later reconstituted with water suitable for the purpose of maintaining the essential composition and quality factors of the juice.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Soluble Solids

2.1.1 The soluble pineapple solids content of pineapple juice (exclusive of added sugars) shall not be less than 10% by weight as determined by refractometer at 20°C, uncorrected for acidity and read as °Brix on the International Sucrose Scales.

2.1.2 Where the juice has been obtained using concentrated juice with the addition of water the soluble pineapple solids content (exclusive of added sugars) shall be not less than 13.5% by weight as determined by refractometer at 20°C, uncorrected for acidity and read as °Brix on the International Sucrose Scales.

2.2 sugars

The following sugars may be added: sucrose (white sugar), dextrose and dried glucose syrup, as defined by the Codex Alimentarius Commission. The addition of fructose is also permitted. The total quantity of sugars added shall not exceed 50 g/kg. The addition of sugars is not permitted when the juice has been acidified in accordance with section 3.2.

2.3 Ethanol Content

The ethanol content shall not exceed 3 g/kg.

2.4 Organoleptic Properties

The product shall have the characteristic colour, aroma and flavour of pineapple juice. Natural volatile pineapple juice components may be restored to any pineapple juice from which natural pineapple juice components have been removed.

2.5 Use of Concentrates

The addition of concentrate to juice is permitted. Only concentrate from Ananas comosus L. Merrill may be used.

3. FOOD ADDITIVES

The following provisions in respect of food additives are subject to endorsement by the Codex Committee on Food Additives:
3.1 **Antifoaming Agent**
   - dimethyl polysiloxane
   - Maximum level of use: 10 mg/kg

3.2 **Acidifying Agents**
   - citric acid
     - limited by GMP
   - malic acid
     - limited by GMP

   The addition of these acids is not permitted when the juice contains sugars added in accordance with Section 2.2.

4. **CONTAMINANTS**

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

4.1 **Contaminants**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Maximum level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic (As)</td>
<td>0.2 mg/kg</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>0.3 mg/kg</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>5.0 mg/kg</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>5.0 mg/kg</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>15.0 mg/kg</td>
</tr>
<tr>
<td>Tin (Sn)</td>
<td>250.0 mg/kg</td>
</tr>
</tbody>
</table>

4.2 Total metal content precipitable by potassium hexacyanoferrate (II)

- Maximum level: 20 mg/kg expressed as Fe

1 These limits to remain under review. See paras 81-89 of ALINORM 74/14.

4.3 The amount of sulphur dioxide which may be present in the final product shall not exceed 10 mg/kg.

5. **HYGIENE**

The following provisions in respect of the food hygiene of this product have been endorsed by the Codex Committee on Food Hygiene:

5.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Recommended International Code of Hygienic Practice for Canned Fruit and Vegetable Products (ref. No. CAC/RCP 2-1969) and the Recommended International Code of Hygienic Practice for Quick Frozen Fruits, Vegetables and their Juices (Ref. No. CAC/RCP...).

5.2 When tested by appropriate methods of sampling and examination, the product:
   - (a) shall be free from micro-organisms capable of development under normal conditions of storage; and
   - (b) shall not contain any substances originating from micro-organisms in amounts which may represent a hazard to health.

6. **WEIGHTS AND MEASURES**

   **Fill of Container - Minimum Fill**

   The pineapple juice shall occupy not less than 90% v/v of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.
7. **LABELLING** (Subject to endorsement by the Codex Committee on Food 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 "pineapple juice".

7.1.2 If the quantity of added sugar or sugars exceeds 15 g/kg the words "x" added shall plainly and conspicuously accompany the name of the product where "x" represents the name or names of the sugar or sugars added.

7.2 **List of Ingredients**

7.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion, except that water added for reconstitution in accordance with sub-section 2.1.2 need not be declared.

7.2.2 In the case of pineapple juice made from concentrate, the fact of reconstitution shall be declared in the list of ingredients as follows: "pineapple juice made from concentrate" or "reconstituted pineapple juice" or "pineapple juice made from concentrated pineapple juice".

7.3 **Net Contents**

   The net contents shall be declared by volume in one or more of the following systems of measurement: Metric ("Système International"), U.S. or British units, 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**

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

7.6 **Additional Requirements**

   The following additional specific provisions shall apply:

7.6.1 No fruit or fruit juice may be represented pictorially on the label except pineapples or pineapple juice.

7.6.2 Where pineapple juice requires to be kept under conditions of refrigeration, there shall be information for keeping and, if necessary, thawing of the product.

7.7 **Bulk Packs**

   In the case of pineapple juice in bulk, the information contained in sections 7.1 to 7.6.2 should either be given on the container or be given in accompanying documents except that the name of the product and the name and address of the manufacturer or packer should appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.
8. METHODS OF ANALYSIS AND SAMPLING
   Will be completed later.