

**codex alimentarius commission**

FOOD AND AGRICULTURE  
ORGANIZATION  
OF THE UNITED NATIONS  
JOINT OFFICE:

WORLD HEALTH  
ORGANIZATION

Via delle Terme di Caracalla 00100 ROME: Tel. 5797! Telex:  
610181 FAO I. Cables Foodagri

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ALINORM 83/17

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

15th Session

Rome, 4-15 July 1983

REPORT OF THE TWELFTH SESSION OF THE  
CODEX COMMITTEE ON FATS AND OILS

London, 19-23 April 1982

INTRODUCTION

1. The Codex Committee on Fats and Oils held its Twelfth Session in London from 19 to 23 April 1982 under the Chairmanship of Dr P J Bunyan of the United Kingdom. The Session was opened by Professor G A H Elton, Chief Scientific Adviser (Food) and Chief Scientist (Fisheries and Food) at the Ministry of Agriculture, Fisheries and Food, who welcomed participants on behalf of the Government of the United Kingdom.

2. The session was attended by representatives of 34 countries and observers from 12 countries and international organisations. The list of participants including officers from FAO and WHO and the Committee Secretariat is contained in Appendix I to this Report.

ADOPTION OF THE AGENDA

3. The Committee adopted the provisional agenda CX/FO 82/1 with an amendment proposed by the delegation of the United States that the Review of the scope of the Codex standards for Fats and Oils was of sufficient importance to warrant consideration early in the Session and be taken as the fourth item on the Agenda. The proposal was agreed.

MATTERS OF INTEREST ARISING FROM SESSIONS OF THE CODEX ALIMENTARIUS COMMISSION AND OTHER CODEX COMMITTEES

4. The Committee had before it document CX/FO 82/2. It was reported that at the 14th Session of the Commission, it had been announced that the procedure for publication of acceptance and non-acceptance by governments of Codex standards had been revised. The next up-dated edition of the summary of acceptances would be available for the 15th Session of the Codex Alimentarius Commission in July 1983. It would contain two new columns to denote countries not able to give, formal acceptance to a Codex standard but prepared to permit entry of products which conformed with the standard either with or without specified deviations. It was also reported that the Commission had emphasized that nutritional aspects in individual standards had not been neglected. The Commission had decided that the Codex Committee on Foods for Special Dietary Uses (CCFSDU) should have a coordinating function on nutritional aspects in Codex work. It was, however, not intended that CCFSDU should have full endorsement functions. The CCFSDU has been requested to examine its revised terms of reference and to indicate its proposed way of operating to the next session of the Commission. (ALINORM 81/7 and ALINORM 81/39 paras 115-121 & 403).

5. The attention of the Committee was drawn to paragraphs 159 to 165 of the Report of the 14th Session of the Commission (ALINORM 81/39). The Commission had published a revised Procedural *Manual* (Fifth Edition - 1981) incorporating improved Procedures for the Elaboration of World-wide and Regional Codex Standards. Steps 1, 2 & 3 had been combined and Commodity Committees would be able to start work on new standards without the prior permission of the Commission although this would have to be obtained at its next session. Standards would be adopted at Step 8 and in future published as Codex standards together with notifications of acceptances or otherwise. These publications will constitute the Codex Alimentarius. In addition, governments could be asked more formally for comments on draft standards at Step 6 prior to submission to the Commission at Step 5 should the need arise due to the timing of sessions. The delegation of Australia expressed full agreement with the revisions as they related to world-wide standards but re-iterated its concern regarding regional standards. In particular the delegation of Australia objected to Steps 5 and 8 of the Procedure for Elaboration of Regional Standards which provided that "only the majority of the Members of the Region concerned attending the Session (of the Commission) can decide to amend or adopt the draft".

6. It was also reported that the Commission had approved the General Principles for the Establishment *and* Application of Microbiological Criteria for Foods and these will be published as part of the Codex Alimentarius.

7. The Commission had adopted at Step 5 the Draft Standard for [Fat Spreads/Spreadable Table Fats] (ALINORM 81/17, Appendix V) and advanced it to Step 6 of the Procedure. The Commission had also adopted the Standard for Minarine at Step 8.

8. It was reported that the revision of the General Standard for Prepackaged Foods and the elaboration of Guidelines for Nutrition Labelling is being undertaken by the Codex Committee on Food Labelling (CCFL). The delegation of the United States suggested that it would be appropriate for the Codex Committee on Fats and Oils to offer advice and guidance to CCFL on the question of the nutrition labelling of fats and oils with special reference to the fatty acid content. It was agreed that an ad hoc Working

Group should consider this aspect of the Draft Guidelines on Nutrition Labelling and report to the Committee under the Agenda Item - Any Other Business. The delegation of Egypt drew the attention of the Committee to the importance of nutrition labelling. The delegations from the Netherlands, United States, United Kingdom, Canada, Australia and Sweden agreed to form the ad hoc Working Group. (See also discussion of the report of the ad hoc Working Group at paras 87-91 below).

9. It was reported that the Commission had adopted the revised text of the Guidelines on Date Marking for the Use of Codex Committees. The revised text was as follows:

".....,, The "date of minimum durability" (preceded by the words "best before") shall be declared by the day, month and year in uncoded numerical sequence except that for products with a shelf life of more than three months, the month and year will suffice. The month may be indicated by letters in those countries where such use will not confuse the consumer. In the case of products requiring a declaration of month and year only, and the shelf life of the product is valid to the end of a given year, the expression "end (stated year)" may be used as an alternative.

..... In addition to the date, any special conditions for the storage of the food should be indicated if the validity of the date depends thereon.

..... Where practicable, storage instructions should be in close proximity to the date marking."

The Committee agreed that the revised wording should be incorporated into all standards for fats and oils and requested that the Secretariat take the appropriate action,

10. The Committee on Food Additives (CCFA) had commented at its 14th Session (ALINORM 81/12 paras 19-20) that the decision taken by the Committee on Fats and Oils to remove, from the General Standard for Fats and Oils Not Covered by Individual Codex Standards, the specific provision for emulsifiers seemed "inappropriate". The Secretariat explained that the decision was logical since emulsifiers were not necessary for the production of fats or oils as such and inclusion in the General Standard was, therefore, unnecessary. Furthermore, provision for emulsifiers had not been made in the standards for individual oils.

11. After a general discussion of the proposal by the delegation of Belgium to lower the maximum level for polyglycerol esters of interesterified ricinoleic acid in view of its low ADI, the Committee agreed to reduce the maximum permitted level of this additive from 10 to 5 g/kg in the Standard for Minarine and the Draft Standard for [Fat Spreads/Spreadable Table Fats]. A proposal by the delegation of Sweden to exclude this emulsifier from the standard was not accepted. The Secretariat was requested to take appropriate action concerning the Standard for Minarine which had already been adopted at Step 8.

12. The proposed Guidelines on Food Additives Provisions in Codex Standards had been sent to Governments for comment. The Secretariat had been requested to redraft the guidelines in light of government comments which had been received. The amended guidelines would be discussed by CCFA at its next Session in March 1983. (See ALINORM 83/12, paras 38-44).

13. In discussing matters of interest arising from the 13th Session of the Codex Committee on Methods of Analysis and Sampling (CCMAS) (ALINORM 81/23), the

observer from IUPAC reported that it was now the policy of IUPAC to publish the results of collaborative studies when methods of analysis had been approved. On the question of the review of methods of analysis in standards and draft standards, CCMAS had noted the review undertaken by the ad hoc Working Group of this Committee but had asked for further information. The suggestion of the Chairman to establish another ad hoc Working Group during the Session was agreed and the Group would comprise members from the delegations of Malaysia, the United Kingdom, United States plus representatives from IUPAC, ISO and FOSFA. The agenda for the Working Group was agreed as follows:

- 1) Methods of analysis for food additives permitted by Codex Standards for fats and oils (Ref: ALINORM 81/23 para 14).
- 2) Applicability of the general methods for determination of metallic contaminants in fats and oils (Ref: ALINORM 81/23 paras 46-60, Appendix IV).
- 3) Availability of sampling plans for fats and oils (Ref: ALINORM 81/23, para 45 (d)) and sampling plans for food contaminants (Ref: CX/EA 82/8).
- 4) Further consideration of the review of methods of analysis in Standards and draft Standards (ALINORM 81/17, paras 57-60, Appendix X and CX/FO 82/10), including specifically the classification of methods as proposed by CCMAS.

14. The Committee was informed that CCFA at its 15th Session decided at least for the time being not to embark on developing methodology for the analysis of food additives in foods since adequate information was not available.

#### CONSIDERATION OF A PROPOSAL TO AMEND THE SCOPE SECTION OF CODEX STANDARDS FOR INDIVIDUAL EDIBLE FATS AND OILS

15. The Committee had before it working paper CX/FO 82/13 which gave government comments on the amendment to the scope section of Codex standards for individual edible fats and oils proposed by the delegation of the United States. The Chairman reminded the Committee that at the 11th Session there had been general agreement that the GLC fatty acid ranges could also be applied to crude oils but disagreement as to the method of incorporating this specification into the standards. The delegation of the United States explained that most of the oils traded on a world wide basis were crude or only partially refined oils and that the proposed amendment would enhance the usefulness of the Standards for Fats and Oils.

16. The FAD Secretariat in reply to a question by the delegation of the Federal Republic of Germany confirmed that standards should cover materials for further processing to the extent necessary to achieve the purposes of the Codex Alimentarius.

17. The observer from the International Association of Seed Crushers (IASC) stated that his organisation did not wish the scope of the standards to be extended to cover crude oils not edible as such because the present GLC fatty acid ranges were unacceptably wide. The delegation of the United States in reply stated that, as reported at the 9th Session, the GLC fatty acid ranges had been tested and found to be sufficiently precise to identify correctly 269 out of 275 samples of crude oils. The observer of the Federation of Oils, Seeds and Fats Association (FOSFA) supported the statement of the observer from the IASC that several fatty acid ranges were wider than

normally experienced in commercial oils and quoted as an example the linolenic acid content of arachis oil seldom exceeded 0.5% whereas the Codex range allowed up to 1%. The delegation of France supported this statement. The delegation of the United States pointed out that the GLC fatty acid ranges did not exclude the use of other identity criteria.

18. The Chairman noted that in certain cases the range given for a particular fatty acid may require revision. However, this was not relevant to the particular principle under discussion and could be raised under the item concerning the future of work for the Committee. (See para 58)

19. The delegation of the Federal Republic of Germany, supported by the delegation of Argentina, Austria, Belgium, Hungary, the Netherlands, Portugal, Spain, and the United Kingdom, suggested that a note should be included in the standards which stated that the GLC fatty acid ranges may apply to crude oils. These delegations also opposed any changes to the scope section of the standards concerned. The delegation of India pointed out that some straight processed oils were consumed directly and that the proposal by the delegation of the United States was acceptable.

20. The FAO Secretariat, noting that an amendment to the scope section was unacceptable to many delegations, suggested that a separate section to cover raw materials could be added to the standards. The following wording was proposed:

"Raw Materials.....oil used as a raw material for the manufacture of edible.....oil shall comply with the GLC ranges of fatty acid composition as specified in section 3..."

21. The delegation of the United States emphasised its concern that the GLC fatty acid ranges should be applied to all crude oils and expressed SOME reservations about introducing a new section into the existing standards. An alternative solution, proposed by the delegation of Spain, was that the standards could be applicable to crude oils only after the oils had been refined by a standard procedure eg. the American Oil Chemists Procedure.

22. Following further discussion, the Committee agreed that a new section on raw materials should be included in all standards for individual edible oils and that the wording should be as above except that the word "shall" would be placed in square brackets. The amendment was advanced to Step 5 of the Codex Procedure.

23. During the above discussion, the FAO Secretariat had stated that the standards adopted at the 13th Session of the Codex Alimentarius Commission contained GLC fatty acid ranges as part of the section for the identity characteristics. The section when published would contain the following footnote:

"Non-mandatory, however if examined, the GLC ranges of the fatty acid composition (%) shall comply with these values."

24. This statement gave rise to a discussion as to whether the GLC fatty acids ranges were mandatory or non-mandatory. The delegation of Belgium recalled that the GLC fatty acids ranges had originally been intended as guidelines and would not wish them to become mandatory. In contrast, the delegation of the United States expressed the view that the Committee had agreed on the mandatory nature of fatty acids ranges and quoted the Report of the 10th Session of the Committee to support this. The Chairman observed that the report of the 13th Session of the Commission appeared to contradict this view.

25. The delegation of the United Kingdom explained that the original reservations on the acceptability of fatty acid ranges were based on the concern that they might not have been compatible with the traditional identity characteristics eg. Iodine Value etc. However this concern had been shown to have no foundation in a paper presented to the 11th Session of the Committee. The Committee had, therefore reaffirmed that GLC ranges were mandatory but had also agreed that other non-mandatory criteria could be used if necessary to check that a sample is in compliance with the description given to the product. In an answer to a question from the delegation of Norway, the delegation of France suggested that the sterol ranges would be an example of a non-mandatory criterion.

26. The delegation of the Federal Republic of Germany agreed that the explanation given by the delegation of the United Kingdom was correct and that GLC fatty acid ranges were mandatory. The delegation of the Netherlands supported by the delegations of Argentina and Belgium opposed the introduction of mandatory GLC fatty acid ranges.

27. The Committee agreed that the Codex Alimentarius Commission should be asked to reaffirm the decisions taken at the 10th and 11th Sessions of this Committee that GLC fatty acid ranges should be included in all standards for individual edible fats and oils on a mandatory basis. The standards should also contain a footnote that other non-mandatory criteria may be used to ascertain the authenticity of a sample. The Secretariat was requested to submit the amendments, as contained at Appendix II to this Report, to the next Session of the Commission at Step 5. The Committee also agreed to recommend that Steps 6 and 7 of the Procedure should be omitted for the amendment concerning the inclusion of GLC fatty acid ranges into standards at Step 9 of the Procedure. This would bring the earlier standards for individual oils into line with the five standards adopted at the 13th Session of the Commission.

#### REPORT OF THE WORKING GROUP ON THE TECHNOLOGICAL JUSTIFICATION FOR THICKENING AGENTS IN MINARINE

28. The Committee considered the working paper CX/FO 82/3 and Conference Room Document No. 1. The FAO Secretariat reported that CCFA had considered the technological justification for thickening agents in minarine. Subsequently, it had endorsed these provisions with two exceptions. Firstly, tragacanth gum had not been toxicologically cleared by JECFA and thus was not an acceptable additive and should be deleted from the list of thickening agents until information had been provided to establish an ADI. Secondly, the maximum usage level of xanthan gum should be reconsidered in view of its low ADI. The Committee agreed that the maximum level-of use for xanthan gum could be reduced to 5 g/kg. This reduced usage level would be submitted to CCFA for their endorsement and the Secretariat was requested to take appropriate action concerning the Standard for Minarine.

#### CONSIDERATION OF DRAFT STANDARD FOR [FAT SPREADS/SPREADABLE TABLE FATS] AT STEP 7

29. The Committee had before it the above draft standard (ALINORM 81/17, Appendix V) and comments received thereon in working paper CX/FO 82/4 and Conference Room Documents 2 and 7. The Standard for Minarine had been adopted by the Commission since the 11th Session of the Committee and although doubts had been expressed at the Commission about the need for a Standard for [Fat Spreads/Spreadable Table Fats] it had, nevertheless, advanced it to Step 6 of the Procedure. (ALINORM 81/39, paras 341-343). The delegation of Belgium expressed the view that since there was no international market for products in this category, no Codex

standard was necessary. For this reason the Committee should not take further action to elaborate a standard. This general view was supported by the delegations of Austria, Denmark, Federal Republic of Germany, Italy, the Netherlands, Norway, Portugal, and observers from IFMA and IDF.

30 The delegation of the United States declared itself in favour of elaboration of the standard and pointed out that the market for potential trade was also part of the Codex Work Priority Criteria. In support the delegation explained that recent production of margarine-type products in the United States amounted to 2.27 billion lbs. Of this total some 12% (267,000,000 lbs) was for products in the 60% fat range whilst only 3% (58,000,000 lbs) was for products in the 39-41% fat range (minarine type products). It considered that these grounds alone were sufficient proof of the development of products in the higher fat ranges and that the fat range in the Codex Standard for Minarine was too narrow. This view was supported by the delegations of Finland, India, Ireland, Japan and New Zealand.

31. The delegation of Switzerland stated that whilst it was not opposed to the elaboration of the standard, it would not accept the standard since it considered its introduction could lead to confusion of the consumer. However, the standard had been advanced by the Commission to Step 6 and the Committee on Fats and Oils was now considering it at Step 7. In its opinion the countries which had an interest should press ahead and elaborate the standard. In supporting this view the delegation of New Zealand agreed that the Codex Standard for Minarine was too limited and felt that a wider range was necessary. It considered that the standard should be tidied up and presented to the Commission at Step 8.

32. No consensus for or against pursuing the establishment of this standard emerged. The Chairman having recognised the value of the comments from the delegation of Switzerland decided that the Committee should continue to elaborate the standard. The next step was to look closely at the fat range and perhaps limit the standard to particular fat content figures. The delegation of Japan, considering the fat content of products on the Japanese market, supported the fat range in the existing draft standard. The delegation of the United States explained that products were already being produced in the United States with 20% fat content and proposed that the standard should cover the range from 20% to 70%. The delegation of the Netherlands expressed its concern at fat levels as low as 20% and questioned whether such a product could in reality be described as a spreadable fat product. In its opinion to propose a standard for products with such a wide range of fat content could not be described as following a policy of standardisation. There was, in its opinion no question of incorporating the Codex Standard for Minarine into the [Draft Standard for Fat Spread/Spreadable Table Fats] and that the choice for acceptance was either minarine or fat spreads but not both.

33. The Chairman reiterated that the Commission had advanced the draft standard and passed it back for consideration at Step 7. The next stage was to agree a title for the standard and remove the square brackets. On the basis of the written comments received, the countries in favour of developing the standard were divided equally between the alternatives at present included in the draft standard. At this point, the delegation of Australia suggested that the standard should have a double title, and that this be achieved by the removal of the square brackets. This proposal was supported by the delegation of New Zealand. It was agreed to proceed on this basis.

34. The Committee then examined in detail the remaining provisions of the standard and agreed several amendments. In the scope section, the delegation of Norway supported by the delegation of France suggested, that the words "or butter" should be deleted since the products covered by the standard were not necessarily alternatives to butter. This proposal provoked a lengthy discussion on whether the scope section should specify that fat spreads/spreadable table, fats were alternatives to margarine or butter, particularly since this text was not included in the Codex Standard for Margarine. It was finally agreed that the words "and which is intended to be used as an alternative table fat to margarine or butter" should be deleted from the text with objections by the delegations of the Netherlands and Sweden to this decision being recorded.

35. The delegation of the United Kingdom sought confirmation that the wording of the scope section did not preclude a product conforming to this Standard and containing between 39% and 41% fat being described as "fat spread" or "spreadable table fat", even though it might conform also to the Margarine Standard. The Secretariat agreed to seek further advice on this matter.

36. The delegation of the United States proposed that under the optional ingredients Section the provision for egg yolk, sugars and gelatine should be excluded since there was no apparent technological justification for their inclusion. The delegation of Brazil argued successfully for the retention of gelatine and the Committee agreed to the deletion of egg yolk and sugars. On thickening agents, the delegation of the Netherlands questioned whether the maximum levels of 10 g/kg were suitable for all levels of fat. The delegation of the United Kingdom suggested that it would be very difficult to set different maximum levels for products with various fat contents. Further, it had been accepted by CCFA that the levels proposed would ensure that the dietary intake would present no toxicological hazards and the proposed usage levels should remain as they stand. Tragacanth gum was deleted from the list of thickening agents since it had not been toxicologically cleared by JECFA and the maximum level for xanthan gum was reduced to 5 g/kg following a suggestion by CCFA to reconsider the maximum usage level. (See also paragraph 28 above).

37. A request by the delegation of the United States to add TBHQ to the list of antioxidants was accepted and agreed at a level of 100 mg/kg of the fat content as in other standards. The delegation of the United States agreed to forward technical justification for the continued inclusion of calcium disodium salts of EDTA as an antioxidant synergist to the Secretariat who would make the necessary arrangements for its presentation to CCFA. This was necessary because CCFA had postponed endorsement of this additive as it required more data on its technological function. The delegation of the United Kingdom expressed doubts for the need for its inclusion in the Standard and the delegations of Italy, France and Portugal pointed out that the use of EDTA was not permitted in their countries.

38. A request from the delegation of Egypt to add nickel to the list of contaminants at the level of 0.5 mg/kg was deferred until the discussion of Processing Aids. A proposal by the delegation of India, supported by the delegation of the United States, to reduce the maximum level for copper to 0.05 mg/kg was then considered and led to a general discussion of levels of contaminants. The delegation of Malaysia suggested that it was dangerous to set low limits because sophisticated analytical equipment which had to be used to detect contaminants at very low levels was not universally available. The delegation of Brazil supported the retention of existing levels and the delegation of Spain agreed that it would be imprudent to set the levels at a point too low to allow for

verification. The Committee agreed not to make any changes to this section and to the present levels given in the draft standard.

39. The delegation of the United States proposed that the scope of paragraph 8.1.1., Name of the Food, should be extended to allow the terms Fat Spread/Spreadable Table Fat to be replaced by other designations provided that they did not mislead the consumer. The delegations of the Netherlands and the United Kingdom, supported by the delegations of Belgium, Switzerland and Sweden disagreed with this proposal and considered that while provision might be made for alternative names, the terms Fat Spread/Spreadable Table Fat should always be required to appear on the label. In the course of further discussion it appeared that some other delegations supported the original proposal by the delegation of the United States. However, it was eventually agreed to extend the labelling requirements of the Standard by inserting after "/Spreadable Table Fat" the phrase "and in addition thereto any other designation may be used provided that it does not mislead or deceive the consumer in the country in which the product is sold. All products so designated shall conform to this Standard".

40. A proposal to delete section 8.7.3 was agreed on the grounds that a percentage declaration of fat content would give consumers adequate information on which to base their purchases. The delegation of the Netherlands indicated that although they did not oppose the deletion of 8.7.3 they would prefer that only products with a fat content below the level of 35% should be allowed to be designated "low fat". It was recognised that section 9 - Methods of Analysis and Sampling may need to be revised after discussion of the report of the ad hoc Working Group on Methods of Analysis and Sampling.

#### STATUS OF THE STANDARD

41. The Committee decided to advance the revised Draft Standard for Fat Spreads/Spreadable Table Fats as contained in Appendix III to Step 8 of the Procedure.

#### CONSIDERATION OF PROPOSED DRAFT STANDARDS FOR [VEGETABLE GHEE] AND [MIXED ANIMAL AND VEGETABLE GHEE] AT STEP 4

42. The Committee had before it the above standard as contained in ALINORM 81/17 Appendices VI and VII, Working Paper CX/FO 82/5 and Addendum 1 and Conference Room Document 3. Outlining the background, the Chairman noted that although previous discussions had indicated that world trade in ghee products made from fats of animal origin, excluding those made solely from milk fat, was insufficient to justify the elaboration of a separate standard, it was clear from the documents that there was a developing trade which was particularly important to the Netherlands. It was agreed that in deciding on the number and type of standards to be elaborated for ghee products full consideration had to be given to the comments submitted by IDF which outlined the labelling requirements under the Code of Principles concerning Milk and Milk Products.

43. The delegation of Denmark suggested that the Committee should elaborate three standards. One for vegetable ghee, one for mixed animal and vegetable ghee and a third for ghee manufactured solely from fats of animal origin. This proposal had a mixed reception. In general delegations were not concerned about the number of standards which might be elaborated, the main problem was to arrive at a suitable title which would not lead to confusion of the consumer and would not inhibit international trade. So far as the consumer was concerned there were several aspects to consider. The main one was based on religious grounds so far as products containing animal fats were concerned. The delegation of Malaysia highlighted this problem by explaining that a product was

consumed in large areas of the world which was known as vanaspati in India and samna in the middle east countries and that the title was particularly important to countries which could face religious problems if products containing animal fats alone or in combination with vegetable fats were combined under one Standard. This alone pointed to the need for separate Standards.

44. The Chairman pointed out that these were two diverging interests. The observer from the IDF had made it clear that the use of the word "ghee" was not acceptable. Ghee was a dairy product and furthermore the use of the description "imitation ghee" was deprecated by that organisation. The delegation of India also stated that it was opposed to the use of the term "vegetable ghee" and proposed the term "vanaspati". On the other hand a large international trade already existed in the product known as vegetable ghee, particularly from the Netherlands. A further consideration was that the product was available in many countries under a synonym eg. "samna substitute" in Egypt. In the ensuing discussion various permutations of a title for the standards were suggested and eventually the Chairman suggested that the Committee should consider a compromise solution, recognising that the elaboration of two separate standards appeared inevitable. Whilst accepting that unanimous agreement was unlikely so far as the title of the Standards was concerned he proposed that two standards should be elaborated entitled vanaspati/vegetable fat mixture and mixed vanaspati/substitute ghee and that to avoid further delay these titles should be retained in square brackets. In reaching this conclusion he was aware of the divergence of interests and accepted that further debate would be necessary. This suggestion received a mixed reception but the Committee agreed that it appeared to be a way that progress on the standards was possible.

45. Discussion then moved to consideration of the detailed requirements of the Standard for [Vanaspati/Vegetable Fat Mixture]. The delegation of Egypt suggested that under section 3.3.4 the acid value should be reduced to 0.4 mg KOH/g. The delegation of India then suggested a figure of 0.5 mg KOH/g but the Chairman pointed out that the overriding requirement was for not more than 0.6 mg KOH/g and suggested that this requirement be left in square brackets for further consideration. This was agreed.

46. Discussion then centred on item 3.3.6 - the requirement for a Slip Point to be between 36-41°C. The delegation of Malaysia stressed the importance of the slip point being considered against the background of the product being used in a variety of countries which were subject to a wide divergence of temperatures and that it was vital that this factor be reflected in any-range of temperatures to be applied under this requirement. It was agreed that this provision should be referred back to governments for comment on the proposed range and to the suggestion by the delegation of the Netherlands that the specified method for determination should be BS 684/1.3/1976.

47. With regard to food additives the FAO Secretariat reminded the Committee that this section had still to be considered by CCFA and that the heading for this section should reflect this fact. It was agreed that the Section Title should read "Food Additives - to be endorsed by CCFA". In section 4.3 on antioxidants, 4-hydroxymethyl 2, 6-diterbutylphenol was deleted and monoglyceride citrate was added to the list of antioxidant synergists. (section 4.4.4).

48. It was generally accepted that section 4.6 which listed oxystearin as a crystallisation inhibitor should be removed. In addition the delegation of Spain suggested that the Secretariat should investigate the toxicological status of this additive. The delegation of the Federal Republic of Germany, supported by the delegation of France,

expressed their reservations against the large number of additives included in the Standard.

49. The Committee examined the provision concerning packaging (section 7) and agreed to a proposal from the delegation of Australia to delete the requirement for rigid containers. The delegate of India informed the Committee that cans were expensive and a considerable amount of effort was being spent on developing cheaper, more flexible containers.

50. The delegation of the United States proposed that the provision concerning labelling (section 8) should be amended so that it was the same as those in the Standard for Fat Spread/Spreadable Table Fats (ie. shall be designated Fat Spreads/Spreadable Table Fats and in addition thereto any other designation.....). The delegation of Australia favoured the use of wording as given in the Standard for Minarine (ie. shall be designated "Minarine" except that alternative designation ) arguing that in the case of products which are known by a specific designation, provision is already made in the Labelling Section for alternative designations to be used. In the case of products which do not have as yet a specific designation, the Standard would require the use of the general name and in addition a local name may be used. However, the situation is dynamic and it is possible that local names may attain a more widespread usage. The delegation of the Netherlands requested that Governments be asked to comment on this labelling provision and provide the Committee with further information on the local names for these products.

51. The Committee then considered the Draft Standard for [Mixed Animal and Vegetable Ghee] (ALINORM 81/17, Appendix VII). As reported in paragraph 44 it was agreed to amend the title of the Standard to Mixed Vanaspati/Substitute Ghee but to leave this in square brackets for further consideration by governments. The delegation of Norway requested that it should be made clear that the standard related to fats of marine as well as animal origin. The Committee agreed that this was so and asked the Secretariat to amend the Standard accordingly. The product definition was amended to "[Mixed Vanaspati/Substitute Ghee] is a semi-solid product which consists of edible animal and/or marine oils and fats with or without the addition of vegetable oils or fats". On a point of clarification the heading of section 3.1.1 was amended to "Edible Fats and/or Oils" and the first sentence reworded to read "Edible fats and/or oils as defined in Section 2.2.1, whether or not."

52. Section 3.3.3 on texture, was amended in line with the Draft Standard for [Vanaspati/Vegetable Fat Mixture] to "Ranges from granular solid fat crystals dispersed in an oil phase to a smooth finely crystalline texture". Section 3.3.4 relating to acid value was left in square brackets for further consideration although the delegations of India and Egypt suggested levels of 0.5 and 0.4 mg KOH/g respectively. The value given for slip point in Section 3.3.6 was left in square brackets for further consideration and section 3.4 concerning identity characteristics was deleted.

53. In section 4 on food additives, the title was amended to "Food Additives - to be endorsed by CCFA". In section 4.3 on antioxidants , [4-Hydroxymethyl-2, 6-diterbutylphenol] was deleted and TBHQ was added at a level of 100 mg/kg of the fat content. The antioxidant synergist monoglyceride citrate was added to the standard. Section 4.6 on crystallisation inhibitor was deleted from the standard. In the packaging provisions (section 7) the words "in a rigid container" were removed and the date marking provisions in sections 8.7.1 and 8.7.2 reworded to agree with the decisions taken earlier by the Committee (see para 9).

## STATUS OF THE STANDARDS

54. The Committee agreed to advance both the revised Draft Standards for [Vanaspati/Vegetable Fat Mixture] and [Mixed Vanaspati/Substitute Ghee], as contained respectively at Appendices. IV and V of this Report, to Step 5.

## CONSIDERATION OF AMENDMENTS TO THE RECOMMENDED INTERNATIONAL STANDARD FOR EDIBLE RAPESEED OIL. (CAC/RS 24-1969) at Step 4.

55. The Committee considered working paper CX/FO 82/6 which contained government comments on the proposed draft amendments to the standard contained in ALINORM 78/17 Appendix VIII. The Chairman observed that there was no support for the need to declare the level of erucic acid and the Committee agreed that this provision should not be included in the revised standard.

56. The Committee proceeded to examine the provisions for identity characteristics. It was agreed after some discussion, that the provision for brassicasterol should remain "not less than 5% of the total sterols". However, the delegation of the United Kingdom observed that the delegation of Sweden had proposed raising the minimum level of brassicasterol to 8% of the total sterols in order to allow rapeseed oils to be differentiated from mustard seed oils and that governments should be asked to comment on this possibility. The GLC fatty acid ranges were discussed in detail and amended where necessary.

## STATUS OF THE STANDARD

57. The Committee agreed to advance the draft amendments to the Codex Standard for Edible Rapeseed Oil as contained as Appendix VI of this Report to Step 5.

## GLC - RANGES FOR FATTY ACID COMPOSITION OF FATS AND OILS

58. The Committee had noted during its discussions on the application of GLC fatty acid ranges to crude oils and the amendments to the Codex Standard for Rapeseed Oil that the current values for some fatty acid compositions (ALINORM 79/17 Appendix XI) may require revision. (See also paras 17 & 18). The Committee agreed that this item of work should be added to list of items for consideration at a future Session of the Committee. In making this decision, the Committee emphasised that when governments were asked for comments it should be made clear that any data supplied must be accompanied with information concerning the analytical method and evidence that the samples analysed were representative of that oil source. In addition, the number of samples analysed should be sufficient to cover variations due to seasonal, climatic and varietal differences.

## CONSIDERATION OF AMENDMENTS TO THE RECOMMENDED INTERNATIONAL STANDARD FOR OLIVE OIL, VIRGIN AND REFINED, AND FOR REFINED OLIVE-RESIDUE OIL (CAC/RS 33-1980)

58. The Committee had before it working paper CX/FO 82/7 which gave details of two amendments concerning beta-sitosterol and Saturated fatty acids at position 2. The observer from the International Olive Oil Council (IOOC), at the invitation of the Chairman, explained that the level of beta-sitosterol in olive oil had been shown by numerous analyses to exceed 93% of the sum of beta-sitosterol, campesterol and stigmasterol. The delegation of Italy proposed that a limit for campesterol of 4% should also be included in the Standard. This proposal was not supported by the delegations of Spain and Portugal as they had certain reservations which required to be considered in greater depth. The Chairman also pointed out that the IOOC had not made such a

proposal. The delegation of France questioned the need for the amendment to specify SE30 as the only packing material to be used in the GLC column. The delegation of Spain stated that it was necessary to specify the packing material since other materials may give different results. The Committee agreed to the amendment.

60. The Committee then proceeded to consider the amendment concerning saturated fatty acids at position 2 which was agreed following the explanation of its need by the observer from the IOOC.

#### STATUS OF THE AMENDMENTS

61. The Committee agreed to combine both amendments and that the combined amendment should be advanced to Step 5 of the Procedure. The Committee also agreed to recommend to the Commission that Steps 6 and 7 of the Procedure be omitted as the content of the amendments was uncontroversial and had been supported by the IOOC. The amendment is at Appendix VII to this Report

#### PROCESSING AIDS

62. The Committee considered working paper CX/FO 82/8 and Conference Room Documents numbers 4 and 8. The Chairman reminded the Committee that it had previously agreed that the list of processing aids contained in ALINORM 81/17, Appendix IX, was an open list and purely advisory. The Committee was also reminded that the Commission had agreed that processing aids did not need to be declared on packaging labels. The FAO Secretariat reported that the CCFA at its 15th Session had prepared an extensive inventory of processing aids which included those listed by this Committee. The revised inventory was to be sent to governments for their comments with a specific request for information on residue levels and methods of analysis for residues. This would enable the CCFA to identify those processing aids which leave unacceptably high residues and which might require toxicological examination by JECFA. The FAO Secretariat also stated that JECFA at its 25th Session had asked bodies such as Codex to provide information on solvent residues and on the impurities present in extraction solvents together with information on residues resulting from the presence of these impurities. The delegation of the United States observed that the CCFO had already provided data on the levels of solvent residues. During further discussion, it was pointed out that the residual levels of some processing aids were high enough to be capable of performing a technological function and could be considered to be food additives.

63. The Chairman suggested that, in the light of the above comments, the Committee should take no further action other than add those additional processing aids contained in government comments. The delegation of Belgium supported by the delegation of France, noted that JECFA had recommended that 2-nitropropane should not be used in the preparation of food. The Chairman reminded the Committee that all processing aids reported to be used by countries were to be included in the inventory. Further, it should be noted that not all the aids were acceptable to all countries on either technological or toxicological grounds. The Committee accepted this statement but agreed that the views of JECFA concerning individual processing aids should when available be included in the inventory.

64. The delegation of Argentina explained to the Committee its legislation concerning processing aids and suggested a number of changes to the inventory. The delegation of the United Kingdom stated that the inventory should also contain processing aids used

in the manufacture of composite products such as margarine and that the title of the inventory should be amended accordingly. This was agreed to by the Committee.

65. The representative of the WHO asked that toxicological evidence on the safety in use of trichlorethylene and stabilisers used therein should be sent to JECFA following the request from the delegations of Italy and Spain to include this processing aid in the inventory. The Committee also agreed that bactericidal detergents should be included in the inventory.

66. The Committee agreed that a revised list of processing aids should be included as Appendix VIII to this Report. Governments should also be asked for further information concerning the levels of residues resulting from the use of processing aids.

#### IDENTITY CHARACTERISTICS BASED ON STEROL RANGES

67. The Committee had before it working paper CX/FO 82/9 and Conference Room Document No. 5. In introducing the subject the Chairman said that although it had been generally agreed that mandatory provisions relating to sterol ranges were desirable, there was generally insufficient evidence available at present on which to base these provisions. Despite the fact that research was being undertaken, it was unlikely that sufficient data would be available on which to reach sound conclusions in the near future.

68. The delegation of Italy reported that the results obtained using SE30 for rapeseed oil (both of high and low erucic acid types) and olive oil were reliable and could be put to practical use. The Committee recognised that further research was necessary into the variations of sterol composition relative to the source of the oil and also the extent of the influence which processing had on relative and absolute levels of sterols.

69. In response to a suggestion that it might be prudent to remove this item from the Agenda and reinstate it when necessary, the representative of IUPAC observed that he was optimistic that a common method of analysis would be agreed as the choice of column packing influenced the results. He considered that it was advisable to retain the item. This was agreed and the Chairman suggested that the Report should record that those bodies which were capable of taking action to develop comparable methods of analysis should be encouraged whenever possible to do so.

#### REVIEW OF METHODS OF ANALYSIS IN STANDARDS AND DRAFT STANDARDS

70. The Committee had before it working paper CX/FO 82/10. The ad hoc Working Group set up by the Committee had examined this paper and also the other papers referred to in its agenda (see para. 13). The Chairman of the ad hoc Working Group presented the main conclusions of the Working Group to the Committee. The full report of the ad hoc Working Group is at Appendix IX to this Report.

71. The ad hoc Working Group considered the applicability of the general methods of analysis for the determination of metallic contaminants proposed by CCMAS. The general methods proposed for the analysis of lead and copper were considered unacceptable for their determination in fats and oils and dry ashing procedures were suggested instead. The ad hoc Working Group reconsidered the current methods of analysis specified in Codex standards for fats and oils, particularly in response to the request of CCMAS on the basis of revised General Principles for the Establishment of Codex Methods of Analysis and Sampling (ALINORM 81/23, para 41-45). The updated references to the methods of analysis for fats and oils and their classifications are included in the Report of the ad hoc Working Group.

72. The ad hoc Working Group felt unable to comment in detail on the paper on Sampling Plans for Determination of Contaminants (CX/FA 82/8) referred to the Committee by CCFA since it had only been available as a Conference Room Document. The ad hoc Working Group however, considered the paper important, listed some comments in the report and agreed to correspond by post. It was noted that the ISO Draft International Standard (ISO/DIS 5555) Animal and Vegetable Fats and Oils - Sampling, which has been circulated for comments could be used after its finalisation as a sampling plan for fats and oils'.

73. As regards the analysis of food additives in fats and oils, the Working Group recognized that it is the responsibility of CCFA to consider methods of analysis for determination of food additives in foods. The Working Group felt that the method for determination of slip point which ISO is collaboratively testing should be suitable for inclusion in the Draft Standards for [Vanaspati/Mixed Vegetable Fat] and [Mixed Vanaspati/Substitute Ghee].

74. The Committee accepted the report of the ad hoc Working Group and proposed that i) the new procedures based on dry ashing for estimation of copper and lead in fats and oils and ii) the updated references of the methods of analysis for fats and oils along with their classification should be included into the existing Codex standards for fats and oils, after endorsement by CCMAS. The Secretariat was requested to take appropriate action with regard to standards at Step 9 of the Procedure.

#### CONSIDERATION OF NEW METHODS OF ANALYSIS

##### a) Determination of Erythrodiol Content of Grapeseed Oil

75. The Committee considered working paper CX/FO 82/11. The Chairman reviewed the background to this item and reported that IUPAC was evaluating a method of analysis for the determination of the erythrodiol content of grapeseed oil which was being collaboratively tested. He then asked for comments from IUPNC. The observer from IUPAC reported that the IUPAC Working Party had made some progress in developing a method of analysis and that promising results had been obtained although it was recognised that further work was needed before it could be confidently employed to detect a level of erythrodiol content of not less than 2% m/m of the total sterol content as required by the Standard for Edible Grapeseed Oil. The delegate of Spain (Chairman of the IUPAC Working Party) confirmed this statement and went on to inform the Committee that studies were continuing at several laboratories and again the results were promising. The results of the collaborative analyses carried out last year seem to indicate the greater reproducibility of expressing the erythrodiol content in absolute terms although it is however premature to draw any firm conclusions. IUPAC proposed to wait for completion of these studies before deciding details of the most suitable method. The Chairman recorded that a new method was well under way to development but that it may be necessary at a future Session to amend the standard to express the erythrodiol content in relation to the beta sitosterol content.

##### b) Determination of the Clarity of Sunflower Seed Oil

76. The Chairman pointed out that the delegation of Yugoslavia had raised the need for a method of analysis to determine the clarity of sunflower seed oil on two previous occasions and invited comments. The delegation of Yugoslavia stated that a method of analysis had been published by IASC and that this was acceptable. The representative of the IASC confirmed that clarity had been a problem with sunflower seed oil and that a

new method of analysis was to be published shortly in the Journal of American Oil Chemists Society.

#### CONSIDERATION OF CONTENT AND FORMAT OF COMPENDIUM OF CODEX STANDARDS FOR FATS AND OILS

77. The Committee had before it a list of proposed items for inclusion into a Compendium of Codex Standards for Fats and Oils (ALINORM 81/17 Appendix XI) and comments thereon in CX/FO 82/12. The Committee recalled that at its 10th Session it had been informed that such a Compendium would be published which could contain in addition to the standards themselves a number of the decisions of the Committee and principles relative to the actual standards. At its 11th Session, the Committee had discussed a possible format for such a Compendium. However, it had been decided that governments should be requested to examine the list of items and submit their comments.

78. Written comments received were in favour of the Compendium. However the Federal Republic of Germany proposed deletion of the reference to processing and the Netherlands wished to exclude the chapter on the nutritional value of fats and oils. The FAO Secretariat informed the Committee that the compendium would now form part of the Codex Alimentarius and that it was intended to issue a volume on Codex Standards for Fats and Oils in a few months time. A large number of general items contained in the list in ALINORM 81/17, Appendix XI would, be covered by the Volume of the Codex-Alimentarius on General Matters.

79. Explanatory Notes on certain other matters and on those which were specific for fats and oils would be part of the Codex Volume on Fats and Oils. Since it had been decided earlier during the session to include GLC ranges into the Standards themselves, no additional tabulation of these values was necessary (see para 27 above).

80. The Chairman expressed the Committee's satisfaction with the above arrangements and pointed out that a decision had still to be taken on in the inclusion of matters relating to processing aids and to the nutritional value of fats and oils. Several delegations expressed their view that the Committee should not attempt to give advice on the nutritional value of fats and oils since the necessary expertise was not available in this Committee. It was noted that the inventory of processing aids would be referred to CCFA for incorporation in an inventory of processing aids for all foodstuffs. The Committee agreed that the two items on processing and on nutritional value of fats and oils should not be included in the Codex Standards for fats and oils. The delegation of Egypt stated that it was in favour of the inclusion of a section on nutritional matters. It was also proposed to include a bibliographic reference to Food and Nutrition Paper No 3 (Report of the FAO/WHO Expert Consultation on the Dietary Fats in Human Nutrition.) The Committee did not agree to this proposal.

81. The Committee was informed that, following future sessions of the Commission, amendments, new standards and other documents would be published as supplements to the Codex Alimentarius.

#### CONSIDERATION OF PROGRAMME OF WORK FOR FUTURE SESSIONS

82. The Committee had before it working paper CX/FO 82/14. The Chairman observed that several of the work items listed had been completed as a result of decisions made during the present session. The Secretariat presented to the Committee a list of items which would remain to be considered at the next session of the Committee.

83. The delegation of India requested that the Committee consider developing standards for sal fat and mango kernel fat. The delegation of Malaysia suggested that the detection of pork fat in food should be included in the work programme. The delegation of Canada stated that although pork fat was characterised by a high percentage of palmitic acid at the 2-position, it could not be detected when mixed with other fats at a low level. The delegation of Malaysia also suggested that there was a need for a "code of practice" for the handling and transport of bulk oil. The observer of FOSFA supported this proposal and stated that this could be extended to cover storage on land.

84. The delegation of the Netherlands supported by the delegation of the United Kingdom expressed the view that the small amount of work remaining did not warrant the expense of arranging a further meeting of the Committee during the next Session of the Commission. The delegation of Belgium stated that it was difficult to decide at present if and when a further meeting of the Committee would be needed as further items of work may arise from the work of other Codex committees.

85. In reply to a question from the delegation of the United Kingdom, the FAO Secretariat explained that the work of committees which had been adjourned could be undertaken by working groups set up for this purpose or by correspondence. However it had been found that neither option was as effective as a full committee meeting. The delegation of Switzerland supported this view. The delegation of the United States agreed that additional items of work might arise from other sources and it was important that the Committee itself should decide if and when it should adjourn. It also proposed that the Secretariat and Host Government should be entrusted with the responsibility of deciding when there was sufficient work on the agenda to warrant convening a further session of the Committee.

86. The Committee agreed to this proposal and that the remaining items of work should be listed in this Report (Appendix X). The Committee also agreed that the views of the Codex Alimentarius Commission should be obtained.

## OTHER BUSINESS

### (a) Comments on Proposed Draft Guidelines on Nutrition Labelling

84. As agreed earlier in the Session (see para 8) an ad hoc Working Group had elaborated comments on behalf of the Committee on Section 4.3.1.(d)(ii) of the above guidelines contained in ALINORM 81/22 Appendix VI for submission to the forthcoming Session of the Codex Committee on Food Labelling.

85. The proposed comments were distributed as a Conference Room Document and introduced by the delegation of the Netherlands. In the course of the discussion, the text of the ad hoc Working Group proposals was amended to read:

(i) The Codex Committee on Fats and Oils concluded that in the light of current nutritional knowledge, consumer awareness and the practicalities of analytical methodology:

a. a claim regarding the fatty acid composition of a food should be accompanied by a declaration solely related to the maximum percentage content of saturated fatty acids and the minimum percentage content of polyunsaturated fatty acids - as such or their fat/oil equivalents;

b. when a claim is made regarding the trans fatty acid content of a food, the maximum percentage of the total trans fatty acids should be declared.

(ii) The term "saturated fatty acids" needs no further explanation; the term "polyunsaturated fatty acids" means "all cis methylene interrupted polyunsaturated fatty acids."

(iii) The Committee further strongly recommended that the requirement for the declaration of cholesterol should be deleted for reasons similar to those given in paragraph (i) above. However, if the Codex Committee on Food Labelling decides to retain this requirement it should be disassociated from the provision relating to fatty acid claims, forming instead a separate provision 4.3.1.(d)(iii), and the last six words should be deleted.

89. The Working Group also made the following recommendations as to suitable methods of analysis for the different types of fatty acids mentioned above: saturated fatty acids may be determined by GLC; cis-cis methylene interrupted polyunsaturated fatty acids may be determined by the lipoxidase method; and trans fatty acids may be determined by infra-red spectroscopy.

90. During the ensuing discussion, the delegation of the United Kingdom drew attention to the fact that in certain cases other methods would need to be used for trans and polyunsaturated fatty acid determination. The delegation of Sweden pointed out that these fatty acids were more correctly described as polyunsaturated fatty acids with cis-cis methylene interrupted double bonds. Several delegations pointed out that it was important to specify a method for the determination of cholesterol. The delegation of Malaysia stated that when a declaration of fatty acid composition is made, it is not sufficient to declare only the content of saturated and polyunsaturated acids. It is now known that nutritionally trans-acids behave as saturated acids and therefore a declaration of fatty acid composition is misleading if it does not include a declaration of trans fatty acids. Other delegations stated, that they could not agree with the view expressed by the delegation of Malaysia. The delegation of Egypt drew the attention of the Committee to the importance of nutrition labelling including trans-fatty acids, P/S ratio and cholesterol content in products containing oils and fats.

91. The Committee agreed to submit their comments as contained in para 88 *above* to the 16th Session of the Codex Committee on Food Labelling and also to draw attention to their other comments contained in paras 89-90.

(b) Carry-over Principle

92. The Committee recalled that it had briefly discussed the carry-over principle at its 10th Session. However, at that time no decision had been taken with regard to its applicability to the Codex Standards for fats and oils. The FAO Secretariat explained the relevant paragraphs of the carry over principle as contained in the Advisory List on the Use of Food Additives (Part II of CAC/FAL 5-1979).

93. It was pointed out that additives carried over from ingredients in accordance with para 4 of the principle were treated as food additives. Additives carried over in accordance with para 3 ie. in very small quantity and having no technological function in the product need not be declared on the label.

94. The Committee was requested to decide whether the carry-over principle was relevant to products covered, by the Codex Standard for fats and oils; ie. whether there was a possibility that food additives might be carried over from ingredients. It was pointed out that it might not be possible to apply the same decision to all standards in view of the fact that some involved individual oils whereas others involved composite products. The delegation of the United States expressed the view that the carry over

principle was (a) not relevant for Codex standards for individual fats and oils and (b) should apply to Codex standards for composite products such as margarine, minarine, vanaspati, ghee substitute and to the General Standard for Fats and Oils not Covered by Individual Standards. Other delegations agreed with the view expressed under (b) above but felt that further consideration should be given to the standards referred to under (a) above.

95. The Committee agreed that Paragraph 3 of the carry-over principle should apply to the Codex Standards for composite products elaborated by this Committee and that Government comments should be requested on the applicability of the carry-over principle to Codex Standards for individual fats and oils.

96. The delegate of Australia on behalf of all participants at the meeting expressed his gratitude to Her Majesty's Government for its hospitality and expressed his appreciation for the splendid reception at Lancaster House and in particular to Mrs Peggy Fenner and her husband. He also wished to record his appreciation of the excellent way in which the meeting had been chaired by Dr. Bunyan and to the Secretariat including the interpreters and translators for helping the meeting run so smoothly.

#### DATE AND PLACE OF NEXT SESSION

97. In the light of the discussions on the future work of the Committee, it was agreed that should a further meeting be necessary the Secretariat and Host Government would notify member countries and interested international organisations of the time and place.

LIST OF PARTICIPANTS  
LISTE DES PARTICIPANTS  
LISTA DE PARTICIPANTS

Chairman : : Dr. P.J. Bunyan  
Président : : Ministry of Agriculture  
Presidents : : Fisheries and Food  
Great Westminster House  
Horseferry Road  
London SW1P 2AE  
United Kingdom

ARGENTINA  
ARGENTINE

J.A. Ruiz  
49 Belgrave Square  
London SW1  
United Kingdom

AUSTRALIA  
AUSTRALIE

E.S. Hoffman  
Australian High Commission  
Australia House  
Strand  
London WC2B 4IA  
United Kingdom

AUSTRIA  
AUTRICHE

Dr. E. Schmidl  
Osterreichische Unilever Ges.m. b . H.  
Werk Atzgersdorf,  
A-3462 Utzenlaa 12, Austria

BELGIUM  
BELGIQUE  
BELGICA

R.J.L. Van Havere  
Ministère de la Santé Publique  
Inspection des Denrées Alimentaires  
RAC Vesalius 4  
B 1010 Brussels, Belgium

M.P.F. Meyers  
Ministère des Affaires Economiques  
Square de Meeûs, 23  
B.1040, Brussels, Belgium

M.P.V. Fondu  
University of Brussels  
39 Fr. Roosevelt Av.  
1050 Brussels, Belgium

BENIN

A. Alexis Egbako  
Ministère de l'Industrie, des Mines et de  
l'Energie  
Sonicog B.P. 312  
Cotonou  
Benin

BRAZIL

BRESIL

BRASIL

Ms T. Nunes  
Ministério da Agricultura  
Venâncio 2000  
Bloco B/60 – S  
342 – Brasília  
Brazil

Dr. R. Vianni  
Fundação Oswaldo Cruz-INCQS  
Avenida Brasil, 4365  
Rio de Janeiro  
Brazil

CANADA

Dr J K G Kramer  
Animal Research Centre  
Agriculture Canada  
Room 4446  
K W Neatby Building  
Ottawa, Ontario

G.D. Cooper  
Canadian High Commission  
1 Grosvenor Square  
London W1  
United Kingdom

CONGO, People's Republic of  
Republique Populaire du CONGO

G. Tchikaya  
Ministere de l'Industrie et de la Pêche

G. Nfoutou  
Ministere de l'Industrie et de la Pêche

DENMARK  
DANEMARK  
DINAMARCA

N.E. Michaelsen  
The State Quality Control for Dairy  
Products and Eggs etc.  
Skt. Annae Plads 3  
DK 1250 Copenhagen K, Denmark

J. Errboe  
Aarhus Oliefabrik A/S  
Postbox 50  
DK 8100 Aarhus C  
Denmark

Vagn Jespersen  
A/S C.E. Bast's Eftf  
44 Ingerslevsgade  
DK-1705 Copenhagen V.  
Denmark

DOMINICA REPUBLIC OF

Alfredo. A. Ricart  
Embassy of the Dominican Republic  
4 Braemar Mansions  
Cornwall Gardens  
London SW7

EGYPT  
EGYPTE  
EGIPTO

M.H. Osman  
76 Mahmoudia Street  
Alexandria  
Egypt

M. Mansour  
Salt & Sad Co. for Oil Processing  
Alexandria, Egypt

S.M. Galal Abd-el Aziz  
Cairo Oil & Soap Co.  
6 Midan El- Falaky  
Cairo, Egypt

FINLAND  
FINLANDE  
FINLANDIA

Dr. Y.K. Salminen  
National Board of Trade and Consumer  
Interests  
Box 9  
SF-00531 Helsinki 53  
Finland

T. Kiutamo  
Technical Research Centre of Finland  
Food Research Laboratory  
Biologinkuja 1  
SF-02150 Espoo 15  
Finland

Dr. E. Petäjä  
Tullihallitus  
Erottajank, 2  
00100 Helsinki 10  
Finland

FRANCE  
FRANCIA

Mrs. M. Solere  
Ministère Consommation  
20 Av. République  
Massy 91305

GERMANY, Fed. Rep. Of  
ALLEMAGNE, Rép. Féd. d'  
ALEMANIA, Rep. Fed. de

Dr. H. Wessels  
Bundesanstalt für Fettforschung  
Piusallee 68-76  
D-4400 Munster  
Germany, Fed. Rep. of

Dr. Reinhard Tiebach  
Wiss Angestellter  
Bundesgesundheitsamt  
Thielallee 88-92  
D-1000 Berlin 33  
Germany, Fed. Rep. of

V.K. Ragotzky  
Union Deutsche Lebensmittel-werke  
GmbH  
Postfach 10 15 09  
D-2000 Hamburg 1  
Germany, Fed. Rep. of

HUNGARY  
HONGRIE  
HUNGRIA

Dr. Éva Kurucz  
National Enterprise for Vegetable Oil  
and Detergent Industry  
1151 Budapest XV  
Horvath Mihaly U.2.  
Hungary

Dr. M. Jeranek.  
Research Institute on Vegetable Oils  
and Detergents Industry  
Budapest  
X Maglodi U6  
Hungary

INDIA  
INDE

T. Prakash  
State Trading Corporation of India Ltd  
8 South Audley Street  
London W1Y 5DQ

K.R. Subramanian  
State Trading Corporation of India Ltd  
8 South Audley Street  
London W1Y 5DQ

Dr. M.K. Kundu  
Ministry of Civil Supplies  
90 Nehru Place  
N. Delhi 110019  
India

IRELAND  
IRELANDE  
IRLANDA

V. Roche  
Department of Industry & Energy  
Kildare Street  
Dublin  
Ireland

ITALY  
ITALIE  
ITALIA

Professor E. Tiscornia  
Istituto Chimica Farmaceutica  
dell'Università  
Viale Benedetto XV/3  
16132 Genova, Italy

Professor E.G. Fedeli  
c/o Stazione Sperimentale di e Grassi  
Via Cristoforo, Colombo 79  
Milan, Italy

Mrs M. Cipolletta  
Ministero Sanità  
Roma, Italy

Mrs O. Mancini  
Ministero Sanità  
Roma, Italy

JAPAN  
JAPON

Mr M. Kakibaya  
Embassy of Japan  
46 Grosvenor Street  
London, United Kingdom

Mr T. Maki  
Ministry of Agriculture, Forestry and  
Fisheries (Shohi Keizai Ka)  
1-2-1 Kasumigaseki, Chiyoda-ku  
Tokyo 100, Japan

Mr K Miki  
Japan Margarine, Shortening and Lard  
Industries Association  
27-8 Nihonbashi Hama-Cho, Chuo-ku,  
Tokyo, Japan

Mr K. Yoshida  
Japan Margarine, Shortening and Lard  
Industries Association  
27-8 Nihonbashi Hama-Cho, Chuo-ku,  
Tokyo, Japan

Mr H. Watanabe  
Japan Oilseed Processors Association  
Usi Kogyo - Kaikan, Nihon Bashi chuo-  
ka, Tokyo, Japan

KOREA, Republic of  
COREA  
COREE

C.H. Kyung  
Embassy of the Republic of Korea 4  
Palace Gate  
London  
W8 5NF

LIBYA  
LIBIA  
LIBYE

Y.O. El Abyiad  
Secretate of Health  
Tripoli, Jamahiria, Libya

MALAYSIA  
MALAISIE  
MALASIA

Mohd Salleh Kassim  
Palm Oil Registration and Licensing  
Authority  
Porla TKt 4 Blk B  
Pejabat Kompleks Damansara  
Jalan Dungun  
D'sara Heights K-Lumpur  
Malaysia

K.G. Berger  
Palm Oil Research Institute of Malaysia  
(PORIM)  
18th Floor, Angkasa Raya,  
Ampang Road Kuala Lurnpur, Malaysia

Dr. Boon Keng Tan  
Palm Oil Research Institute of Malaysia  
(PORIM)  
18th Floor, Angkasa Raya,  
Anpang Road  
Kuala Lumpur, Malaysia

R.D. Amarasingham  
Department of Chemistry  
Jalan Sultan  
Petaling Jaya  
Selangor  
Malaysia

Mrs Soh Swee-Keng  
The Standards & Industrial Research  
Institute of Malaysia (SIRIM)  
PO Box 35  
Shah Alam  
Selangor, Malaysia

MEXICO  
MEXIQUE

F.D.D. Lombardo  
Insurgentes  
Sur. 3696-B  
Halpan  
Mexico D.F.

NETHERLANDS  
PAYS-BAS  
PAISES BAJOS

Dr. R.F. van der Heide  
Ministry of Public Health and  
Environmental Protection  
Dr. Reyersstr 10  
Leidschendam  
The Netherlands

R. van Slooten  
Ministry of Agriculture & Fisheries  
PO Box 20401  
2500 EK The Hague  
The Netherlands

G.J. van Beers  
Nassaukade 3  
Rotterdam  
The Netherlands

R. Norg  
Commodity Board for Margarine, Fats &  
Oils  
PO Box 29739  
2502 IS The Hague  
The Netherlands

NEW ZEALAND  
NOUVELLE-ZELANDE  
NUEVA ZELANDIA

T.L. Hall  
New Zealand High Commission  
Attach (Dairy Products)  
New Zealand House  
Haymarket  
London SW1Y 4TQ, United Kingdom

M.K. Austin  
New Zealand High Commission  
New Zealand House  
Haymarket  
London SW1Y, United Kingdom

NORWAY  
NORVEGE  
NORUEGA

G. Lambertsen  
Directorate of Fisheries'  
Bergen, Norway

J. Race  
Norwegian Codex Alimentarius  
Committee  
PO Box 8139 Dep.  
Oslo 1, Norway

T. Grimsvang  
A/S Denofa Og Lilleborg Fabriker  
PO Box 40  
1601-Fredrikstad, Norway

H. Simonsen  
Ministry of Agriculture  
Oslo DEP,  
Oslo, Norway

PORTUGAL

Helder M.P. de L. Duarte Costa  
Instituto de Azeite e Productos  
Oleaginosos  
Av. Sidonio País, 10-1-  
1098 Lisbon, Portugal

Ms E Silva  
Institute de Qualidade Alimentar  
Rua Sociedade  
Farmacêutica-39  
Lisbon  
Portugal

SPAIN  
ESPAGNE  
ESPANA

Dr. J. Gracian Tous,  
Instituto de la Grasa y sus Derivados  
Av da. Padre Garcia Tejero 4  
Seville (12)  
Spain

A.B. Artacho  
Ministerio Agricultura Pesca y  
Alimentacion  
P. Infanta Isabel N° A  
Madrid, Spain

SWEDEN  
SUEDE  
SUECIA

Ms. E. Siikanen  
The National Food Administration  
Box 622  
S-751 26 Uppsala, Sweden,

J.S. Ragnar Ohlson  
Karlshamns oljefabriker AB  
S-292 00 Karlshaim, Sweden

L. Reio  
The National Food Administration  
PO Box 622  
S-751 26 Uppsala, Sweden

Ms. E.G. Johansson  
Arla  
S-105 46 Stockholm, Sweden

O.L. Levin  
Margarinbolaget AB  
Box 30025  
S-104 25 Stockholm, Sweden

R. Marcuse  
Scandinavian Forum for Lipid  
Research and Technology c/o SIK, Box  
5401 S-402 29 Göteborg, Sweden

SWITZERLAND  
SUIESE  
SUIZA

P. Rossier  
Head of Codex Section  
Federal Office of Public Health  
Haslerstrasse 16  
CH-3008 Berne, Switzerland

H. Tinner  
Sais  
Horn, Tg  
Switzerland

THAILAND  
THAILANDE  
TAILANDIA

Mrs. R. Panpaprai  
Department of Science Service  
Ministry of Science, Technology and  
Energy  
Rama VI Rd.  
Bangkok  
Thailand

TUNISIA

T Amamou  
Office National de l'huile  
10 Avenue Jean Jaures  
Tunis

Tunisia

T Guerhazi  
Office National de l'huile  
10 Avenue Jean Jaures  
Tunis  
Tunisia

UNITED KINGDOM  
POYAUME-UNI  
REINO UNIDO

B.J. Harding  
Ministry of Agriculture, Fisheries and  
Food  
Great Westminster House  
Horseferry Road  
London SW1P 2AE, United Kingdom

L.E. George  
Ministry of Agriculture, Fisheries and  
Food  
Great Westminster House  
Horseferry Road  
London SW1P 2AE, United Kingdom

Dr R. Wood  
Ministry of Agriculture, Fisheries and  
Food  
65 Romney Street  
London SW1P 3RD, United Kingdom

W.D. Pocklington  
Laboratory of the Government Chemist  
Cornwall House  
Stamford Street  
London SE1 9NQ, United Kingdom

R.J. Cunningham  
Van den Berghs and Jurgens Ltd  
Sussex House  
Burgess Hill  
Sussex, United Kingdom

A.P. Allen  
East Sussex County Council  
PO Box 5  
County Hall  
Lewes, Sussex, United Kingdom

Mr A.A. Swetman  
Tropical Products Institute  
5662 Grays Inn Road  
London, WC1X 8LU  
United Kingdom

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

Dr. R.W. Weik  
Assistant to Director  
Food and Drug Administration  
Bureau of Foods (HFF-4)  
200 C Street, SW  
Washington DC 20204, USA

A.P. Bimbo  
Zapata Haynie Corp.  
PO Box 175  
Reedville Virginia 22539, USA

Mrs. Gloria E.S. Cox  
Cox and Cox Investments  
12006 Auth Lane  
Silver Spring  
Maryland 20902, USA

W.W. Goodrich  
Institute of Shortening and Edible Oils  
Inc.,  
1750 New York Ave. NW  
Washington DC 20006, USA

J.M. Hasman  
CPC International  
1120 Commerce Ave.  
Union N.J. 07083

Dr. R.D. O'Neill  
DP Joyce Research Centre  
16651 Sprague Road  
Strongsville, Ohio 44136, USA

Dr. R.J. Sims  
General Foods Corp.  
Technical Center  
White Plains  
New York, 10626, USA

Dr. W.H. Tallent  
US Department of Agriculture  
1815 N. University Street  
Northern Regional Research Centre  
Peoria, Illinois 61614, USA

YUGOSLAVIA  
YUGOSLAVIE

Ms D Novicevic  
Savezni Zavod Za Standard izacju  
Yugoslavia

Mrs L Rajcic  
Tvornica Ulja  
Zagreb  
Yugoslavia

I Ekart  
Tvornica Ulja  
Zagreb  
Yugoslavia

INTERNATIONAL ORGANIZATIONS  
ORGANISATIONS INTERNATIONALES  
ORGANIZACIONES  
INTSRNACIONALES

ASSOCIATION OF OFFICIAL  
ANALYTICAL CHEMISTS (AOAC)

Dr. R.W. Weik  
Assistant to Director  
Bureau of Foods (HFF-4)  
Food and Drugs Administration  
Washington DC 20204, USA

FEDERATION OF OILS, SEEDS AND  
FATS ASSOCIATION (FOSFA)

Dr. J.B. Rossell  
Leatherhead Food Research  
Association  
Randalls Road  
Leatherhead  
Surrey, United Kingdom

M. Pike  
54 Middle Gordon Road  
Canterley, Surrey, United Kingdom

INTERNATIONAL DAIRY  
FEDERATION (IDF)

R.A. Dicker  
Research and Development Division  
Milk Marketing Board  
Giggs Hill Green  
Thames Ditton  
Surrey, United Kingdom

INTERNATIONAL ASSOCIATION OF  
FISH MEAL MANUFACTURERS  
(IAFMM)

Dr S.M. Barlow  
Hoval House  
Orchard Parade  
Mutton Lane  
Potters Bar  
Herts, United Kingdom

INTERNATIONAL ASSOCIATION OF  
SEED CRUSHERS (IASC)

Dr. K.A. Williams  
Ormond House  
7-8 Hardwich Street  
Roseberry Avenue  
London EC1R 4RB, United Kingdom

INTERNATIONAL FEDERATION OF  
MARGARINE ASSOCIATIONS (IFMA)

K.H. Kühn  
Dammtorwall 15  
D-2000 Hamburg 36  
Germany Fed. Rep. of.

Dr C. Ranzani  
Via Nino Bonnet 10  
I-20154 Milano  
Italy

Dr H.A. Gutwald  
Schenkenstrasse 8-10  
A-1011 Wien 1 Austria

INTERNATIONAL OLIVE OIL COUNCIL  
(IOOC)

Mrs B. Pajuelo  
Juan Bravo 10  
Madrid 2, Spain

INTERNATIONAL STANDARDS  
ORGANIZATION (ISO)

D.M. Radcliffe-Genge  
British Standards Institution  
2 Park Street  
London S1A 2BS, United Kingdom

M. Pike  
Harrisons and Crosfield Ltd  
Research Laboratories  
Stanhope Road  
Camberley, Surrey GU15 3BW  
United Kingdom

INTERNATIONAL UNION FOR PURE  
AND APPLIED CHEMISTRY (IUPAC)

Dr K.A. Williams  
Ormond House  
7-8 Hardwick Street  
Roseberry Avenue  
London EC1R 4RB, United Kingdom

MARINALG

Mr J. Russell  
Alginate Industries Ltd  
22 Henrietta Street  
London WC2E 8NB, United Kingdom

NORDIC COMMITTEE ON FOOD  
ANALYSIS (NMKL)

L. Reio  
The National Food Administration  
PO Box 622  
S-751 26 Uppsala, Sweden,

OBSERVER COUNTRY  
PAYS OBSERVATEUR  
PAIS OBSERVADOR

SOUTH AFRICA  
AFRIQUE DU SUD  
SUDAFRICA

C.P. Greyling  
Dept. of Agriculture and Fisheries;  
Private Bag X258  
Pretoria 0001  
Rep. South Africa

JOINT SECRETARIES (UNITED  
KINGDOM SECRETARIAT)  
CO-SECRETAIRES  
COSECRETARIOS

D.W. Hill  
Dr R. Burt  
Ministry of Agriculture Fisheries and  
Food  
Great Westminster House  
Horseferry Road,  
London SW1P 2AE  
United Kingdom

FOOD AND AGRICULTURE  
ORGANIZATION (FAO)

Mrs. B.M. Dix  
Food Standards Officer  
Joint FAO/WHO Food Standards  
Programme  
FAO, 00100 Rome, Italy

Dr. N. Rao Maturu  
Food Standards Officer  
Joint FAO/WHO Food Standards  
Programme  
FAO, 00100 Rome, Italy

WORLD HEALTH ORGANIZATION  
(WHO)  
ORGANISATION MONDIALE DE LA  
SANTE (OMS)  
ORGANIZACION MUNDIAL DE LA  
SALUD (OMS)

Dr. R. Monacelli  
Director of Research  
Istituto Superiore Sanita  
Viale R. Elena 299  
00161 Rome, Italy

PROPOSED DRAFT AMENDMENTS TO CODEX STANDARDS FOR INDIVIDUAL FATS AND OILS (at Step 5 of the Codex Procedure)

Amendment 1. The following to be included in Section 3 of all Codex Standards for individual fats and oils.

"Raw Materials

Oils used as a raw material for the manufacture shall comply with the GLC fatty acid ranges as specified in Section 3."

Amendment 2. The following footnote to be added to Section 3 'Identity Characteristics' of all Codex Standards for individual fats and oils.

"Supplementary non-mandatory criteria may be employed if it is considered necessary to ensure that a sample is in compliance with the description given to the product."

Amendment 3. The GLC ranges of fatty acid composition (%) as contained in ALINORM 79/17, Appendix XI, to be added to Codex Standards in Section 3 "Identity Characteristics".

Secretariat Notes.

1. The Committee agreed to recommend to the Codex Alimentarius Commission that Steps 6 and 7 of the Procedure should be omitted for Amendment 3 (see ALINORM 83/17 para 21). Amendment 3 would apply to the Codex Standards for Edible Soya Bean Oil, Arachis Oil, Cottonseed Oil, Sunflower Oil, Rapeseed Oil, Maize Oil, Sesameseed Oil, Safflower Seed Oil, Lard, Rendered Pork Fat, Premier Jus, Edible Tallow and Mustard Seed Oil.
2. The Committee on Fats and Oils is considering amendments to the Codex Standard for Edible Rapeseed Oil which include the GLC ranges of fatty acid composition. (See ALINORM 83/17 para 55-57 and Appendix VI).

APPENDIX III

DRAFT STANDARD FOR FAT SPREADS/SPREADABLE TABLE FATS  
(at Step 8 of the Codex Procedure)

1. SCOPE

This standard applies to any prepackaged product for direct consumption which complies with the provisions of this standard, but excludes "minarine" as defined in the Codex Standard for Minarine (CODEX STAN 135-1981).

2. DESCRIPTION

2.1 Product Definition

"Fat Spread/Spreadable Table Fat" is a food in the form of a spreadable emulsion, which is mainly of the type water in oil, produced principally from water and edible fats and oils which are not solely derived from milk, and in which the fat content is not less than 20% m/m and not more than 70% m/m .

2.2 Other Definitions

2.2.1 Edible fats and oils means foodstuffs composed of glycerides of fatty acids. They are of vegetable, animal or marine origin. They may contain small amounts of other lipids such as phosphatides, unsaponifiable constituents and free fatty acids naturally present in fat or oil. Fats of animal origin must be obtained from animals in good health, and, if originating from slaughtered animals, such animals should have been in good health at the time of slaughter and the fats fit for human consumption as determined by a competent authority recognised in national legislation (see Section 6).

2.2.2 Prepackaged means packaged or made up in advance, ready for retail sale in a container.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.2 Raw Materials

3.1.1 Water and/or milk and/or milk products.

3.1.2 Edible fats and/or oils, or mixtures of these, whether or not they have been subjected to a process of modification.

3.2 Fat content not less than 20% m/m and not more than 70% m/m and the total fat and water content should be not less than 85%.

3.3 Optional Ingredients

The following substances may be added:

- 3.3.1 Vitamins; Vitamin A and its esters  
Vitamin D  
Vitamin E and its esters  
Other Vitamins

Maximum and minimum levels for Vitamins A, D and E and other Vitamins should be laid down by national legislation in accordance with the needs of each individual country including, where appropriate, the prohibition of the use of particular vitamins.

|       |   |  |
|-------|---|--|
| 3.3.2 | Sodium chloride.  |  |
| 3.3.3 | Suitable edible proteins.   |  |
| 3.3.4 | Gelatine.   |  |
| 3.3.5 | Natural starches  |  |
| 4.    | <u>FOOD ADDITIVES</u>   |  |
| 4.1   | <u>Colours</u>  | Maximum level  |
| 4.1.1 | Beta-carotene   | 25 mg/kg   |
| 4.1.2 | Annatto extracts*   | 20 mg/kg<br>(calculated as total<br>bixin or norbixin) |
| 4.1.3 | Turmeric or curcumin*   | 5 mg/kg (calculated<br>as total curcumin)              |
| 4.2   | <u>Flavours*</u>  |  |
| 4.2   | Natural flavours and flavouring substances and nature-identical flavouring substances as defined for the purpose of the Codex Alimentarius (see Codex Guide to the Safe Use of Food Additives, (CAC/FAL 5-1979)). | Limited by GMP   |
|       | Artificial flavouring substances as defined for the purpose of the Codex Alimentarius and included in List A (see Codex Guide to the Safe Use of Food Additives, (CAC/FAL 5-1979)).                               |  |
| 4.3   | <u>Emulsifiers</u>  |  |
| 4.3-1 | Lecithins   | Limited by GMP   |
| 4.3.2 | Mono- and diglycerides of fatty acids   | Limited by GMP   |
| 4.3.3 | Polyglycerol esters of interesterified ricinoleic acid  | 5 g/kg <sup>1/</sup>                                   |
| 4.3.4 | Polyglycerol esters of fatty acids  |  |
| 4.3.5 | Esters of fatty acids with polyalcohols other than glycerol:  |  |
|       | Sorbitan monopalmitate  |  |
|       | Sorbitan monostearate   |  |
|       | Sorbitan tristearate  |  |
|       | Polyoxyethylene (20) sorbitan monolaurate   |  |
|       | Polyoxyethylene (20) sorbitan monopalmitate   |  |
|       | Polyoxyethylene (20) sorbitan monostearate  |  |
|       | Polyoxyethylene (20) sorbitan tristearate   |  |
|       | Polyoxyethylene (20) sorbitan monooleate  |  |
| 4.4   | <u>Thickening Agents</u>  |  |
| 4.4.1 | Pectin (non-amidated)   | 10 g/kg individually<br>or in combination              |
| 4.4.2 | Pectin (amidated)   |  |
| 4.4.3 | Agar  |  |
| 4.4.4 | Carrageenan   |  |
| 4.4.5 | Guar gum  |  |
| 4.4.6 | Carob bean gum  |  |

|        |  |   |
|--------|--|---|
| 4.4.7  | Cellulose, methyl  |   |
| 4.4.8  | Cellulose, sodium carboxymethyl  |   |
| 4.4.9  | Alginate, ammonium   |   |
| 4.4.10 | Alginate, calcium  |   |
| 4.4.11 | Alginate, potassium  |   |
| 4.4.12 | Alginate, sodium   |   |
| 4.4.13 | Alginate, propylene glycol   |   |
| 4.4.14 | Xanthan gum  | 5 g/kg  |
| 4.5    | <u>Preservatives</u>   |   |
| 4.5.1  | Sorbic acid and its sodium, potassium and calcium salts  | 2000 mg/kg  |
| 4.5.2  | Benzoic acid and its sodium and potassium salts  | 1000 mg/kg  |
| 4.5.3  | If used in combination, the combined use shall not exceed 2000 mg/kg of which the benzoic acid portion shall not exceed 1000 mg/kg |   |
| 4.6    | <u>Antioxidants</u>  |   |
| 4.6.1  | Propyl, octyl, and dodecyl gallates*   | 100 mg/kg of the fat content individually or in combination |
| 4.6.2  | Butylated hydroxytoluene (BHT)*  |   |
| 4.6.3  | Butylated hydroxyanisole (BHA)*  |   |
| 4.6.4  | Tertiary butyl hydroquinone (TBHQ)*  |   |
| 4.6.5  | Ascorbyl palmitate/stearate  | 500 mg/kg of the fat content                                |
| 4.6.6  | L-ascorbic acid  | 300 mg/kg of the fat content                                |
| 4.6.7  | Natural and synthetic tocopherols  | Limited by GMP  |
| 4.7    | <u>Antioxidant Synergist</u>   |   |
|        | Calcium disodium salt of EDTA**  | 100 mg/kg   |
| 4.8    | <u>pH Correcting Agents</u>  |   |
| 4.8.1  | Lactic acid  | and their calcium, potassium and sodium salts               |
| 4.8.2  | Citric acid  |   |
| 4.8.3  | Sodium hydrogen carbonate  | Limited by GMP  |
| 4.8.4  | Sodium carbonate   |   |
| 4.8.5  | Sodium hydroxide   |   |
| 4.8.6  | Sodium monophosphates (orthophosphates)  |   |

\* Temporarily endorsed. (Alinorm 83/12, Appendix VII)

<sup>1</sup> To be endorsed.

\* Temporarily endorsed

\*\* Endorsement postponed pending more information on its technological function (ALINORM 83/12, para. 111).

5. CONTAMINANTS

|     |              |           |
|-----|--------------|-----------|
| 5.1 | Iron (Fe)    | 1.5 mg/kg |
| 5.2 | Copper (Cu)  | 0.1 mg/kg |
| 5.3 | Lead (Pb)    | 0.1 mg/kg |
| 5.4 | Arsenic (As) | 0.1 mg/kg |

6. HYGIENE

It is recommended that the product covered by the provisions of this standard be prepared in accordance with the appropriate sections of the General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 1-1969 Rev. 1) and the Recommended International Code of Hygienic Practice for Processed Meat Products (Ref. No. CAC/RCP 13-1976).

7. PACKAGING

Fat Spreads/Spreadable Table Fats when sold by retail, shall be pre-packaged and may be sold in a pack of any shape.

8. LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for Labelling of Prepackaged Foods (CODEX STAN 1 - 1981) the following specific provisions apply.

8.1 Name of the Food

8.1.1 The product shall be designated "Fat Spreads/Spreadable Table Fats" and in addition thereto any other designation may be used provided that it does not mislead or deceive the consumer in the country where the product is sold. All products so designated shall conform to this standard.

8.1.2 The name of the product shall be closely followed by a declaration of the fat content.

8.2 List of Ingredients

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

8.3 Net Contents

The net contents shall be declared by weight either in the metric ("Système International" units) or avoirdupois or both systems 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

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

8.6 Exemptions

The information specified under 8.2, 8.3, 8.4 and 8.5 need only be given on outer cartons containing Fat Spreads/Spreadable Table Fats packed in units less than 50 g.

#### 8.7 Labelling Prohibitions

8.7.1 No reference shall be made to the presence of milk and/or dairy products except in a complete list of ingredients.

8.7.2 No reference shall be made other than in a complete list of ingredients to the presence of any vitamin in Fat Spreads/Spreadable Table Fats unless the name and quantity of the vitamin is stated on the label.

#### 8.8 Lot Identification

Each container shall be embossed or otherwise permanently marked in code or in clear to identify the producing factory and the lot.

#### 8.9 Date Marking and Storage Instructions

8.9.1 The "date of minimum durability" (preceded by the words "best before") shall be declared by the day, month and year in uncoded numerical sequence except that for products with a shelf life of more than three months, the month and year will suffice. The month may be indicated by letters in those countries where such use will not confuse the consumer. In the case of products requiring a declaration of month and year only, and the shelf life of the product is valid to the end of a given year, the expression "end (stated year)" may be used as an alternative.

8.9.2 In addition to the date, any special conditions for the storage of the food should be indicated if the validity of the date depends thereon.

8.9.3 Where practicable, storage instructions should be in close proximity to the date marking".

#### 8.10 Instructions for Use

Any restrictions on the use of the product shall be clearly indicated.

### 9. METHODS OF ANALYSIS (Subject to endorsement by the Codex Committee on Methods of Analysis)

9.1 Estimation of Milk Fat Content - CAC/RM 15-1969

9.2 Determination of Fat Content - CAC/RM 16-1969

9.3 Determination of Loss of Mass on Drying - CAC/RM 17-1969

9.4 Determination of Vitamin A Content - According to AOAC, 1965, 39.001-39.007 Chemical Methods, Vitamin A in Margarine.

Results are expressed as microgrammes retinol (Vitamin A alcohol) per kg.

9.5 Determination of Vitamin D Content - According to AOAC, 1965, 39.116-39.129

#### Vitamin D

Results are expressed as IU Vitamin D per kg.

9.6 Determination of Vitamin E - CAC/RM 18-1969.

9.7 Determination of Sodium Chloride Content - Alinorm 79/23, Appendix IV

9.8 Determination of Iron\* - CAC/RM 14-1969

9.9 Determination of Copper\* - According to AOAC, 1965, 24.023-24.028, IUPAC Carbamate Method.

Results are expressed as mg copper/kg.

9.10 Determination of Lead\* - According to AOAC, 1965, 24.053 (and 24.008, 24.009, 24.043j, 24.046, 24.047 and 24.048), dithizone determination procedure.

9.11 Determination of Arsenic - According to AOAC, 1965, 24.011-24.014, 24.016-24.017, 24.006-24.008, silver diethyldithiocarbamate method.

Results are expressed as mg arsenic/kg.

9.12 Determination of Additives –

(To be developed)

10. METHODS OF SAMPLING

(To be developed).

\* Might be replaced by Atomic Absorption Spectrophotometry in the future.

PROPOSED DRAFT STANDARD FDR [VANASPATI/VEGETABLE FAT MIXTURE]

(At Step 5 of the Codex procedure)

1. SCOPE

This standard applies to any product described as [Vanaspati/vegetable fat mixture] (synonym: Samna substitute)

2. DESCRIPTION

2.1 Product Definitions

2.1.1 [Vanaspati/vegetable fat mixture] is a semi-solid product which consists of an edible vegetable fat or a blend of edible vegetable oils and fats.

2.2 Other Definitions

2.2.1 Edible vegetable fats and oils means foodstuffs composed mainly of glycerides of fatty acids. They may contain small amounts of other lipids such as phosphatides and of unsaponifiable constituents and of free fatty acids naturally present in fat or oil. They are obtained only from vegetable sources and include fats and oils that have been subjected to processes of modification including hydrogenation.

2.2.2 Pre-packaged means packed or made up in advance, ready for retail sale in a container.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Materials

3.1.1 Edible fats and/or oils of vegetable origin or mixtures of these whether or not they have been subjected to a process of modification. The laws and customs of the country in which the product is sold may require the presence or absence of specific vegetable oils or fats.

3.2 Fat Content

3.2.1 Not less than 99.5 per cent m/m.

3.3 Quality Characteristics

3.3.1 Colour: Creamy white to yellow.

3.3.2 Odour and Taste: Characteristic and free from foreign odour and tastes.

3.3.3 Texture: Ranges from granular solid fat crystals dispersed in an oil phase to a smooth finely crystalline texture.

3.3.4 Acid Value: Not more than [0.6 mg KOH/g].

3.3.5 Peroxide Value: Not more than 10 milliequivalents of peroxide oxygen/kg.

3.3.6 [Slip Point: Between 36-41°C]

3.4 Additions

The following substances may be added to [Vanaspati/vegetable fat mixture].

- 3.4.1 Vitamins: Vitamin A and its esters  
 Vitamin D  
 Vitamin E and its esters  
 Other Vitamins

Maximum and minimum levels for Vitamins A, D and E and other Vitamins should be laid down by national legislation in accordance with the needs of each individual country including, where appropriate, the prohibition of the use of particular Vitamins.

4. FOOD ADDITIVES (To be endorsed by CCFA)

4.1 Colours

The following colours are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

|   | <u>Maximum Level</u> |
|---|----------------------|
| 4.1.1 Beta-carotene   | Limited by GMP       |
| 4.1.2 Annatto extracts  | Limited "            |
| 4.1.3 Curcumin or Tumeric                                     | Limited "            |
| 4.1.4 Canthaxanthine  | Limited "            |
| 4.1.5 Beta-apo-8'-carotenal                                   | Limited "            |
| 4.1.6 Methyl and ethyl esters of beta-apo-8,'-carotenoic acid | Not limited          |

4.2 Flavours

Natural flavours and their identical synthetic equivalents, except those which are known to represent a toxic hazard, and other synthetic flavours approved by the Codex Alimentarius Commission are permitted for the purpose of restoring natural flavour lost in processing or for the purpose of standardizing flavour, as long as the added flavour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value.

4.3 Antioxidants

|  | <u>Maximum Level</u>                                     |
|--|--|
| 4.3.1 Propyl, octyl, and dodecyl gallates                      | 100 mg/kg<br>individually or<br>in combination           |
| 4.3.2 Butylated hydroxytoluene (BHT)                           | 200 mg/kg<br>individually or.<br>in combination          |
| 4.3.3 Butylated hydroxyanisole (BHA)                           |  |
| 4.3.4 Tertiary butyl hydroquinone (TBHQ)                       |  |
| 4.3.5 Any combination of gallates with BHA or BHT, and/or TBHQ | 200 mg/kg, but<br>gallates not to<br>exceed 100<br>mg/kg |
| 4.3.6 Natural and synthetic tocopherols                        | Not limited  |
| 4.3.7 Ascorbyl palmitate                                       | 500 mg/kg  |

|       |   |                                   |
|-------|---|-----------------------------------|
| 4.3.8 | Ascorbyl stearate   | individually or<br>in combination |
| 4.3.9 | Dilauryl thiodipropionate   | 200 mg/kg                         |
| 4.4   | <u>Antioxidant synergists</u>   |                                   |
| 4.4.1 | Citric acid and its sodium salt   | Not limited                       |
| 4.4.2 | Isopropyl citrate mixture   | 100 mg/kg                         |
| 4.4.3 | Phosphoric acid   | individually or<br>in combination |
| 4.4.4 | Monoglyceride citrate   |                                   |
| 4.5   | Anti-foaming agent  |                                   |
|       | Dimethyl polysiloxane (dimethyl silicone) singly or in<br>combination with silicone dioxide | 10 mg/kg                          |
| 5,    | <u>CONTAMINANTS</u>   | Maximum level                     |
| 5.1   | Matter volatile at 105°C  | 0.2% m/m                          |
| 5.2   | Insoluble impurities  | 0.05% m/m                         |
| 5.3   | Soap content  | 0.005% m/m                        |
| 5.4   | Iron (Fe)   | 1.5 mg/kg                         |
| 5.5   | Copper (Cu)   | 0.1 mg/kg                         |
| 5.6   | Lead (Pb)   | 0.1 mg/kg                         |
| 5.7   | Arsenic (As)  | 0.1 mg/kg                         |

## 6. HYGIENE

It is recommended that the product covered by the provisions of this standard be prepared in accordance with the appropriate sections of the General Principles of Food Hygiene recommended by the Codex Alimentarius Commission.(Ref. No. CAC/RCP 1-1969 Rev. 1).

## 7. PACKAGING

(Vanaspati/vegetable fat mixture] when sold by retail shall be pre-packaged and may be sold in a pack of any shape.

## 8. LABELLING

In addition to Sections 1, 2, 4 and 6 of the General Standard for Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1981), the following specific provisions apply:

### 8.1 Name of the Food

The products shall be designated [Vanaspati/vegetable fat mixture] (synonym: samna substitute) except that alternative designations may be used in accordance with the laws and customs of the country in which the product is sold and in a manner so as to not mislead the consumer. All products so designated shall conform to this standard.

### 8.2 List of Ingredients

8.2.1 A complete list of ingredients shall be declared in descending order of proportion by weight.

8.2.2 A specific name shall be used for ingredients except that class titles may be used in accordance with sub-section 3.2(c)(i) and (ii) of the Codex General Standard for the Labelling of Pre-packaged Foods.

### 8.3 Net Contents

The net contents shall be declared by weight either in the metric ("Systems International" units) or avoirdupois or both systems 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 purposes of labelling.

### 8.6 Lot Identification

Each container shall be embossed or otherwise permanently marked in code or in clear to identify the producing factory and the lot.

### 8.7 Date Marking and Storage Instructions

8.7.1 The "date of minimum durability" (preceded by the words "best before") shall be declared by the day, month and year in uncoded numerical sequence except that for products with a shelf life of more than three months, the month and year will suffice. The month may be indicated by letters in those countries where such use will not confuse the consumer. In the case of products requiring a declaration of month and year only, and the shelf life of the product is valid to the end of a given year, the expression "end (stated year)" may be used as an alternative.

8.7.2 In addition to the date, any special conditions for the storage of the food should be indicated if the validity of the date depends thereon.

8.7.3 Where practicable, storage instructions should be in close proximity to the date marking.

### 8.8 Bulk Packs

(To be elaborated).

### 8.9 Labelling Prohibitions

8.9.1 No reference shall be made, other than in a complete list of ingredients, to the presence of any vitamin in [vegetable ghee] unless the name and the quantity of the vitamin is stated on the label.

## 9. METHODS OF ANALYSIS AND SAMPLING

[To be developed when the format of the draft has been established] .

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APPENDIX V

PROPOSED DRAFT STANDARD FOR [MIXED VANASPATI/SUBSTITUTE GHEE]

(At Step 5 of the Codex Procedure)

1. SCOPE

This standard applies to any products described as [Mixed Vanaspati/substitute ghee]

2. DESCRIPTION

2.1 Product Definitions

2.1.1 [Mixed Vanaspati/substitute ghee] is a semi-solid product which consists of edible animal and/or marine oils and fats with or without the addition of edible vegetable oils and fats.

2.2 Other Definitions

2.2.1 Edible fats and oils means foodstuffs composed of glycerides of fatty acids. They are of vegetable, animal or marine origin. They may contain small amounts of other lipids such as phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in fat or oil. Fats of animal origin must be obtained from animals in good health, and if originating from slaughtered animals such animals should have been in good health at the time of slaughter and the fats fit for human consumption as determined by a competent authority recognised in national legislation (see Section 6).

2.2.2 Pre-packaged means packed or made up in advance, ready for retail sale in a container.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Materials

3.1.1 Edible Fats and/or Oils

Edible fats and/or oils as defined in Section 2.2.1, whether or not they have been subjected to a process of modification. Those of animal origin may include Ghee prepared from milk of bovine origin and/or Butteroil, Anhydrous Butteroil, Anhydrous Milk Fat complying with Standard No. A2 in the Code of Principles Concerning Milk and Milk Products (CAC/MI-1973). The laws and customs of the country in which the product is sold may require the presence or absence of specific oils or fats.

3.2 Fat Content

3.2.1 Total Fat Content: Not less than 99.5 per cent m/m.

3.2.2 Fat derived from milk: If present, shall be not less than 10 per cent m/m.

3.3 Quality Characteristics

3.3.1 Colour: Creamy white to yellow.

3.3.2 Odour and Taste: Characteristic and free from foreign odour and tastes.

3.3.3 Texture: Ranges from granular solid fat crystals dispersed in an oil phase to a smooth finely crystalline texture.

- 3.3.4 Acid Value: Not more than [0.8 mg KOH/g.]
- 3.3.5 Peroxide Value: Not more than 10 milliequivalents of peroxide oxygen/kg.
- 3.3.6 Slip Point: [Between 36-41°C].

3.4 Additions

The following substances may be added to [Mixed Animal and Vegetable Ghee].

- 3.4.1 Vitamins: Vitamin A and its esters  
Vitamin D  
Vitamin E and its esters  
Other Vitamins

Maximum and minimum levels for Vitamin A, D and E and other Vitamins should be laid down by national legislation in accordance with the needs of each individual country including, where appropriate, the prohibition of the use of particular Vitamins.

4. FOOD ADDITIVES (To be endorsed by CCFA.)

4.1 Colours

The following colours are permitted for the purpose of restoring natural colour lost in processing or for the purpose of standardizing colour, as long as the added colour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value:

|       |  | <u>Maximum Level</u> |
|-------|--|----------------------|
| 4.1.1 | Beta-carotene  | Limited by GMP       |
| 4.1.2 | Annatto extracts                                       | Limited “            |
| 4.1.3 | Curcumin or Turmeric                                   | Limited “            |
| 4.1.4 | Canthaxanthine   | Limited “            |
| 4.1.5 | Beta-apo-8'-carotenal                                  | Limited “            |
| 4.1.6 | Methyl and ethyl esters of beta-apo-8'-carotenoic acid | Limited “            |

4.2 Flavours

Natural flavours and their identical synthetic equivalents, except those which are known to represent a toxic hazard, and other synthetic flavours approved by the Codex Alimentarius Commission are permitted for the purpose of restoring natural flavour lost in processing or for the purpose of standardizing flavour, as long as the added flavour does not deceive or mislead the consumer by concealing damage or inferiority or by making the product appear to be of greater than actual value.

4.3 Antioxidants

|       |                                     | <u>Maximum Level</u>                           |
|-------|-------------------------------------|--|
| 4.3.1 | Propyl, octyl, and dodecyl gallates | 100 mg/kg<br>individually or in<br>combination |
| 4.3.2 | Butylated hydroxytoluene (BHT)      | 200 mg/kg<br>individually or in                |
| 4.3.3 | Butylated hydroxyanisole (BHA)      |  |

|        |   |   |
|--------|---|---|
| 4.3.4  | Tertiary butyl hydroquinone (TBHQ)  | combination                                     |
| 4.3.5  | Any combination of gallates with BHA or BHT, and/or TBHQ                                | 200 mg/kg, but gallates not to exceed 100 mg/kg |
| 4.3.6  | Natural and synthetic tocopherols   | Not limited                                     |
| 4.3.7  | Ascorbyl palmitate  | 500 mg/kg individually or in combination        |
| 4.3.8  | Ascorbyl stearate   |   |
| 4.3.10 | Dilauryl thiodipropionate   | 200 mg/kg                                       |
| 4.4    | <u>Antioxidant synergists</u>   |   |
| 4.4.1  | Citric acid and its sodium salt   | Not limited                                     |
| 4.4.2  | Isopropyl citrate mixture   | 100 mg/kg individually or in combination        |
| 4.4.3  | Phosphoric acid   |   |
| 4.4.4  | Monoglyceride citrate   |   |
| 4.5    | <u>Anti-foaming agent</u>   |   |
|        | Dimethyl polysiloxane (dimethyl silicone) singly or in combination with silicon dioxide | 10 mg/kg  |

## 5. CONTAMINANTS

|     |                          |            |
|-----|--------------------------|------------|
| 5.1 | Matter volatile at 105°C | 0.2% m/m   |
| 5.2 | Insoluble impurities     | 0.05% m/m  |
| 5.3 | Soap content             | 0.005% m/m |
| 5.4 | Iron (Fe)                | 1.5 mg/kg  |
| 5.5 | Copper (Cu)              | 0.1 mg/kg  |
| 5.6 | Lead (Pb)                | 0.1 mg/kg  |
| 5.7 | Arsenic (As)             | 0.1 mg/kg  |

## 6. HYGIENE

It is recommended that the product covered by the provisions of this standard be prepared in accordance with the appropriate sections of the General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 1-1969 Rev 1.) and the Recommended International Code of Hygienic Practice for Processed Meat Products (CAC/RCP 19-1976).

## 7. PACKAGING

[Mixed Vanaspati/Substitute Ghee] when sold by retail shall be prepackaged and may be sold in a pack of any shape.

## 8. LABELLINS

In addition to Sections 1, 2, 4 and 6 of the General Standard for Labelling of Prepacked Foods (Ref. No. CODEX STAN 1-1981), the following specific provisions apply.

### 8.1 Name of the Food

The products shall be designated [Mixed Vanaspati/substitute ghee] except that alternative designations may be used in accordance with the laws and customs of the country in which the product is sold and in a manner so as to not mislead the consumer. All products so designated shall conform to this standard.

## 8.2 List of Ingredients

8.2.1 A complete list of ingredients shall be declared in descending order of proportion by weight together with a declaration of the minimum percentage by weight of animal fat in the product. The percentage of fat derived from milk may also be declared.

8.2.2 A specific name shall be used for ingredients except that class titles may be used in accordance with sub-section 3.2(c) (i) and (ii) of the Codex General Standard for the Labelling of Prepackaged Foods.

## 8.3 Net Contents

The net contents shall be declared by weight either in the metric (Système International units) or avoirdupois or both systems 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 purposes of labelling.

## 8.6 Lot Identification

Each container shall be embossed or otherwise permanently marked in code or in clear to identify the producing factory and the lot.

## 8.7 Date Marking and Storage Instructions

8.7.1 The "data of minimum durability" (preceded by the words "best before") shall be declared by the day, month and year in uncoded numerical sequence except that for products with a shelf life of more than three months, the month and year will suffice. The month may be indicated by letters in those countries where such use will not confuse the consumer. In the case of products requiring a declaration of month and year only, and the shelf life of the product is valid to the end of a given year, the expression "end (stated year)" may be used as an alternative.

8.7.2 In addition to the date, any special conditions for the storage of the food should be indicated if the validity of the date depends thereon.

8.7.3 Where practicable, storage instructions should be in close proximity to the date marking.

## 8.8 Bulk Packs

(To be elaborated).

## 8.9 Labelling Prohibitions

8.9.1 No reference shall be made to the presence of milk fat or batter in [Mixed Vanaspati/substitute ghee] except in a complete list of ingredients.

8.9.2 No reference shall be made, other than in a complete list of ingredients, to the presence of any vitamin in [Mixed Vanaspati/substitute ghee] unless the name and the quantity of the vitamin is stated *on* the label

9. METHODS OF ANALYSIS AND SAMPLING

[To be developed when the format of the draft has been established].

APPENDIX VIPROPOSED AMENDMENTS TO THE RECOMMENDED INTERNATIONAL  
STANDARD FOR EDIBLE RAPESEED OIL (CODEX STAN 24-1981)

(At Step 5 of the Procedure)

1. SCOPE

\*This standard applies to Edible Rapeseed Oil but does not apply to edible low erucic acid rapeseed oil as defined in CODEX STAN 123-1981 nor to rapeseed oil which must be subjected to further processing in order to render it suitable for human consumption.

\* Additional text underlined.

2. DESCRIPTION

As in CODEX STAN 24-1981.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS3.1 Identity Characteristics

|       |  |   |       |
|-------|--|---|-------|
| 3.1.1 | Relative Density (20°C/water at 20°C)  | 0.910 -   | 0.920 |
| 3.1.2 | Refractive Index (n <sub>D</sub> 40°C) | 1.465 -   | 1.469 |
| 3.1.3 | Saponification Value (mg KOH/g oil)    | 168 -   | 187   |
| 3.1.4 | Iodine Value (Wijs)                    | 94 -  | 120   |
| 3.1.5 | Crismer Value                          | 71 -  | 85    |
| 3.1.6 | Unsaponifiable Matter                  | not more than 20 g/kg                           |       |
| 3.1.7 | Brassicasterol                         | not less than 5% of total sterols               |       |
| 3.1.8 | Erucic Acid                            | more than 5% (m/m) of the component fatty acids |       |

3.1.9 GLC Ranges of Fatty Acid Composition (%)

|   |      |         |
|---|------|---------|
| C | < 14 | <0.5    |
| C | 14:0 | <1.0    |
| C | 16:0 | 1.5-6.4 |
| C | 16:1 | <3.u .  |
| C | 18:0 | 0.5-3.1 |
| C | 18:1 | 8-45    |
| C | 18:2 | 11-29   |
| C | 18:3 | 5-16    |
| C | 20:0 | <3.0    |
| C | 20:1 | 3-15    |
| C | 20:2 | <1.0    |
| C | 22:0 | <2.0    |
| C | 22:1 | 5-60    |
| C | 22:2 | <2.0    |
| C | 24:0 | <2.0    |
| C | 24:1 | <3.0    |

3.2 Quality Characteristics

As in CODEX STAN 24-1981.

4. FOOD ADDITIVES

As in Recommended International Standard for Edible Low Erucic Acid Rapeseed Oil (CODEX STAN 123-1981).

5. CONTAMINANTS As in CODEX STAN 24.-1981.

6. HYGIENE As in CODEX STAN 24-1981.

7. LABELLING

As in CODEX STAN 24-1981, together with Sections on "Lot Identification", "Date. Marking" and "Bulk Packs" as in the Recommended International Standard for Edible Low Erucic Acid Rapeseed Oil (CODEX STAN 123-1981).

8. METHODS OF ANALYSIS AND SAMPLING

As in the Recommended International Standard for Edible Low Erucic Acid Rapeseed Oil , (CODEX STAN 123-1981).

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APPENDIX VII

PROPOSED AMENDMENT TO RECOMMENDED INTERNATIONAL STANDARD FOR  
OLIVE OIL, VIRGIN AND REFINED AND FOR REFINED OLIVE-RESIDUE OIL  
(CODEX STAN 33-1981)

(at Step 5 of the Codex Procedure)

3.1.2.12 Beta-sitosterol

|                           |  |
|---------------------------|--|
| Virgin Olive Oil          | 93% minimum of the sum of<br>betasitosterol, campesterol and<br>stigmasterol |
| Refined Olive Oil         |  |
| Refined Olive-Residue Oil |  |

3.1.2.13 Saturated Fatty Acids at Position 2.

Maximum Level

|   |          |
|---|----------|
| Virgin olive oil                        | 1.5% m/m |
| Refined olive oil                       | 1.8% m/m |
| Blends of virgin and refined olive oils | 1.8% m/m |
| Refined olive residue oil               | 2.2% m/m |

The saturated fatty acids at position 2 means the sum of the palmitic (16:0) and stearic (18:0) acids expressed as a percentage (m/m) of the total fatty acids at position 2.

8.20 Determination of beta-sitosterol

According to IUPAC (1979) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Derivatives, 6th Edition (1979), 2.403). Only SE30 packing material should be employed.

8.21 Determination of fatty acids at position 2:

According to IUPAC (1979) method (IUPAC Standard Methods for the Analysis of Oils, Fats and Derivatives, 6th Edition (1979)) 2.210

PROPOSED LIST OF PROCESSING AIDS FOR PRODUCTS COVERED BY CODEX  
STANDARDS EDIBLE FATS AND OILS

| <u>Notes</u>              |   |
|---------------------------|---|
| <u>Column Heading</u>     | <u>Comments</u>   |
| 1. Additional information | Contains additional information on the use and nature of the processing aid.  |
| 2. Residual Level         | The typical residual levels of the processing aid as notified by Government are given. See "Introduction" for further explanation.  |
| 3. Origin of Data         |   |
| 4. ADI                    |   |
| 5. Spec.                  | <p>The toxicological status as determined by JECFA is given. Where possible, the Acceptable Daily Intake in mg/kg body weight (ADI) as given in the "Guide to the Safe Use of Food Additives" 2nd Series, (CAC/FAL 5-1979) is listed. Other abbreviations used are:</p> <p>NS - ADI "not specified" by JECFA;</p> <p>NS (GMP) - ADI not specified, and to be used in accordance with GMP. The formation of toxic interaction products should be avoided and minimum residual levels should be achieved.</p> <p>NC - Not possible on available data</p> <p>NE - Not considered by JECFA but evaluation pending.</p> <p>T - Temporary.</p> <p>The reference to the specification or tentative specification developed by JECFA is given. The references are as follows:-</p> <ol style="list-style-type: none"> <li>1. Specifications for the identity and purity of some extraction solvents and certain other substances; WHO/Food Add/70.40 FAO Nutrition Meetings Report Series No. 48B.</li> <li>2. Specifications for identity and purity of Food Colours, Flavouring Agents and Other Food Additives. FAO Food and Nutrition Paper 12.</li> <li>3. Specifications resulting from the twenty-first Report of the Joint FAO/WHO Expert Committee on Food Additives; FAO Nutrition Meetings Rep. Series No. 57.</li> <li>4. Specifications for the identity and purity of Certain Food Additives: FAO Food and Nutrition Series 7B: WHO Food Additive Series No. 11.</li> <li>5. Specifications for the identity and parity - thickening agents, anticaking agents, antimicrobials, antioxidants, emulsifiers; FAO Food and Nutrition Paper N. 4.</li> <li>6. Specifications for the identity and purity of Food Additives, Vol. I Antimicrobial Preservatives and Antioxidants; FAO, Rome 1962.</li> </ol> |

7. Specifications for the identity and purity of Certain Food Additives; FAD Nutrition Meetings Report Series No. 55B; WED Food Additive Series No. 9.
8. Food Additive Specifications established by JECFA and issued by the Secretariat of the Codex Alimentarius Commission to Codex Contact Points in 1967.
9. Specifications for identity and purity - food colours, enzyme preparations and other food additives. FAO Food and Nutrition Paper No. 7.
10. Draft Standard for Food Grade Salt at Appendix III, ALINORM 83/12.
11. Toxicological Evaluation of Certain Food Additives; FAO Food and Nutrition Series No. 1A; WHO Food Additive Series No. 10.
12. Specifications for the identity and purity of some Food Colours Emulsifiers, Stabilizers, Anti-Caking Agents and Certain Other Food Additives; WHO/Food Add/70.37; FAO Nutrition Meetings Report Series No. 46B.
13. Specifications for identity and purity; FAO Food and Nutrition Paper No. 17.
14. Specifications for identity and purity; FAO Food and Nutrition Paper No. 19.
15. Evaluation of certain food additives; 25th Report of Joint FAO/WHO Expert Committee on Food Additives, WHO Technical Report Series No 669

A. PROCESSING SOLVENTS

|                 | Additional Information | Residual Level (mg/kg)    | Origin of Data                | ADI      | Spec. |
|-----------------|------------------------|---------------------------|-------------------------------|----------|-------|
| Propane         |                        | <1                        | USA                           | NE       | -     |
| Butane          |                        | <1                        | USA                           | NC       | -     |
| Hexane          |                        | <5.0 detectable<br><1.0   | Netherlands,<br>Norway UK USA | NS (GMP) | -     |
| Heptane         |                        | <1                        | USA                           | NS (GMP) | -     |
| Isopropanol     |                        | <5.0 Not<br>detectable <1 | Netherlands, UK,<br>USA       | NC       | 14(T) |
| Pentane         |                        | <1                        | USA                           | NE       | -     |
| Methanol        |                        | <1                        | USA                           | NS (GMP) | 14    |
| Ethanol         |                        | <1                        | USA                           | NS       | 14    |
| Acetone         |                        | <5.0 Not<br>detectable <1 | Netherlands, UK,<br>USA       | NS (GMP) | 1     |
| 2-Nitropropane  | See Ref 15             | <0.02                     | USA                           | NONE     | -     |
| Water           |                        | <500<br><100C             | Norway,<br>USA                | FOOD     | -     |
| Light petroleum |                        | Not detectable            | Poland                        | NS       | 14    |

|  |  |     |        |           |   |
|--|--|-----|--------|-----------|---|
| (syn. petroleum ether, extraction naphtha) |  |     |        |           |   |
| Dichloromethane                            |  | <10 | USA    | 0-0.5 (T) | 2 |
| Trichloroethylene                          |  |     | Italy  | NE        |   |
| Carbon dioxide                             |  | <1  | Sweden | NS        | 4 |

B. CLARIFYING AGENTS AND FILTRATION AIDS

|  | Additional Information            | Residual Level (mg/kg)        | Origin of Data | ADI | Spec. |
|--|-----------------------------------|-------------------------------|----------------|-----|-------|
| Inert filtering agents                                   |                                   | traces <5                     | Norway, USA    |     |       |
| Absorbent Clays (bleaching, natural or activated earths) |                                   | traces No visible residues <5 | Norway, UK USA | NE  |       |
| Absorbent carbons  | From vegetable sources only       | traces No visible residues <5 | Norway UK USA  | NS  | 3     |
| Ion exchange resins                                      |                                   | <1                            | USA            |     |       |
| Cellulose  | From wood and cotton sources only | <5                            | USA            | NS  | -     |
| Diatomaceous earths                                      |                                   | No visible residues           | UK             | NE  |       |

C. CRYSTAL MODIFIERS

|                        | Additional Information | Residual level (mg/kg) | Origin of Data | ADI  | Spec. |
|------------------------|------------------------|------------------------|----------------|------|-------|
| Sodium lauryl sulphate |                        | <1                     | USA            | NE   |       |
| Oxystearine            |                        | <125                   | USA            | 0-25 | 4     |
| Polyglycerol esters    |                        | <100                   | USA            | 0-25 | 5     |
| Lecithin               |                        | <250                   | USA            | NS   | 5     |

D. CATALYSTS

(i) Hydrogenation

|        | Additional Information | Residual Level (mg/kg)     | Origin of Data                        | ADI | Spec. |
|--------|------------------------|----------------------------|---------------------------------------|-----|-------|
| Nickel |                        | <1<br><0.2<br><0.4<br><0.2 | Netherlands<br>Norway<br>Poland<br>UK | NE  | -     |

|  |  |                   |                     |    |   |
|--|--|-------------------|---------------------|----|---|
|  |  | <0.5 0.2          | USA Argentina       |    |   |
| Copper                                 |  | <0.1 0.2          | USA Argentina       | NE | - |
| Chromium                               |  | <3.0<br><0.1 0.05 | UK<br>USA Argentina | NE |   |
| Manganese                              |  | <0.1 0.2          | USA Argentina       | NE |   |
| Molybdenum                             |  | <0.1 0.2          | USA Argentina       | NE | - |
| Platinum                               |  | <0.1 0.2          | USA Argentina       | NE | - |
| Palladium                              |  | <0.1 0.2          | USA Argentina-      | NE | - |
| Silver                                 |  | <0.1              | USA Argentina       | NE | - |
| Alloys of two or more of listed metals |  |                   |                     | NE | - |
| Various metal oxides                   |  | <0.1              | USA                 | NE |   |

ii) Inter or Trans-Esterfication

|                        | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI | Spec. |
|------------------------|------------------------|------------------------|----------------|-----|-------|
| Sodium metal           |                        | <50* .<1               | UK USA         | NE  |       |
| Sodium amide           |                        | <1                     | USA            | NE  | -     |
| Sodium methylate       |                        | <1                     | USA            | NE  | -     |
| Sodium ethylate        |                        | <1                     | USA            | NE  | -     |
| Potassium ethylate     |                        | <1                     | USA            | NE  |       |
| Potassium metal        |                        | <50* <1                | UK USA         | NE  | -     |
| Potassium methylate    |                        | <1                     | USA            | NE  | -     |
| Sodium-potassium alloy |                        |                        |                | NE  |       |

\* Expressed as sodium oleate.

(iii) Extraction

|         |  |   |  |  |  |
|---------|--|---|--|--|--|
| Enzymes |  | - |  |  |  |
|---------|--|---|--|--|--|

[Secretariat Note:

A list of enzymes which have been evaluated is given in CAC/FAL 5-1979.. A further list of enzymes is given in Appendix VI to ALINORM 79/12-A],

E. GASES

|                | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI | Spec |
|----------------|------------------------|------------------------|----------------|-----|------|
| Nitrogen       |                        | Not detectable<br><350 | Norway USA     | NE  | 13   |
| Carbon Dioxide |                        | <1                     | USA            | NS  | 4    |
| Hydrogen       |                        | <1.0 max Not           | Netherlands    |     |      |

|  |  |               |            |  |  |
|--|--|---------------|------------|--|--|
|  |  | detectable <1 | Norway USA |  |  |
|--|--|---------------|------------|--|--|

#### F. ACIDS

|                  | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI            | Spec. |
|------------------|------------------------|------------------------|----------------|----------------|-------|
| Citric           |                        | <10                    | Netherlands    | NS (GMP)       | 6     |
|                  |                        | <50                    | Norway         |                |       |
|                  |                        | Not detectable         | USA UK         |                |       |
| Tartaric         |                        | <1                     | USA            | 0-30 for L (+) | 5     |
| Phosphoric       |                        | Not detectable         | Norway, UK USA | 0-70 (as P)    | 5     |
| Hydrochloric     |                        | <1                     | USA            | NS             | 4     |
| Sulphuric        |                        | <1                     | USA            | NE             | -     |
| Oxalic           |                        | <1                     | USA, Italy     | -              | -     |
| Acetic           |                        | <1                     | USA            | NS             | 7     |
| Acetic anhydride |                        | -                      | -              | -              | -     |

#### G. BASES

|                     | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI | Spec. |
|---------------------|------------------------|------------------------|----------------|-----|-------|
| Sodium hydroxide    |                        | Not detectable         | Netherlands    | NS  | 7     |
|                     |                        | 50 max*                | UK             |     |       |
|                     |                        | 25 max                 | Norway         |     |       |
|                     |                        | <1                     | USA            |     |       |
| Potassium hydroxide |                        | <1                     | USA            | NS  | 7     |
| Ammonium hydroxide  |                        | <1                     | USA            | NS  | 8     |
| Calcium hydroxide   |                        | <1                     | USA            | NS  | 7     |
| Magnesium hydroxide |                        | <1                     | USA            | NS  | 7     |
| Sodium carbonate    |                        | 50 max* <1             | UK USA         | NS  | 8     |
| Sodium bicarbonate  |                        | <1                     | USA            | NS  | 8     |

\* Calculated as salt of oleic acid.

#### H. SALTS

|                   | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI | Spec. |
|-------------------|------------------------|------------------------|----------------|-----|-------|
| Calcium carbonate |                        | <1                     | USA            | NS  | 8     |

|                      |                  |    |     |                |                        |
|----------------------|------------------|----|-----|----------------|------------------------|
| Magnesium carbonate  |                  | <1 | USA | NS             | 8                      |
| Potassium carbonate  |                  | <1 | USA | NS             | 8                      |
| Calcium chloride     |                  | <1 | USA | NC             | -                      |
| Magnesium chloride   |                  | <1 | USA | NC             | 2(T)                   |
| Potassium chloride   |                  | <1 | USA | NC             | 2                      |
| Sodium chloride      |                  | <1 | USA | Food           | 10                     |
| Calcium citrate      |                  | <1 | USA | NS             | -                      |
| Magnesium citrate    |                  | <1 | USA | NS             | -                      |
| Potassium citrate    |                  | <1 | USA | NS             | 2                      |
| Sodium citrate       |                  | <5 | USA | NS             | 2                      |
| Calcium phosphates   | including:       | <1 | USA |                |                        |
| Magnesium phosphates | *pyrophosphates  | <1 | USA |                | 5                      |
| Potassium phosphates | *polyphosphates  | <1 | USA | *              | 11(T)                  |
| Sodium phosphates    | *orthophosphates | <5 | USA |                | 5                      |
| Calcium sulphate     |                  | <1 | USA | NS             | 12                     |
| Magnesium sulphate   |                  | <1 | USA | -              | -                      |
| Potassium sulphate   |                  | <1 | USA | NE             | -                      |
| Sodium sulphate      |                  | <1 | USA | -              | -                      |
| Calcium tartrate     |                  | <1 | USA | 0-30           | } 5 for L (+)<br>acids |
| Magnesium tartrate   |                  | <1 | USA | L (+)<br>acid} |                        |
| Potassium tartrate   |                  | <1 | USA | NE-DL          | }                      |
| Sodium tartrate      |                  | <1 | USA | Acid           |                        |
| Sodium silicates     |                  | <1 | USA | -              | -                      |

\* Pyrophosphates and polyphosphates NE Orthophosphates 0-70 (as P).

#### I. ANTIFOAMING AGENIS

|   | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI   | Spec. |
|---|------------------------|------------------------|----------------|-------|-------|
| Dimethyl polysiloxane singly or in combination with silicon dioxide |                        | 20                     | USA            | 0-0.5 | 2(T)  |

#### J. DETERGENTS

|                          | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI | Spec. |
|--------------------------|------------------------|------------------------|----------------|-----|-------|
| Sodium xylene sulphonate |                        | <1.0                   | UK             |     |       |
| Sodium lauryl sulphate   |                        | <1.0                   | USA            | NE  |       |

K. ANTIOXIDANTS

|                             | Additional Information | Residual Level (mg/kg) | Origin of Data | ADI        | Spec. |
|-----------------------------|------------------------|------------------------|----------------|------------|-------|
| Butylated hydroxyanisole    |                        | 20                     | USA            | 0-0.5* (T) | 13    |
| Butylated hydroxytoluene    |                        | 20                     | USA            | 0-0.5* (T) | 13    |
| Tertiary butyl hydroquinone |                        | 20                     | USA            | 0-0.5* (T) | 5 13  |
| Propyl gallate              |                        | 20                     | USA            | 0-0.2 (T)  | 5 13  |

\* Singly or the sum of the three compounds.

L. OTHERS

|        | Additional Information  | Residual Level (mg/kg) | Origin of Data | ADI | Spec. |
|--------|-------------------------|------------------------|----------------|-----|-------|
| Casein | Used to break emulsions | -                      | -              | -   | -     |

M. BACTERIOCIDAL DETERGENT

|  | Additional Information | Residual Level (mg/kg) | Origin of Data       | ADI | Spec. |
|--|------------------------|------------------------|----------------------|-----|-------|
| Iodophors<br>Quaternary Ammonium compounds<br>Hypochlorite |                        |                        | New Zealand<br><br>" |     |       |

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APPENDIX IX

REPORT OF THE AD IDC WORKING GROUP ON METHODS OF ANALYSIS AND SAMPLING

The following members constituted the ad hoc Working Group on Methods of Analysis and Sampling:

1. Mr R D Amarasingham (Malaysia)
2. Dr Boon Keng Tan (Malaysia)
3. Mr M Pike (FOSFA/ISO)
4. Mr W D Pocklington (UK)
5. Mr D M Radcliffe-Genge (ISO)
6. Dr N Rao Maturu (FAO)
7. Dr J B Rossell (FOSFA)
8. Dr R J Sims (USA/AOCS)
9. Dr K A Williams (IUPAC/IASC)
10. Dr R Wood (UK) (Chairman)

The Working Group considered a number of items arising from the work of the Codex Committee on Food Additives, the Report of the Twelfth Session of the Codex Committee on Methods of Analysis and Sampling (ALINORM 81/23) and the on-going review of the methods of analysis included in the Codex Fats and Oils Standards. The following items were specifically discussed:

1. Methods of Analysis for Food Additives

The Working Group recognised that it is the responsibility of CCFA to consider methods of analysis for the determination of food additives in foods. However, the Working Group considered that, in view of the particular difficulties that are present in the determination of food additives in fats and oils, CCFA should advise CCFO as and when methods for food additives in these products are being developed by that Committee. CCFO should likewise keep CCFA informed of any progress being made in the development of methods of analysis for food additives in oils and fats. In this respect the development of the method for the identification and determination of emulsifiers derived from fatty materials by, the IUPAC Commission on Oils, Fats and Derivatives was specifically mentioned.

2. Methods of Analysis for the Determination of Metallic Contaminants in Fats and Oils

The Working Group considered whether the general methods of analysis for the determination of metallic contaminants proposed by CCMAS were applicable to the Fats and Oils Standards. The Working Group recognised the value of using the general methods if at all possible and that modern instrumental analytical methods were preferable to 'classical' procedures. The Working Group suggested that:

2.1 Arsenic

The general method proposed by CCMAS was acceptable as the Type II reference method for the Fats and Oils Standards (see method 18, Table 1).

2.2 Lead

The general method proposed by CCMAS was considered to be unacceptable for the determination of lead in oils and fats because of the wet digestion procedure that is stipulated (i.e. the wet digestion of at least 30 g of sample by a sulphuric, nitric and perchloric acids mixture).

The Working Group considered that a dry ashing procedure combined with an atomic absorption spectroscopic end-point determination should be used. The AOAC procedures AOAC (1980) 25.095, 25.096, 25.064, 25.065, 25.067 were proposed as the method of analysis for lead but that advice should be sought from CCMAS and IUPAC as the feasibility of combining the procedures. The method would be classified as a Type IV procedure until such advice had been received.

### 2.3 Copper

The same objection to the general method proposed by CCMAS was made for this element as for lead (2.2 above). The Working Group suggested using the same dry ashing procedure as for lead together with the AOAC atomic absorption spectroscopic finish (see method 16, Table 1). The advice of IUPAC and CCMAS is again requested on the suitability of the procedure which is to be classified as a Type IV method at present.

The AOCS method (Ca 15-1976) was not considered suitable because of a lack of sensitivity.

### 2.4 Iron

The Working Group considered that the AOCS method (Ca 15-1976) could be suitable for the determination of iron in fats and oils and could therefore be recommended as a Type IV method.

### 2.5 Nickel

The Working Group considered that the AOCS method (Ca 15-1976) could be suitable for the determination of nickel in fats and oils and could therefore be included in the Standards as a Type IV method if any limit for nickel were to be prescribed.

## 3. Sampling

### 3.1 Availability of Sampling Plans for Fats and Oils

The Group noted that the Draft International Standard (ISO/DIS 5555) 'Animal and Vegetable Fats and Oils - Sampling' had recently been circulated for comment and that the existence of the document should be brought to the notice of CCMAS as that Committee had requested information on all available sampling plans for foodstuffs.

### 3.2 Sampling Plans for the Determination of Contaminants in Food (CX/FA 82/8)

The Group was asked to consider the above document: however, because of lack of time, the Working Group desired to make further comments on the document after the present Session of CCFO. Comments that were made included:

1. Was it necessary to have a separate sampling plan for metallic contaminants in fats and oils as the limits for these metals were set on the basis of quality rather than toxicology?
2. The definition of contaminant given on page 2 of the document appears to conflict with the description of the nature of contaminants given on page 4 of the document.

- The recommendations given in the document directly conflict with the approach to sampling being suggested by CCMAS in the 'General Principles for the Selection of Sampling Plans' which are being developed by that Committee.

4. Review of Methods of Analysis in Fats and Oils Standards and Draft Standards

The Working Group reviewed and classified the methods of analysis in the Standards. These classifications are given in Table 1, together with the changes in methods suggested by the Group. The Group commented that:

- The IOOC request regarding methods 7, 9, 14, 24 and 28 to retain separate procedures for Olive Oil was accepted but it was noted that IOOC did not object to a change in method 2.
- The Group did not accept the request from Portugal to include the Hanus method for the determination of iodine value (method 5, Table 1).
- The Group recommended that the IUPAC procedure for total fat be substituted for the present method in the margarine standard.
- The Group recommended that, the IUPAC procedure for tocopherols be substituted for the present method in the appropriate Standards.

5. Slip-Point

The Working Group noted that ISO were developing and collaboratively testing a method for the determination of slip-point; the method should be suitable for inclusion in the Draft Standard for [Vanaspati/Mixed Vegetable Fats].

List of Revised Methods of Analysis for Codex Standards for Fats and Oils and their Classification according to the CCMAS Schema

| No. | Method Title                            | Standards in which cited (CAC/RS)    | Method Proposed  | Codex Classification |
|-----|---|--------------------------------------|--|----------------------|
| 1.  | Relative Density                        | 20-31, 34 & }<br>new veg. Oils }     | CAC/RM 9-1969  | II                   |
| 2.  | Relative Density                        | 33 }                                 |  |                      |
| 3.  | Refractive Index                        | 20-31, 33, 34 & }<br>new veg. oils } | IUPAC 6th Ed. (1979)<br>2.102                                | II                   |
| 4.  | Saponification Value                    | 20-31, 33, 34 & }<br>new veg. oils } | IUPAC 6th Ed. (1979)<br>2.202 Sections 1-4.6<br>and ISO-3657 | I                    |
| 5.  | Iodine value (Wijs Method)              | 20-31, 33, 34 & }<br>new veg. oils } | IUPAC 6th Ed. (1979)<br>2.205 & ISO-3961                     | I                    |
| 6.  | Unsaponifiable Matter (Diethyl Ether)   | 20-31, 34 & }<br>new veg. oils }     | IUPAC 6th Ed. (1979)<br>2.401, 1-5                           | I                    |
| 7.  | Unsaponifiable Matter (Light Petroleum) | 33                                   | IUPAC 5th Ed. (1966) II<br>D 5.1, 5.2                        | I                    |
| 8.  | Acid Value                              | 19-31, 34 & }<br>new veg. oils }     | IUPAC 6th Ed. (1979)<br>2.201, 1-4                           | I                    |
| 9.  | Free Acidity                            | 33                                   | IUPAC 6th Ed. (1979)   | I                    |

|      |   |  |   |    |
|------|---|--|---|----|
|      |   |  | 2.201, 1-4, 6   |    |
| 10.  | Peroxide Value                              | 19-31, 33, 34 & new veg. oils          | IUPAC 6th Ed. (1979)<br>2.501 & ISO-3960                      | I  |
| .11. | Matter Volatile at 105°C                    | 19-31, 33, 34 new veg. oils & minarine | IUPAC 6th Ed. (1979)<br>2.601 & ISO R-662<br>(under review)   | I  |
| 12.  | Insoluble Impurities                        | 19-31, 33, 34 & new veg. oils          | IUPAC 6th Ed. (1979)<br>2.604 & ISO 663 (under review)        | I  |
| 13.  | Soap Test (Quantitative)                    | 19-31, 34 & new veg. oils              | Present Method  | I  |
| 14.  | Soap Test (Qualitative)                     | 33                                     | Present Method  | I  |
| 15.  | Iron Content                                | 19-32, 34, new veg. oils & minarine    | AOCS Ca 15-1976   | IV |
| 16.  | Copper Content                              | 19-32, 34, new veg. oils & minarine    | AOAC (1980) XIII<br>25.095, 25.096, 25.047<br>25.048          | IV |
| 17.  | Lead Content                                | 19-32, 34, new veg. oils & minarine    | AOAC (1930) XIII<br>25.095, 25.096, 25.064,<br>25.065, 25.067 | IV |
| 18.  | Arsenic Content                             | 19-32, 34, new veg. oils & minarine    | AOAC (1980) XIII<br>25.006-008, 012-013                       | II |
| 19.  | Prep. of fatty acid methyl esters           | 20-31, 33, 34 & new veg. oils          | IUPAC 6th Ed. (1979)<br>2.301 & ISO 5509                      | II |
| 20.  | Analysis by GLC of fatty acid methyl esters | 20-31, 33, 34 & new veg. oils          | IUPAC 6th Ed. (1979)<br>2.302 & ISO 5508                      | II |
| 21.  | Peanut Oil Test (Evers)                     | 21                                     | Present Method  | I  |
| 22.  | Peanut Oil Test (Renard)                    | 21                                     | AOAC (1980) XIII<br>28.113                                    | I  |
| 23.  | Halphen Test                                | 22                                     | Present Method  | I  |
| 24.  | Cottonseed Oil Test                         | 33                                     | Present Method  | I  |
| 25.  | Crismer Value                               | 24 & LEAR Standard                     | Present Method  | I  |
| 26.  | Sesame Oil Test (Baudoin)                   | 26                                     | Present Method  | I  |
| 27.  | Sesame Oil Test (Villa-vecchia)             | 26                                     | Present Method  | I  |
| 28.  | Sesame Oil Test A and B                     | 33                                     | Present Method  | I  |
| 29.  | Titre                                       | 28-31                                  | IUPAC 6th Ed. (1979)<br>2.121                                 | I  |

|     |                                    |   |   |    |
|-----|------------------------------------|---|---|----|
| 30. | Milk Pat Content                   | 32, minarine                              | Present Method                                | I  |
| 31. | Fat Content                        | 32, minarine                              | IUPAC 6th Ed (1979)<br>2.801 Sections 5 & 6   | I  |
| 32. | Water Content                      | 32  | Present Method                                | I  |
| 33. | Vitamin A Content                  | 32, minarine                              | AOAC (1980) XII<br>43.001-007                 | II |
| 34. | Vitamin D Content                  | 32, minarine                              | AOAC (1980) XII<br>43.195-208                 | II |
| 35. | Vitamin E Content                  | 32, 33, minarine                          | IUPAC 6th Ed. (1981) 2-<br>404                | II |
| 36. | Sodium chloride<br>content         | 32, minarine                              | Appendix IV ALINORM<br>79/23                  | II |
| 37. | Bellier Index                      | 33  | Present Method                                | I  |
| 38. | Semi -siccative oil<br>test        | 33  | Present Method                                | I  |
| 39. | Olive residue test                 | 33  | Present Method                                | I  |
| 40. | Teaseed Oil Test                   | 33  | Present Method                                | I  |
| 41. | Specific Extinction                | 33  | Present Method, IUPAC<br>2.505 and ISO 3656   | I  |
| 42. | Fatty acids in<br>position 2.      | 33  | IUPAC 6th Ed.. (1979)<br>2.210                | II |
| 43. | Sterols                            | 33 and LEAR<br>Standard                   | IUPAC 6th Ed. (1979)<br>2.403                 | II |
| 44. | Allyl<br>isothiocyanate<br>content | 34  | Present Method                                | II |
| 45. | Reichert value                     | Coconut, palm<br>kernel & babassu<br>oils | IUPAC 6th Ed. (1979)<br>2.204 1-7, 8.1, 9, 10 | I  |
| 46. | Polenske value                     | Coconut, palm<br>kernel & babassu<br>oil  | IUPAC 6th Ed. (1979)<br>2.204 1-7, 8.2, 9, 10 | I  |
| 47. | Erythrodiol<br>Content             | Grapeseed oil                             | -   | II |

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APPENDIX X

OUTSTANDING ITEMS OF WORK REMAINING AFTER THE 12th SESSION OF THE  
CODEX COMMITTEE ON FATS AND OILS.

1. Draft Standard for [Vanaspati/Mixed Vegetable Fats] at Step 5
2. Draft Standard for [Mixed Vanaspati/Substitute Ghee] at Step 5.
3. Draft Amendments to Codex Standard for Rapeseed Oil at Step 5.
4. Processing Aids.
5. Review of the GLC fatty acid ranges.
6. Review of Identity Characteristics based on Sterol ranges.
7. Consideration of methods of analysis
  - a) Method for erythrodiol
  - b) Work arising from comments of CCMAS on review of methods undertaken by CCFO.
8. Matters arising from other Codex Committees.