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ECONOMIC COMMISSION FOR EUROPE
COMMITTEE ON AGRICULTURAL PROBLEMS

Working Party on Standardization
of Perishable Foodstuffs
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REPORT OF THE SIXTH SESSION OF THE
JOINT ECE/CODEX ALIMENTARIUS GROUP OF EXPERTS ON
STANDARDIZATION OF FRUIT JUICES

Geneva, 27-31 October 1969

ALINORM 70/14

REPORT OF THE SIXTH SESSION OF THE
JOINT ECE/CODEX ALIMENTARIUS GROUP OF EXPERTS ON
STANDARDIZATION OF FRUIT JUICES

1. The Joint ECE/Codex Alimentarius Group of Experts on Standardization on Fruit Juices held its sixth session in Geneva from 27 to 31 October 1969 under the chairmanship of Professor W. Pilnik (Netherlands).
2. The Group of Experts was welcomed on behalf of the Executive Secretary of the Economic Commission for Europe and the Directors-General of FAO and WHO by the Deputy Director of the ECE/FAO Agriculture Division.
3. The session was attended by delegates and observers from countries and international organizations. A list of participants is contained in Annex I of this report. The Joint Secretaries were Mr. L.W. Jacobson of ECE and Mr. H.J. McNally of FAO.

Election of Officers

4. The Group of Experts unanimously re-elected as its Vice-Chairman Mr. W. Orłowski (Poland).

Adoption of Agenda

5. The Group of Experts adopted the Provisional Agenda, AGRI/WP.1/625; CODEX/FRUJU/69/1.

Matters arising from the Reports of (i) the Sixth Session of the Codex Alimentarius Commission, (ii) the Fifth and (iii) Sixth Sessions of the Codex Committee on Food Hygiene, (iv) the Sixth Session of the Codex Committee on Processed Fruits and Vegetables, (v) the Fourth Session of the Codex Committee on Food Labelling, and (vi) the Fourth Session of the Codex Committee on Methods of Analysis and Sampling.

6. The Group of Experts were informed of the main decisions of the Sixth Session of the Commission, particularly those which had a bearing on their work. The Group of Experts were similarly informed of the nature of the observations contained in the Reports of the Codex Committees mentioned above and agreed that these observations, which related mainly to specific points in, or sections of, the fruit juice standards, together with the relevant decisions of the Commission, should be dealt with when the Group discussed the standards in detail.

7. The Committee noted that there was one point emanating from the Report of the Fifth Session of the Codex Committee on Food Hygiene (ALINORM 69/13, paragraph 23) on which the Committee had asked the Group of Experts to express an opinion. The Group of Experts, at its Fifth Session, had asked the Codex Committee on Food Hygiene to develop a Code of Hygienic Practice for Frozen Fruit Juices, which would also cover chilled juices. The Codex Committee on Food Hygiene had decided, before proceeding with such a Code, to ask the Group of Experts whether the draft Code of Hygienic Practice for Deep Frozen Fruit and Vegetable Products might not be suitable also for frozen fruit juices, pointing out, however, that this draft Code did not cover chilled products. The Group of Experts considered the draft Code which was set out in Appendix V of ALINORM 69/13, and decided that it would be suitable, so far as hygiene matters were concerned, for frozen fruit juices. The Group of Experts noted that this Code, like all other Codes of Hygiene Practice, was advisory.

8. Some delegations drew attention to the recommendations of the draft Code relating to water supply section IV A (2) (b), pointing out that for reconstituted fruit juices and nectars, in addition to the requirements relating to potability contained in the WHO International Standards for Drinking Water, it would be desirable to consider the need for more stringent requirements concerning the maximum allowable limit of 45 mg/l for nitrate as NO₃ in the WHO standard. The Group of Experts considered that this raised technological considerations which would need to be examined in connection with the use of water in nectars, and in reconstituted juices. The Secretariat was requested to collect information on this subject from governments and interested international organizations for consideration by the Group.

Minimum fill of containers

9. The Group of Experts considered document CODEX/FEUJU/69/3; AGRI/WP.1/629 containing government comments on the question of whether the standards should contain a provision on minimum fill of containers. The Secretariat drew to the attention of the Group of Experts, that a provision for minimum fill of container existed in the standards for canned fruits and vegetables, but that this was not necessarily a reason for including a similar provision in the fruit juice standards, since the nature of the products was different. The delegation of the United States proposed that the minimum fill of the container should be not less than

90% of the water capacity of the container. Some delegations stated that although they thought that a provision on minimum fill of container was not necessary they would have no objection to the adoption of such a provision. The delegations of the Federal Republic of Germany, Finland and France reserved their positions regarding the stipulation of a figure for minimum fill of container and proposed that the container should be filled as far as technologically possible. The Group of Experts decided to adopt a minimum fill figure of 90% of the water capacity for all containers, including containers where the contents would be visible to the consumer.

Preservation of Fruit Juices by a combination of physical means and the use of chemical preservatives

10. The Group of Experts recognized that, in addition to fruit juices which were preserved exclusively by physical means, there were, on the market, for sale to the consumer both single strength and concentrated fruit juices preserved by physical means and containing limited amounts of chemical preservatives. A number of delegations considered that only fruit juices preserved exclusively by physical means should be offered for sale to the consumers. These delegations took the view that even when appropriately labelled to distinguish them from fruit juices preserved exclusively by physical means, fruit juices preserved by a combination of physical and chemical means should not be offered for sale to the consumer. Other delegations were opposed to this view. The Group therefore proceeded to a vote, and decided by 13 to 9 to elaborate standards for fruit juices for sale to the consumer, preserved by a combination of physical and chemical means, on the understanding that these juices would be labelled in such a way that the consumer would be fully informed as to the true nature of these products and would be able to distinguish them from juices preserved exclusively by physical means. The Group agreed to proceed as follows. The Group would continue with the development of the standards for fruit juices preserved exclusively by physical means, and would deal separately, at a later stage, with standards for fruit juices preserved by a combination of physical and chemical means. In principle, the compositional requirements for both types of products would be the same, but there would need to be account taken of the differences among the products in the definition, additives provisions and labelling section of the standards. It was agreed that in indicating the true nature of the product it might be necessary to qualify the designation of the product.

11. The Group agreed that when the standards for fruit juices preserved exclusively by physical means were submitted to the Commission at Step 8 for adoption, the Commission's attention should be drawn to the fact that these standards represented only one group of products intended for sale to the consumer and that it was the intention of the Group to submit to the Commission at a later stage standards for fruit juices for sale to the consumer preserved by a combination of physical and chemical means.

12. Concerning the so-called "Ingredient Juices" used by the food industry for various fruit juice beverages and other products, the Group considered that these should be regarded as coming within the scope of its work and the General Principles of the Codex Alimentarius. The Group agreed that this subject would be considered in dealing with future work. The Group agreed that it would be necessary to collect data showing the extent of international trade in juices other than those preserved exclusively by physical means to enable it to determine its priorities.

Maximum level for tin in fruit juices

13. The Group of Experts considered the figure of 250 mg/kg for tin in fruit juices, which it had agreed to retain provisionally in the standards at its last session. The Group reviewed this figure in the light of (a) government comments, (b) the observations of the Codex Committee on Food Additives, (c) the results of research on this subject carried out in Italy (the results were set out in a paper submitted to the meeting in French only by the Italian delegation), and (d) the results of research carried out in Spain which were conveyed orally to the meeting by the Spanish delegation.

14. The Group noted that some delegations attending the Sixth Session of the Codex Committee on Food Additives were of the opinion that a maximum limit of 150 mg/kg was sufficient to cover the actual residues found in these products. It had also been stated at the meeting of the Codex Committee on Food Additives that the level of 250 mg/kg might not be required for all types of fruit juices and nectars, and that the maximum level for tin should be reconsidered in the light of the requirements of individual commodities in the standards.

15. The Group noted that the results of research carried out in Italy and Spain had shown that, under existing conditions, levels of tin content were being found up to 250 mg/kg and that it might not be technologically feasible to set a limit for tin lower than 250 mg/kg. Other delegations expressed the view that, with improved technology, quicker turnover of food products resulting in shorter shelf life for the products, it should be possible to reduce the figure of 250 mg/kg. The delegation of France, which had suggested a level of 100 mg/kg, pointed out that, where reconstituted juices were concerned, if a high level of nitrate was present in the water added, it could result in increased corrosion of containers and thus in a higher tin content. While a majority of the Group agreed that a figure lower than 250 mg/kg should be provided for, it was not possible to determine what would really be an appropriate lower figure at the session, in the absence of more extensive data regarding the levels of tin found in practice on a product by product basis in a larger number of countries. The Group also considered that, in the absence of data regarding levels of tin at which there was a risk to the health of the consumer, it would be premature to do other than include a provisional limit in the standards.

16. Recognizing these difficulties, and on the basis of the information presently available to it, the Group agreed to include in the standards a figure of 250 mg/kg. This figure was to be provisional, and would be reviewed by the Group when more complete data of the kind mentioned above became available. The Group further noted that the provisional maximum limit for tin content of 250 mg/kg would appear in the standards other than the standard for apple juice (see para. 47), going to the Commission at Step 8 as not having been endorsed by the Codex Committee on Food Additives. Data would need to be obtained from the industry and would also have to include medical opinion on the subject. Thus, the Group envisaged recommending to the Commission, at a later stage, a possible amendment to the standards to reduce the provisional limit for tin content. The delegation of the Federal Republic of Germany undertook to collect data on the level of tin in fruit juices which would change the organoleptical characteristics of juices and at which the consumer would notice a quality deterioration particularly concerning the taste factors of the product.

Cadmium

17. The Group of Experts considered document CODEX/FRUJU/69/4; AGRI/WP.1/631, which had been prepared by the delegation of Switzerland, on the question of whether a provision on cadmium should be introduced into the standards, together with government comments on this subject. The Swiss delegation indicated that their experiments had shown that it was not possible to prove with certainty the presence of cadmium in either bottled or canned juices and that experiments carried out on the lining of containers from various sources revealed very little trace of cadmium. It appeared, therefore, that there could be no question of fruit juices containing cadmium in harmful amounts. The Swiss delegation was not proposing that there should be a limit for cadmium in the standards.

18. Noting that the standards did not list all other toxic elements for which limits could be set, the majority of the Group saw no necessity nor reason, particularly in view of the Swiss experiments, to mention cadmium in the standard, and decided, therefore, not to include any provision on cadmium in the standards. The Group expressed its appreciation of the experimental work done in this field by the Swiss delegation.

Methods of Analysis and Sampling

19. The Group considered the basic working document CODEX/FRUJU/69/2, which had been prepared by the Secretariat, as well as the comments received from governments and international organizations, which were contained in documents CODEX/FEUJU/69/2, Add. 1 and 2, and LIM. 1 to 4. The Group also had before it a Synopsis of Methods of Analysis for Fruit Juices, which had been prepared by the delegation of the Federal Republic of Germany (SP 10/75; SP 10/101; CODEX/ANALYS/67-2); the digest of comments received from governments and international organizations on this synopsis (CODEX/ANALYS/68-2(1)) and the Methods of Analysis for Preservatives in Fruit Juices (FJ.4).

20. The Group took note of the General Principles for the Establishment of Codex Methods of Analysis contained in the Report of the Fourth Session of the Codex Committee on Methods of Analysis and Sampling (Appendix IV of ALINORM 69/23). In particular, the Group noted that the methods of analysis and sampling contained in Codex Standards were international referee methods intended for use in the case of disputes, and that these methods would not preclude the use of existing methods for routine inspection or other control purposes. Furthermore, the Group noted that preference should be given to (a) official methods of analysis elaborated by international organizations dealing with the food concerned, and (b) methods whose reliability to give reproducible or equivalent results had been statistically established in comparative or collaborative laboratory studies.

21. The Group of Experts recognized that the methods of analysis elaborated by the Sub-Commission on Analyses of the International Federation of Fruit Juice Producers had been widely accepted in the trade for a considerable number of years, and had been the subject of thorough and collaborative studies. It was agreed to recommend the inclusion of the methods of the International Federation of Fruit Juice Producers in the standards. The Group agreed that, in considering these methods for individual criteria in the standards, it might be necessary to consider possible amendments to the methods. The Chairman of the Sub-Commission on Analyses of the International Federation of Fruit Juice Producers informed the Group that the methods were constantly under review and that any amendments suggested by the Group would be carefully examined

by the Sub-Commission. In carrying out any revision of the methods or developing new methods, the Sub-Commission of the IFFJP would consult fully with the Group of Experts and other international organizations in this field. The delegation of the USA, referring to the well-established and collaboratively tested methods of the AOAC, which also had a wide measure of acceptance in a number of countries, indicated that it would not be opposed to the Group recommending and eventually the USA adopting the methods of the IFFJP provided that there was clear evidence supplied that these methods had been proved to be satisfactory by collaborative studies.

Sampling Plans for Prepackaged Foods

22. The Group had before it for consideration document ALINORM 69/27 containing the proposed Sampling Plans for Prepackaged Foods. The Codex Alimentarius Commission at its sixth session had requested that Codex Commodity Committees should examine the suitability of the Sampling Plans for taking of random representative samples from large lots and also the plans' proposed acceptance level for quality criteria in standards. The Group was informed that the Sampling Plans would be examined by the Codex Committee on Methods of Analysis and Sampling at its fifth session in December 1969 in the light of government replies to a specific questionnaire, general observations of governments and the views of Codex Commodity Committees. A summary document CODEX/ANALYS/69/B/3 containing the views of governments and those Committees which had examined the Sampling Plans would be circulated shortly as a working document for the next session of the Codex Committee on Methods of Analysis and Sampling. The Group noted that the Sampling Plans had been adopted by the Codex Committee on Processed Fruits and Vegetables and introduced as an integral part of standards at Step 9 for the measurement of quality criteria. Other Committees had accepted the statistical validity of the plan for ensuring an adequate sample size being drawn from large lots, but would wish to reconsider the acceptance level (AQL) of 6.5 as to its suitability product by product. The Group noted that the Sampling Plan was not in the opinion of most governments suitable for enforcement in respect of small lots at the retail level nor for the enforcement of health criteria such as the presence of a non-permitted food additive or incorrect labelling. The Group concluded that at this stage the Sampling Plans for Prepackaged Foods could be used for the purpose of drawing an adequate and representative sample from a large lot of prepackaged fruit juices for use in the case of a dispute concerning the criteria of the standards. The Group agreed to apply provisionally the acceptance level part of the Sampling Plans for Prepackaged Foods. The Group further agreed that the statistical sampling provided for in the Plans would only need to be resorted to as an international referee method in the event of a dispute. The Methods of Analysis and Sampling Section of the Standards for Fruit Juices would read as follows:

"Methods of Analysis and Sampling

The methods of analysis and sampling described hereunder are international referee methods.

Sampling for Examination

The number of samples to be taken from all lots for the examination of essential composition and quality factors, minimum fill and determination of net contents shall be in accordance with the Sampling Plans for Prepackaged Foods (1969).

Methods of Analysis

.....”

Technical Procedure for Sampling

23. The Group agreed in principle that the sampling methods, i.e., the procedure for drawing a sample, for milk in Codex Standard No. B-1 (1966) would probably be suitable for fruit juices and that appropriate sections of the Technical Procedure for sampling foods in ALINORM 69/23, Appendix VI, could also be suitable for these products. It was agreed to refer this to the Codex Committee on Methods of Analysis and Sampling.

Methods of Analysis

24. Concerning the list of methods of analysis of the International Federation of Fruit Juice Producers to be included in each standard for nectars and fruit juices and to be proposed to the next session of the Codex Committee on Methods of Analysis and Sampling for endorsement, the Committee agreed that this should be prepared by a small group of experts, including those of the IFFJP, the I.W.O. (international Wine Office), and the AOAC, together with the Commission's Secretariat, before 1 December 1969.

Use of Concentrates for the Production of Single-strength Juices

25. At its last session, the majority of delegations in the Group had agreed to permit in the standard the manufacture of fruit juices from concentrates. The delegations of France and Italy had reserved their positions regarding this decision. The Group, at its current session, took note of the detailed comments put forward in writing by the French delegation in support of their view that it was unacceptable that the product obtained directly and wholly from fruit by a mechanical process and the product obtained by diluting concentrated fruit juice by the addition of potable water should both be covered under the same description and under the same name "fruit juice".

26. The Group noted, in particular, the French comments dealing with the technical considerations involved, relating mainly to the possible presence of nitrates in the water used for dilution, which could lead to an abnormal increase in the tin content of the juices. The Group noted that in the International Standards for Drinking Water, WHO 1963, the maximum allowable limit of Nitrate as NO_3 in potable water was 45 mg/l. The delegation of France thought that a maximum level of 5 mg/l would be necessary for technological reasons when reconstituting fruit juices. The Group decided that further information would be required before it could come to any conclusion on this. The delegation of the Federal Republic of Germany stated that it could agree to the use of concentrates for the production of single strength juices, but in stating this drew to the attention of the Group that in the Federal Republic of Germany potable water used for this purpose had to be demineralised to a conductivity of not more than 25 micro Siemens. The delegation of Italy withdrew its previous reservation on the use of concentrates except for tomato juice and agreed to their use subject to the appropriate labelling of the reconstituted juice.

27. The Group agreed, with the exception of the French delegation, on the use of concentrates for the manufacture of single strength juices.

Title of the Standards

28. The Group agreed that the words "ready for consumption" in the title of the standards and "ready for direct consumption" in the description section of the standards did not accurately convey the meaning intended. The word "ready" had been used in the sense that the product would not be subjected to any processing or treatment which would change its essential composition and characteristics. The Group agreed that the

words "intended for direct consumption" gave a clearer idea of what was meant and incorporated this expression in the description section of the standards. The Group agreed that it was not necessary to retain the words "ready for consumption" in the title.

Standard for Apricot, Peach and Pear Nectars

29. The Group of Experts considered the above standard which was contained in Appendix II of ALINORM 69/14; AGRI/WP.1/572 in the light of government comments at Step 7, and of the Recommended General Standard for the Labelling of Prepackaged Foods. The standard, as revised by the Group, is contained in Appendix II to this report. The following were the main points arising from the discussion.

30. Some delegations considered that the use of the term "nectar" should not be confined to the pulpy product, but should cover also the clear product made from the juice. The Group was informed that the Commission of the European Economic Community in their draft proposals for harmonization of national legislation in the Community, applied the term "nectar" to both types of product. The Group of Experts decided to adhere to the decision which it had taken at its last session that this standard should apply only to pulpy products. The Group considered that this did not appear to create a problem so far as apricot, peach and pear nectars were concerned, as it had no knowledge of clear type nectars made from apricots, peaches and pears. The Group thought that the clear type nectars in general would have to be considered in the future and that it probably would be desirable to label them as "clear nectars".

31. The delegation of Canada raised the question whether the standard would have the effect of prohibiting trade in vitaminized juices. It was pointed out that the standard would have no such effect. The standard would not prohibit a claim for vitaminization on the label, but any such claim would have to meet the requirements of national legislation on this subject. This matter was dealt with in the labelling section of the standard.

32. The delegations of France and Italy reserved their position on the minimum content of fruit ingredient provided for in the standard, as they considered that the figure should be 50% for peach and pear nectars and 40% for apricot nectar. The French delegation also reserved its position on the provision in the description section of the standard which permitted the use of concentrated fruit ingredient in the production of nectars, and on the absence of a provision which would require nectar made from concentrated fruit ingredient to be labelled as reconstituted nectar.

33. The Group amended the provision on the Addition of Sugars to make it clear that sucrose, which was the term used in the trade, meant white sugar for which there was a recommended Codex Standard. The Group also reconsidered the provision placing a limitation on the amount of glucose syrup which could be used to replace sucrose. Having been informed as to the origin of this restriction and taking into account that there was now a recommended Codex Standard for glucose syrup, the Group decided, by a majority of 12 to 3 with 6 abstentions, to remove from the Standard the provision limiting the use of glucose syrup. The delegation of Cuba reserved its position on this decision.

34. In view of the fact that the expressions "degrees Brix" and "percentage by weight of sucrose" are equivalent and that the provision required the use of the refractometric method, which gives results expressed as percentage by weight of sucrose, the Group amended the wording of this provision and the revised wording appears in all of the Standards amended by the Group at the Session.

35. The delegation of the Netherlands reserved its position on the figure agreed upon by the Group in respect of soluble solids content for apricot, peach and pear nectars.

The delegation of the Netherlands had requested that a lower figure should be provided for on the basis of consumer preference. The delegation of Poland reserved its position on the revised wording of the provision on soluble solids content. The Polish delegation considered that the provision should read "The soluble solids content of the product shall be not less than 13% by weight as determined by refractometer at 20°C, uncorrected".

36. The Group considered a proposal of the Swiss delegation to delete the provision on fluidity on the grounds that it was not an essential quality factor. The Group decided to retain the provision but substituting the term "apparent viscosity" for "fluidity".

37. The Group agreed to provide for the use of malic acid as an acidifying agent, noting the comments of the Codex Committee on Food Additives regarding the safety in use of this additive.

38. The delegation of the Federal Republic of Germany reserved their position concerning the addition of acids and acidifying agents, because in their opinion the amount of acid naturally present in the fruit component was sufficient, if enough fruit was used, and also because the acidity is an indication to the consumer of the amount of fruit present.

39. As regards the section on contaminants in the Standard for Nectars and for the various fruit juices considered by the Group, the delegation of Canada suggested a maximum level of 0.1 mg/kg for arsenic, 0.2 mg/kg for lead. The Canadian delegation also suggested a level of 2.0 mg/kg for copper in the Standard for nectars and apple juice. The delegation of Poland reserved its position on the level of 5 mg/kg for copper in all of the Standards considered by the Group and was of the opinion that this figure should be reduced to 3.5 mg/kg. The delegation of Italy reserved its position on the maximum level of 0.3 mg/kg for lead.

40. As regards the hygiene section of all the Standards considered, the Group decided to delete the reference in this section to pathogenic micro-organisms. The Group considered that this constituted no change of substance from the point of view of the hygiene provisions, as the Standard provided that there shall be no micro-organisms capable of development under normal conditions of storage. The Group agreed, however, to retain the provision requiring that the product shall not contain any toxic substance originating from micro-organisms. The Group noted the report of the Chairman of the Analysis Sub-Committee of the International Federation of Fruit Juice Producers, that the mould count method would not be valid for the nectars and juices under consideration. (See CODEX/FRUJU/69/6). The Group agreed, therefore, to delete this provision from the Standards.

41. The Group considered the labelling section of the standard, taking into account the Recommended General Standard for the Labelling of Pre-packaged Foods. The Group agreed that sections 1, 2, 4, 5 and 6 of the General Labelling Standard should be incorporated by reference into all of the Standards considered. The Group decided by 12 to 9 with no abstentions that the Standard for Nectars should provide for a complete list of ingredients, including added water, in descending order of proportion. The Group decided by 17 to 4 with no abstentions that the country of origin of the nectars should be declared on the label. This was understood to mean the country in which the nectar was produced and not the country which supplied the fruit ingredient. The Group agreed that the country of origin should be declared also in the case of the fruit juice standards. As regards the provision on the pictorial representation of the species of fruit present in the nectar or of the nectar itself, the delegation of France reserved its position on this provision, stating that the minimum percentage of fruit content should be superimposed

on the pictorial representation. The Group agreed that it would be necessary to include certain additional labelling provisions concerning nectars requiring to be kept under conditions of refrigeration. In this respect the Group adopted provisions which had been agreed upon by the ECE/Codex Group of Experts on the Standardization of Quick Frozen Foods. The Group further agreed to incorporate in the labelling section of the standard, requirements concerning the labelling of nectars in bulk, or, alternatively, permitting the information required under labelling provisions to be contained in documents accompanying bulk shipments. The Group agreed that the provisions relating to labelling of products requiring to be kept under conditions of refrigeration and bulk consignments, should apply to all the fruit juice standards.

Conclusion

42. The Group agreed to advance the Standard for Nectars, which appears in Appendix II to this Report, to Step 8 for consideration by the Commission at its next session.

Draft Standard for Apple Juice Preserved Exclusively by Physical Means

43. The Group agreed to make the same amendment to the title of this standard and to the description which it had previously decided upon in the case of the Nectars Standard. The delegation of France made a general reservation concerning all the standards considered by the Committee and advanced to Step 8 regarding the use of concentrates for the manufacture of single strength juices.

Soluble Solids

44. The Group agreed to introduce the following revised text into the standard: "The soluble apple solids content of apple 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." The delegation of Poland reserved its position, as it did not agree with the expression of the results in °BRIX.

Sugars

45. The Group decided not to delete section 2.2, permitting the addition of sugars, by 8 to 6 with 6 abstentions. The delegations of Canada, Switzerland, France and the Federal Republic of Germany registered their reservation on this decision.

Food Additives

46. The Group took note of the endorsements which had been made by the Codex Committee on Food Additives, and made the necessary revisions to this section of the standard. It was agreed to include perlite and kieselguhr. Section 3.2 of the standard was deleted, and "Pure Nitrogen" was added as section 3.3 of the standard.

Contaminants

47. Concerning the maximum level of tin content in apple juice, the Group agreed to a maximum level of 150 mg/kg. The Group noted that the Codex Committee had been prepared to endorse tin content at this level. The delegation of Finland expressed the view that it was desirable to have a lower level of tin content in the case of apple juice. The delegation of Italy reserved its position on the maximum level of 0.3 mg/kg for lead.

The Name of the Food

48. The Group of Experts agreed that the name of the product shall be "apple juice" and decided by 13 to 6 with 2 abstentions to include a further provision in the standard

that when sugars have been added to apple juice, the name of the product shall be "sweetened apple juice." The Group decided by 10 to 9 with 2 abstentions not to require apple juice made from concentrates to be designated reconstituted apple juice or apple juice made from concentrates. The delegations of France, Italy and the U.S.A. reserved their positions on this decision. The Group decided by 10 to 8 with one abstention that it would not be necessary to require a complete declaration of ingredients in the case of apple juice. The Group agreed that the provision concerning the declaration of the addition of sugars on the label should be retained in the standard.

Methods of Analysis

49. The Group made the same changes to this standard in respect of sampling as had been agreed for the standard for Nectars. Concerning the methods of analysis, the Group agreed that the appropriate methods of analysis of the International Federation of Fruit Juice Producers would be listed as international referee methods of analysis for endorsement by the Codex Committee on Methods of Analysis and Sampling. Concerning the determination of soluble apple solids in apple juice, the Group noted that it would be difficult to propose a referee method for the determination of soluble apple solids content in apple juice where sugars had been added.

Conclusion

50. The Group agreed to advance the standard for apple juice, which is contained in Appendix III to this Report to Step 8 for consideration by the Commission at its next session.

Standards for Orange, Lemon and Grapefruit Juices Title and Description

51. The Group made the same changes to the title and description of the three citrus fruit juice standards as had been agreed for Nectars and Apple Juice.

Soluble Solids

52. The Group agreed to revise the sections of the three standards concerning the methods of expressing the determination of the soluble solids, to bring them into conformity with the way in which the provisions had been expressed in the case of Apple Juice.

Sugars

53. The delegation of Italy reserved their position regarding the provision in the standard for orange juice limiting the amount of sugars permitted to be added to 50 g/kg, taking the view that the figure should be higher than 50 g/kg, that the product should be labelled "sweetened orange juice" with a declaration of the quantity of sugar added.

Essential Oils

54. Concerning essential oils the Group agreed to reduce the maximum level in the case of orange juice to 0.3 ml/kg. The delegations of Spain, Italy and Cuba reserved their position, as they were in favour of a maximum limit of 0.5 ml/kg. The Group agreed to remove the square brackets from the provision concerning essential oils in the standard for lemon juice, and left the maximum limit unchanged at 0.5 ml/kg.

Contaminants

55. The delegations of Spain and Italy reserved their position concerning the maximum levels for arsenic and lead. These delegations considered that the maximum level should be raised to 0.4 mg/kg for arsenic and 0.5 mg/kg for lead. The Group

agreed that its general decision concerning the maximum limit of tin content of 250 mg/kg would be provisional and would apply in the case of all three citrus standards. The Group decided by 11 to 4 with 5 abstentions not to include a provision in the standard for orange juice to permit the presence of SO₂ up to a level of 10 mg/kg. The delegation of Italy proposed that the standard for orange juice should permit the presence of SO₂ up to a level of 30 mg/kg, to be reduced to 10 mg/kg in 5 years.

Labelling

The Name of the Food

56. The Group decided by 11 to 8 with 2 abstentions not to require orange juice made from concentrates to be designated reconstituted orange juice or orange juice made from concentrates. The delegations of France, Italy, Finland, Israel and the USA reserved their position on this decision. Concerning orange, lemon and grapefruit juices, the Group agreed that the names of the products should be "orange juice", "lemon juice" and "grapefruit juice" respectively. The Group decided by 9 to 7 with 5 abstentions not to require orange juice containing added sugar to be designated sweetened orange juice. The delegations of France, Italy and the USA reserved their positions on the Group's decision not to require that lemon juice and grapefruit juice, when made from concentrates, be designated reconstituted lemon juice and reconstituted grapefruit juice or lemon juice or grapefruit juice made from concentrates.

List of Ingredients

57. The Group decided by 11 to 9 with one abstention in the case of orange juice to require a complete declaration of ingredients in descending order of proportion. The delegations of Spain and Switzerland reserved their position on this decision. The Group agreed that in the case of lemon juice there was no need to require a complete declaration of ingredients. The Group decided by 9 to 8 with 3 abstentions not to require a complete declaration of ingredients for grapefruit juice.

Net Contents, Name and Address, Country of Origin

58. The Group agreed to make the same provisions in respect of these three items as they had decided to include for Nectars and Apple Juice.

Claims for Vitamin C

59. The Group agreed that the restrictions contained in the standard for nectars and apple juice concerning the presence of vitamin C did not apply to the three standards for citrus juices. The Group also included in the labelling section the same provision as in the Nectars and Apple Juice standards concerning the pictorial representation of fruit or juice on the label. The Group also agreed that the labelling provisions concerning the juices required to be kept under conditions of refrigeration should apply to the citrus juices, and likewise the labelling information in documents accompanying bulk packs should be similarly applied.

Label Declaration of Added Sugars

60. The Group decided that, in view of the fact that a complete declaration of ingredients in descending order of proportion was to be required for orange juice, it would no longer be necessary to retain the provision 5.2.2 of the standard requiring the declaration of the addition of sugars on the label. The delegations of the Federal Republic of Germany and Israel reserved their position on this decision. The Group decided in the case of grapefruit, as there was to be no requirement for a complete

declaration of ingredients, that it would be necessary to retain section 5.2.2 requiring the declaration of added sugars on the label.

Methods of Analysis and Sampling

61. The Group agreed to apply the same provisions concerning sampling as had been agreed upon for Nectars and Apple Juice, and also to recommend to the Codex Committee on Methods of Analysis and Sampling for endorsement the methods of analysis of the International Federation of Fruit Juice Producers. The delegate of Israel drew attention to the need for the development of methods, if possible, to identify citrus juices made from concentrates. It was agreed to request the Sub-Committee on Analytical Methods of the IFFJP to investigate this problem. The delegate of Israel indicated that he would supply the results of research in his country on this problem, particularly in combination with orange juice.

Conclusion

62. The Group agreed to advance the standards for orange juice, lemon juice and grapefruit juice to Step 8 for consideration by the Commission at its next session. These standards are contained in Appendices IV, V, and VI to this Report.

Future Work

63. The Group had before it a document, reference CODEX/FRUJU/69/5, prepared by the United Kingdom, concerning proposals regarding the future work of the Group of Experts. In view of the fact that the Group, due to lack of time, had been unable to deal with the Standards for grape juice, tomato juice, concentrated apple juice, concentrated orange juice and concentrated grape juice at Step 7, the Group agreed that these Standards should have priority for consideration by the Group at its next session. The Group also agreed that the question of whether there should be separate Standards for sweetened and unsweetened concentrates would also have to be examined. Concerning other business to be included on the agenda of the next session of the Group, it was agreed that the Secretariat, in consultation with the Chairman, should add items of business which were considered to be ready for examination by the Group, having regard to the Group's recommendations concerning future work at its 5th session and also government observations to be obtained on the paper which had been prepared by the United Kingdom (CODEX/FRUJU/69/5). It was also agreed that document CODEX/FRUJU/69/7, containing a classification and definition framework for fruit juices and fruit juice products, drawn up by the Group at its second session, should be circulated to governments for comments and should be included in the agenda of the Group's next session. The Group would review the classification framework in the light of the comments received, in particular the question of "clear nectars". It was agreed that the Standards for Small Fruit Nectars and Pineapple Juice should be circulated to governments for comments prior to the next session of the Group. The delegation of Spain advised the Group that it had prepared a draft Standard for Citrus Juice Beverages with a High Juice Content. It was agreed that the Secretariat should circulate the Spanish proposals for comments.

Election of Chairman and Vice-Chairman

64. The Group unanimously re-elected Professor W. Pilnik of the Netherlands to serve as Chairman until the end of the 7th Session, and Mr. W. Orłowski of Poland to serve as Vice-Chairman until the end of the 7th Session.

Summary of Status of Work (prepared by the Secretariat)

65. 1. - STANDARDS CONSIDERED AT THE SIXTH SESSION OF THE GROUP OF EXPERTS

Standards for the following commodities were considered by the Group of Experts at its sixth session at Step 7 and advanced to Step 8.

- (i) Apricot, Peach and Pear Nectars - preserved exclusively by physical means
- (ii) Apple Juice - preserved exclusively by physical means
- (iii) Orange Juice - preserved exclusively by physical means
- (iv) Lemon Juice - preserved exclusively by physical means
- (v) Grapefruit Juice - preserved exclusively by physical means

2. - STANDARDS, THE CONSIDERATION OF WHICH HAS BEEN POSTPONED OR HELD IN ABEYANCE

(a) Standards for the under-mentioned commodities were listed for consideration by the Group of Experts at its sixth session at Step 7, but owing to lack of time could not be considered. These standards will receive priority consideration by the Group at its next session at Step 7

- (i) Grape Juice - preserved exclusively by physical means
- (ii) Tomato Juice - preserved exclusively by physical means
- (iii) Concentrated Apple Juice - preserved exclusively by physical means
- (iv) Concentrated Orange Juice - preserved exclusively by physical means
- (v) Concentrated Grape Juice - preserved exclusively by physical means

(b) Standards for the following commodities are to be sent out to governments for comment and subsequent consideration by the Group at Step 2:

- (i) Pineapple Juice - preserved exclusively by physical means

(This standard was before the Group at its Sixth Session for consideration at Step 2 in the light of comments received from members of the Group. Owing to lack of time, the standard could not be considered).

- (ii) Small Fruit Nectars - preserved exclusively by physical means

(This is a first draft, prepared by Finland and the other Scandinavian countries. The draft has never been before the Group of Experts).

- (iii) Citrus Juice Beverages with a High Juice Content
- (c) The views of governments are to be obtained on the Group's proposed programme of future work, drawn up at its fifth session, in the light of a paper on this subject (CODEX/FRUJU/69/5) prepared by the delegation of the United Kingdom. The Group's proposed future work programme includes standards for the commodities listed at 2 (b) (ii) and 2 (b) (iii) above as well as standards for the following commodities: (This is a first draft, prepared by Spain. The draft has never been before the Group of Experts).
 - (i) Passion fruit nectar)
 - (ii) Paw-Paw Nectar) Rapporteur : U.S.A
 - (iii) Guava Nectar)
 - (iv) Bilberry Juice Rapporteur : Poland
 - (v) Cranberry Juice Rapporteur : U.S.A.
 - (vi) Lime Juice Rapporteur : United Kingdom
 - (vii) Blackcurrant Juice Rapporteur : U.K. and Poland
 - (viii) Citrus Juices of the species "Citrus reticulata" Rapporteur : U.S.A. and Japan
 - (ix) Tomato Juice Cocktail Rapporteur : Netherlands and U.S.A
- (d) The Group intends to elaborate, in time, standards for fruit juices and concentrated fruit juices intended for consumption and preserved by a combination of physical means and the use of limited amounts of chemical preservatives. The Group will consider further the so-called "Ingredient Juices" used by the food industry for various fruit juice beverages and other products. The Secretariat is to collect data showing the extent of international trade in all these juices, to enable the Group to determine its priorities

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**DRAFT STANDARD FOR APRICOT, PEACH AND PEAR NECTARS
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS ^{1/}**

(To be submitted to the Codex Alimentarius Commission at
Step 8 of the Procedure)

^{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 pulpy product, intended for direct consumption, obtained by blending the total edible part of sound and ripe apricots, peaches or pears, concentrated or unconcentrated, with water and sugars, and preserved exclusively by physical means.

2. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

2.1 **Minimum Content of Fruit Ingredient**

The product shall contain not less than 40% in the case of peach and pear nectars, and not less than 35% in the case of apricot nectars, by weight of single strength fruit ingredient or the equivalent derived from any concentrated fruit ingredient.

2.2 **Sugars**

The following sugars may be used: sucrose (white sugar), dextrose and glucose syrup as defined by the Codex Alimentarius Commission.

2.3 **Honey**

Honey, as defined by the Codex Alimentarius Commission, may be used if it is the sole added sweetening ingredient.

2.4 **Lemon Juice**

Lemon juice may be added as an acidifying agent.

2.5 **Soluble Solids**

The soluble solids content of the product shall be not less than 13% by weight as determined by refractometer at 20°C, uncorrected for acidity and read as°Brix on the International Sucrose Scales.

2.6 **Apparent Viscosity**

The apparent viscosity of the product shall be such that the flow-time is not less than 30 seconds, as determined by the method referred to in paragraph 8.2 of this standard.

2.7 **Ethanol Content**

Ethanol content shall not exceed 3 g/kg.

2.8 **Hydroxymethyl Furfural**

Not more than 10 mg/kg.

2.9 Organoleptic Properties

The product shall have the characteristic colour, aroma and flavour of the fruit from which it is made.

2.10 Classification of "defectives"

A container that fails to meet the applicable quality requirements as set out in paragraph 2.1 and paragraphs 2.5, 2.6, 2.7, 2.8 and 2.9 of this standard shall be considered a "defective".

2.11 Acceptance

A lot will be considered as meeting the quality requirements of paragraph 2.1 and paragraphs 2.5, 2.6, 2.7, 2.8 and 2.9 of this standard when the number of "defectives" as defined in paragraph 2.10 does not exceed the acceptance number (c) of the appropriate sampling plan (Acceptable Quality Level: AQL-6.5) in the Sampling Plans for Prepackaged Foods (1969).

3. FOOD ADDITIVES

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

3.1.1 Acidifying Agents

Citric acid
Malic acid

3.1.2 Antioxidants

I-ascorbic acid

4. CONTAMINANTS

4.1 Pesticide Residues

The product shall comply with such requirements as may be specified by the Codex Committee on Pesticide Residues.

4.2 Other Contaminants

4.2.1 The following provisions in respect of contaminants other than pesticide residues have, with the exception of the level for tin content, been endorsed by the Codex Committee on Food Additives:

4.2.1.1	<u>Contaminant</u>	<u>Maximum level</u>
	Arsenic (As)	0.2 mg/kg
	Lead (Pb)	0.3 mg/kg (temporarily endorsed)
	Copper (Cu)	5 mg/kg
	Zinc (Zn)	5 mg/kg
	Iron (Fe)	15 mg/kg
	Tin (Sn)	250 mg/kg provisional level (not endorsed)
4.2.1.2	Total metal content precipitable by potassium hexacyanoferrate (II)	20 mg/kg expressed as Fe

5. HYGIENE

- 5.1 The following provisions in respect of the food hygiene of the product have been endorsed by the Codex Committee on Food Hygiene:
- 5.1.1 Micro-organisms capable of development under normal conditions of storage none
- 5.1.2 The product shall not contain any toxic substance originating from micro-organisms.
- 5.2 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Code of Hygienic Practice for Canned Fruit and Vegetable Products and the Code of Hygienic Practice for Deep Frozen Fruit and Vegetable Products, as appropriate.

6. WEIGHTS AND MEASURES

6.1 Fill of Container

6.1.1 Minimum Fill

The nectar 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.

6.1.2 Classification of "Defectives"

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

6.1.3 Acceptance

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

6.2 Net Contents

6.2.1 Classification of "Defectives"

A container that falls short of the declared net contents, as provided for in paragraph 7.3 of this standard, shall be considered a "defective".

6.2.2 Acceptance

A lot will be considered as being acceptable in respect of net contents of containers 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 (1969).

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

In addition to Sections 1, 2, 4, 5 and 6 of the 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 product shall be "apricot nectar" or "pulpy apricot nectar", "peach nectar" or "pulpy peach nectar", "pear nectar" or "pulpy pear nectar", as appropriate.

7.2. List of Ingredients

7.2.1 A complete list of ingredients, including added water, shall be declared on the label in descending order of proportion.

7.2.2 The addition of 1-ascorbic acid shall be declared on the label as:

- a) "l-ascorbic acid", or
- b) "l-ascorbic acid" qualified to indicate its technological use,
or
- c) "anti-oxidant".

7.3 Net contents

The net contents shall be declared by volume 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

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7.5.1 The country of origin of the product shall be declared.

7.5.2 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 purposes of labelling.

7.6 Additional Requirements

The following additional specific provisions shall apply:

7.6.1 The minimum percentage of fruit content as provided for under Section 2.1 of this standard shall be declared on the label.

7.6.2 The pictorial representation of fruit or nectar on the label may only be that of the species of fruit present or the nectar therefrom.

7.6.3 No claim 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 fruit nectars require to be kept under conditions of refrigeration:

- a) There may be an indication in code of the date of production, that is, the date the final product is packaged for final sale;

- b) There shall be information for keeping and thawing of the product;
- c) There may be information for utilization:

7.7 Bulk packs

In the case of fruit nectars in bulk, the information required in 7.1 to 7.6.3 shall either be placed on the container or be given in accompanying documents.

8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

8.1 Sampling for Examination

The number of samples to be taken from all lots for the examination of essential composition and quality factors, minimum fill and determination of net contents shall be in accordance with the Sampling Plans for Prepackaged Foods (1969):

8.2 Methods of Analysis

The method for determining the apparent viscosity of the product shall be that of Lamb and Lewis (J.A.O.A.C., Vol. 42, No. 2, p. 411, 1959). (The methods referred to in paragraphs 21 and 23 of the Report will be included in this section of the standard after they have been considered by the Codex Committee on Methods of Analysis and Sampling, as agreed upon in paragraph 24 of the Report.)

DRAFT STANDARD FOR APPLE JUICE
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS ^{1/}

(To be submitted to the Codex Alimentarius Commission at
Step 8 of the Procedure)

^{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 juice, intended for direct consumption, obtained by a mechanical process from sound, ripe apples, preserved exclusively by physical means. The juice may be concentrated and later diluted. It may be turbid or clear.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Soluble Apple Solids

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

2.2 Sugars

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

2.3 Ethanol Content

The ethanol content shall not exceed 5 g/kg.

2.4 Volatile Acids

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

2.5 Organoleptic Properties

The product shall have the characteristic colour, aroma and flavour of apple juice. The restitution of natural apple juice flavour to apple juice from which the flavour has been removed is allowed.

2.6 Use of Concentrate

The addition of concentrate to juice is permitted.

2.7 Classification of "defectives"

A container that fails to meet the applicable quality requirements as set out in paragraph 2.1 and paragraphs 2.3, 2.4 and 2.5 of this standard shall be considered a "defective".

2.8 Acceptance

A lot will be considered as meeting the quality requirements of paragraph 2.1 and paragraphs 2.3, 2.4 and 2.5 of this standard when the number of "defectives" as defined in paragraph 2.7 does not exceed the acceptance

number (c) of the appropriate sampling plan (Acceptable Quality Level: AQL-6.5) in the Sampling Plans for Prepackaged Foods (1969).

3. FOOD ADDITIVES

3.1 The following provisions in respect of food additives have been endorsed by the Codex Committee on Food Additives except as otherwise indicated:

3.1.1 Antioxidants

l-ascorbic acid

3.1.2 Clarifying Agents ^{1/}

3.1.2.1 Clarifying enzymes (without preservatives)
(temporarily endorsed)

3.1.2.1.1 Pectolytic and proteolytic enzymes

3.1.2.2 Edible gelatine

3.1.2.3 Tannin (not endorsed)

3.1.2.4 Bentonite, with low soluble iron content

3.1.2.5 Colloidal solution of silica (silica sol)

3.1.2.6 Filtration aids: asbestos (not endorsed)
Kieselguhr (diatomite)
cellulose
perlite (to be endorsed)

^{1/} Shall conform to the technical purity requirements fixed by the International Wine Office, where such exist.

3.2 Others

3.2.1 Pure vegetable carbon

3.2.2 Pure carbon dioxide

3.2.3 Pure nitrogen

4. CONTAMINANTS

4.1 Pesticide Residues

The product shall comply with such requirements as may be specified by the Codex Committee on Pesticide Residues.

4.2 Other contaminants

4.2.1 The following provisions in respect of contaminants other than pesticide residues have been endorsed by the Codex Committee on Food Additives:

4.2.1.1	<u>Contaminant</u>	<u>Maximum level</u>	
	Arsenic (As)	0.2 mg/kg	
	Lead (Pb)	0.3 mg/kg	(temporarily endorsed)
	Copper (Cu)	5 mg/kg	
	Zinc (Zn)	5 mg/kg	
	Iron (Fe)	10 mg/kg	
	Tin (Sn)	150 mg/kg	

4.2.1.2 Total metal content 12 mg/kg, expressed as Fe precipitable by potassium hexacyanoferrate

4.2.1.3 The maximum amount of sulphur dioxide which may be present in the final product shall not exceed 10 mg/kg total SO₂

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

5. HYGIENE

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

5.1.1 Micro-organisms capable of development under normal conditions of storage - None

5.1.2 The product shall not contain any toxic substance originating from micro-organisms.

5.2 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Code of Hygienic Practice for Canned Fruit and Vegetable Products and the Code of Hygienic Practice for Deep Frozen Fruit and Vegetable Products, as appropriate.

6. WEIGHTS AND MEASURES

6.1 Fill of Container

6.1.1 Minimum Fill

The apple juice 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.

6.1.2 Classification of "Defectives"

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

6.1.3 Acceptance

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

6.2 Net Contents

6.2.1 Classification of "Defectives"

A container that falls short of the declared net contents, as provided for in paragraph 7.2 of this standard, shall be considered a "defective".

6.2.2 Acceptance

A lot will be considered as being acceptable in respect of net contents of containers, 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 (1969).

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

In addition to Sections 1, 2, 4, 5 and 6 of the 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 "apple juice". Where sugars have been added to apple juice, then the name of the product shall be "sweetened apple juice".

7.2 Net Contents

The net contents shall be declared by volume 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.

7.3 Name and Address

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

7.4 Country of Origin

7.4.1 The country of origin of the product shall be declared.

7.4.2 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.

7.5 Additional Requirements

The following additional specific provisions shall apply:

7.5.1 The addition of sugars shall be declared on the label.

7.5.2 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.

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

7.5.4 The pictorial representation of apples or apple juice on the label may only be that of the species of fruit present or of the juice therefrom.

- 7.5.5 Where apple juice requires to be kept under conditions of refrigeration:
- a) There may be an indication in code of the date of production, that is, the date the final product is packaged for final sale;
 - b) There shall be information for keeping and thawing of the product;
 - c) There may be information for utilization.

7.6 Bulk packs

In the case of apple juice in bulk the information required in 7.1 to 7.5.4 shall either be placed on the container or be given in accompanying documents.

8. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

8.1 Sampling for Examination

The number of sample to be taken from all lots for the examination of essential composition and quality factors, minimum fill and determination of net contents shall be in accordance with the Sampling Plans for Prepackaged Foods (1969).

8.2 Methods of Analysis

(The methods referred to in paragraphs 21 and 23 of the Report will be included in this section of the standard after they have been considered by the Codex Committee on Methods of Analysis and Sampling, as agreed upon in paragraph 24 of the Report.)

**DRAFT STANDARD FOR ORANGE JUICE
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS** ^{1/}

(To be submitted to the Codex Alimentarius Commission at
Step 8 of the Procedure)

^{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 juice, intended for direct consumption, obtained by a mechanical process from the endocarp of sound, ripe oranges (Citrus sinensis (L) Osbeck), preserved exclusively by physical means. The juice may be concentrated and later diluted.

2. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

2.1 **Soluble Solids**

The soluble solids content of orange juice shall be not less than 10.5% 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 quantity added shall not exceed 50 g/kg.

2.3 **Ethanol Content**

The ethanol content shall not exceed 3 g/kg.

2.4 **Volatile Acids**

Only traces are allowed.

2.5 **Essential Oils**

The essential oils content shall not exceed 0.3 ml/kg.

2.6 **Organoleptic Properties**

The product shall have the characteristic colour, aroma and flavour of orange juice. The restitution of natural orange juice flavour to orange juice from which the flavour has been removed is allowed.

2.7 **Use of Concentrates**

The addition of concentrate to juice is permitted. Only concentrate from Citrus sinensis (L) Osbeck may be used.

2.8. **Classification of "defectives"**

A container that fails to meet the applicable quality requirements as set out in paragraphs 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7 of this standard shall be considered a "defective".

2.9 Acceptance

A lot will be considered as meeting the quality requirements of paragraphs 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7 of this standard when the number of "defectives" as defined in paragraph 2.8 does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods (1969).

3. CONTAMINANTS

3.1 Pesticide Residues

The product shall comply with such requirements as may be specified by the Codex Committee on Pesticide Residues.

3.2 Other Contaminants

3.2.1 The following provisions in respect of contaminants other than pesticide residues have, with the exception of the level for tin content, been endorsed by the Codex Committee on Food Additives:

3.2.1.1	<u>Contaminant</u>	<u>Maximum level</u>
	Arsenic (As)	0.2 mg/kg
	Lead (Pb)	0.3 mg/kg (temporarily endorsed)
	Copper (Cu)	5 mg/kg
	Zinc (Zn)	5 mg/kg
	Iron (Fe)	15 mg/kg
	Tin (Sn)	250 mg/kg provisional limit (not endorsed)
3.2.1.2	Total metal content precipitable by potassium hexacyanoferrate (II)	20 mg/kg, expressed as Fe

4. HYGIENE

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

4.1.1 Micro-organisms capable of development under normal conditions of storage

None

4.1.2 The product shall not contain any toxic substance originating from micro-organisms.

4.2 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Code of Hygienic Practice for Canned Fruit and Vegetable Products and the Code of Hygienic Practice for Deep Frozen Fruit and Vegetable Products, as appropriate.

5. WEIGHTS AND MEASURES

5.1 Fill of Container

5.1.1 Minimum Fill

The orange juice 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.

5.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of paragraph 5.1.1 of this standard shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirement of paragraph 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 Prepackaged Foods (1969).

5.2 Net Contents

5.2.1 Classification of "Defectives"

A container that falls short of the declared net contents, as provided for in paragraph 6.3 of this standard, shall be considered a "defective".

5.2.2 Acceptance

A lot will be considered as being acceptable in respect of net contents of containers 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 (1969).

6. LABELLING (subject to endorsement by the Codex Committee on Food Labelling)

In addition to Sections 1, 2, 4, 5 and 6 of the 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

The name of the product shall be "orange juice".

6.2 List of Ingredients

A complete list of ingredients shall be declared on the label in descending order of proportion.

6.3 Net Contents

The net contents shall be declared by volume 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

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

6.5 Country of Origin

6.5.1 The country of origin of the product shall be declared.

6.5.2 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 purposes of labelling.

6.6 Additional Requirements

The following additional specific provisions shall apply:

6.6.1 The pictorial representation of oranges or orange juice on the label may only be that of the species of fruit present or of the juice therefrom.

6.6.2 Where orange juice requires to be kept under conditions of refrigeration:

- (a) There may be an indication in code of the date of production, that is, the date the final product is packaged for final sale;
- (b) There shall be information for keeping and thawing of the product;
- (c) There may be information for utilization.

6.7 Bulk packs

In the case of orange juice in bulk, the information required in 6.1 to 6.6.1 shall either be placed on the container or be given in accompanying documents.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling for Examination

The number of samples to be taken from all lots for the examination of essential composition and quality factors, minimum fill and determination of net contents shall be in accordance with the Sampling Plans for Prepackaged Foods (1969).

7.2 Methodsof Analysis

(The methods referred to in paragraph 21 and 23 of the Report will be included in this section of the standard after they have been considered by the Codex Committee on Methods of Analysis and Sampling as agreed upon in paragraph 24 of the Report.)

**DRAFT STANDARD FOR LEMON JUICE
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS** ^{1/}

(To be submitted to the Codex Alimentarius Commission at
Step 8 of the Procedure)

^{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 juice, intended for direct consumption, obtained by a mechanical process from sound, ripe lemons (citrus limon, Burm.f.) preserved exclusively by physical means. The juice may be concentrated and later diluted.

2. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

2.1 **Soluble Solids**

The soluble solids content of lemon juice shall be not less than 7.5% by weight as determined by refractometer at 20°C, unconnected for acidity and read as °Brix on the International Sucrose Scales.

2.2 **Essential Oils**

The essential oils content shall not exceed 0.5 ml/kg.

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 lemon juice. The restitution of natural lemon juice flavour to lemon juice from which the flavour has been removed is allowed.

2.5 **Use of Concentrate**

The addition of concentrate to juice is permitted. Only concentrate from Citrus limon Burm.f. may be used.

2.6 **Classification of "defectives"**

A container that fails to meet the applicable quality requirements as set out in paragraphs 2.1, 2.2, 2.3, 2.4 and 2.5 of this standard shall be considered a "defective".

2.7 **Acceptance**

A lot will be considered as meeting the quality requirements of paragraphs 2.1, 2.2, 2.3, 2.4 and 2.5 of this standard when the number of "defectives" as defined in paragraph 2.6 does not exceed the acceptance number (c) of the appropriate sampling plan (Acceptable Quality Level: AQL-6.5; in the Sampling Plans for Prepackaged Foods (1969).

3. CONTAMINANTS

3.1 Pesticide Residues

The product shall comply with such requirements as may be specified by the Codex Committee on Pesticide Residues.

3.2 Other Contaminants

3.2.1 The following provisions in respect of contaminants other than pesticide residues have, with the exception of the level for tin content, been endorsed by the Codex Committee on Food Additives:

3.2.1.1	<u>Contaminant</u>	<u>Maximum level</u>	
	Arsenic (As)	0.2 mg/kg	
	Lead (Pb)	0.3 mg/kg	(temporarily endorsed)
	Copper (Cu)	5 mg/kg	
	Zinc (Zn)	5 mg/kg	
	Iron (Fe)	15 mg/kg	
	Tin (Sn)	250 mg/kg	provisional limit (not endorsed)
3.2.1.2	Total metal content precipitable by potassium hexacyanoferrate (II)	20 mg/kg	expressed as Fe

4. HYGIENE

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

4.1.1 Micro-organisms capable of development under normal conditions of storage

None

4.1.2 The product shall not contain any toxic substance originating from micro-organisms.

4.2 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Code of Hygienic Practice for Canned Fruit and Vegetable Products and the Code of Hygienic Practice for Deep Frozen Fruit and Vegetable Products, as appropriate.

5. WEIGHTS AND MEASURES

5.1 Fill of Container

5.1.1 Minimum Fill

The lemon juice 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.

5.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of paragraph 5.1.1 of this standard shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirement of paragraph 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 Prepackaged Foods (1969).

5.2 Net Contents

5.2.1 Classification of "Defectives"

A container that falls short of the declared net contents, as provided for in paragraph 6.2 of this standard, shall be considered a "defective".

5.2.2 Acceptance

A lot will be considered as being acceptable in respect of net contents of containers 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 (1969).

6. LABELLING (subject to endorsement by the Codex Committee on Food Labelling)

In addition to Sections 1, 2, 4, 5 and 6 of the 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

The name of the product shall be "lemon juice".

6.2 Net Contents

The net contents shall be declared by volume 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.

6.3 Name and Address

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

6.4 Country of Origin

6.4.1 The country of origin of the product shall be declared.

6.4.2 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 purposes of labelling.

6.5 Additional Requirements

The following additional specific provisions shall apply:

6.5.1 The pictorial representation of lemons or lemon juice on the label may only be that of the species of fruit present or of the juice therefrom.

6.5.2 Where lemon juice requires to be kept under conditions of refrigeration

- (a) There may be an indication in code of the date of production, that is, the date the final product is packaged for final sale;
- (b) There shall be information for keeping and thawing of the product;
- (c) There may be information for utilization.

6.6 Bulk packs

In the case of lemon juice in bulk the information required in 6.1 to 6.5.1 shall either be placed on the container or be given in accompanying documents.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling for Examination

The number of samples to be taken from all lots for the examination of essential composition and quality factors, minimum fill and determination of net contents shall be in accordance with the Sampling Plans for Prepackaged Foods (1969).

7.2 Methods of Analysis

(The methods referred to in paragraphs 21 and 23 of the Report will be included in this section of the standard after they have been considered by the Codex Committee on Methods of Analysis and Sampling, as agreed upon in paragraph 24 of the Report.)

**DRAFT STANDARD FOR GRAPEFRUIT JUICE
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS** ^{1/}

(To be submitted to the Codex Alimentarius Commission at
Step 8 of the Procedure)

^{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 juice, intended for direct consumption, obtained by a mechanical process from the endocarp of sound, ripe grapefruit (Citrus paradisi Macfayden), preserved exclusively by physical means. The juice may be concentrated and later diluted.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Soluble Grapefruit Solids

The soluble grapefruit solids content of grapefruit juice (exclusive of added sugar) shall be not less than 9% 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 quantity added shall not exceed 50 g/kg.

2.3 Ethanol Content

The ethanol content shall not exceed 3 g/kg,

2.4 Essential Oils

The essential oils content shall not exceed 0.3 ml/kg.

2.5 Organoleptic Properties

The product shall have the characteristic colour, aroma and flavour of grapefruit juice. The restitution of natural grapefruit juice flavour to grapefruit juice from which the flavour has been removed is allowed.

2.6 Use of Concentrate

The addition of concentrate to juice is permitted. Only concentrate from Citrus paradisi Macfayden may be used.

2.7 Classification of "defectives"

A container that fails to meet the applicable quality requirements as set out in paragraphs 2.1, 2.2, 2.3, 2.4, 2.5 and 2.6 of this standard shall be considered a "defective".

2.8 Acceptance

A lot will be considered as meeting the quality requirements of paragraphs 2.1, 2.2, 2.3, 2.4, 2.5 and 2.6 of this standard when the number of "defectives" as defined in paragraph 2.7 does not exceed the acceptance number (c) of the appropriate sampling plan (Acceptable Quality Level: AQL-6.5) in the Sampling Plans for Prepackaged Foods (1969).

3. CONTAMINANTS

3.1 Pesticide Residues

The product shall comply with such requirements as may be specified by the Codex Committee on Pesticide Residues.

3.2 Other Contaminants

3.2.1 The following provisions in respect of contaminants other than pesticide residues have, with the exception of the level for tin content, been endorsed by the Codex Committee on Food Additives:

3.2.1.1	<u>Contaminant</u>	<u>Maximum level</u>
	Arsenic (As)	0.2 mg/kg
	Lead (Pb)	0.3 mg/kg temporarily endorsed
	Copper (Cu)	5 mg/kg
	Zinc (Zn)	5 mg/kg
	Iron (Fe)	15 mg/kg
	Tin (Sn)	250 mg/kg provisional limit (not endorsed)
3.2.1.2	Total metal content precipitable by potassium hexacyanoferrate (II)	20 mg/kg, expressed as Fe

4. HYGIENE

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

4.1.1 Micro-organisms capable of development under normal conditions of storage - None

4.1.2 The product shall not contain any toxic substance originating from micro-organisms.

4.2 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Code of Hygienic Practice for Canned Fruit and Vegetable Products and the Code of Hygienic Practice for Deep Frozen Fruit and Vegetable Products, as appropriate.

5. WEIGHTS AND MEASURES

5.1 Fill of Container

5.1.1 Minimum Fill

The grapefruit juice 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.

5.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of paragraph 5.1.1 of this standard shall be considered a "defective".

5.1.3 Acceptance

A lot will be considered as meeting the requirement of paragraph 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 Prepackaged Foods (1969).

5.2 Net Contents

5.2.1 Classification of "Defectives"

A container that falls short of the declared net contents, as provided for in paragraph 6.2 of this standard, shall be considered a "defective".

5.2.2 Acceptance

A lot will be considered as being acceptable in respect of net contents of containers 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 (1969).

6. LABELLING (subject to endorsement by the Codex Committee on Food Labelling)

In addition to Sections 1, 2, 4, 5 and 6 of the 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

The name of the product shall be "grapefruit juice".

6.2 Net Contents

The net contents shall be declared by volume 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.

6.3 Name and Address

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

6.4 Country of Origin

6.4.1 The country of origin of the product shall be declared.

6.4.2 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.

6.5 Additional Requirements

The following additional specific provisions shall apply:

6.5.1 The addition of sugars shall be declared on the label.

6.5.2 The pictorial representation of grapefruit or grapefruit juices on the label may only be that of the species of fruit present or of the juice therefrom.

6.5.3 Where grapefruit juice requires to be kept under conditions of refrigeration:

- (a) There may be an indication in code of the date of production, that is, the date the final product is packaged for final sale;
- (b) There shall be information for keeping and thawing of the product;
- (c) There may be information for utilization.

6.6 Bulk packs

In the case of grapefruit juice in bulk the information required in 6.1 to 6.5.2 shall either be placed on the container or be given in accompanying documents.

7. METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

7.1 Sampling for Examination

The number of samples to be taken from all lots for the examination of essential composition and quality factors, minimum fill and determination of net contents shall be in accordance with the Sampling Plans for Prepackaged Foods (1969).

7.2 Methods of Analysis

(The methods referred to in paragraphs 21 and 23 of the Report will be included in this section of the standard after they have been considered by the Codex Committee on Methods of Analysis and Sampling, as agreed upon in paragraph 24 of the Report.)