

codex alimentarius commission

FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD HEALTH
ORGANIZATION

JOINT OFFICE:

Via delle Terme di Caracalla 00100 ROME: Tel. 57971 Telex: 610181 FAO I. Cables Foodagri

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REPORT OF THE FOURTEENTH SESSION OF THE
CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING

Budapest

26-30 November 1984

Includes also the Report of the
Fifth Inter-Agency Meeting,
Budapest, 22-23 November 1984

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INTRODUCTION

1. The Codex Committee on Methods of Analysis and Sampling held its Fourteenth Session from 26 to 30 November 1984 in Budapest, by courtesy of the Government of Hungary. The Session was opened by Dr. K. Sütő, President of the Hungarian National Codex Committee and Vice-President of the Hungarian Office for Standardization who welcomed the participants.
2. The Committee was chaired by Dr. R. Lásztity, Professor, Department of Biochemistry and Food Technology, Technical University, Budapest.
3. The Session was attended by delegates from 30 countries and observers from 11 International Organizations. The list of participants, including officers from FAO, is attached as Appendix I. to this Report.

ADOPTION OF THE AGENDA

4. The Committee adopted the provisional agenda without any change.

APPOINTMENT OF RAPORTEURS

5. The Committee appointed Ms. E. Campbell (USA) and Mr. R. Sawyer (UK) as rapporteurs for the Session. The Committee noted a request by the Executive Committee that Codex reports should be as brief and concise as possible, without sacrificing essential details on important points (see para 45, ALINORM 83/4).

MATTERS OF INTEREST TO THE COMMITTEE

6. The Committee had before it document CX/MAS 84/2 containing matters arising from Codex Committees. It was agreed that only very few matters required action by the Committee under this item of the agenda, as other matters referred to the Committee would be dealt with elsewhere on the agenda. The Committee was informed of work on net contents by the Codex Committee on Food Labelling. The Committee discussed whether the question of net contents should be considered at the present session. It was agreed that the Committee had gone as far as it could in the field of sampling for net contents, but agreed that the question should be discussed briefly in relation to the work of the Codex Committee on Food Labelling. 1/
7. The Committee noted that the work of the Codex Committee on Food Labelling on the elaboration of Guidelines on Nutrition Labelling would result in future work for the Committee in endorsing appropriate methods of analysis proposed by the Codex Committee on Food Labelling for verifying claims on labels regarding the presence of nutrients.
8. The Committee was also informed by the Secretariat of matters arising from the Coordinating Committee for Europe, the Codex Committee on Processed Fruits and Vegetables and the Recommendations of a recent meeting in Madrid concerning the revision of the Codex Standard for Tabela Olives. It was noted that these matters would be considered at a future session of the Codex Committee on Methods of Analysis and Sampling.

METHODS OF ANALYSIS

Establishment of a Working Group of Experts on Endorsement of Methods of Analysis

9. On the suggestion of the Chairman of the Committee, it was agreed to set up a Working Group of Experts to consider items 5.3, 5.4 and 5.5 of the agenda dealing with technical matters requiring detailed consideration by representatives familiar with the performance of methods currently used in food control. The following participants were included in the Working Group: Australia, Austria, Canada, China, Cuba, Czechoslovakia, Federal Republic of Germany, Finland, India, Hungary, Mexico, The Netherlands, Norway, Spain, Sweden, Switzerland, USA, USSR, UK, EEC, ISO, NMKL, IDF, IFGMA, IFJU, IUPAC and FAO.

1/ Note by the Secretariat: the question of sampling for net weight was not discussed during the Session.

CONSIDERATION OF THE MANDATORY OR ADVISORY STATUS OF
CODEX METHODS OF ANALYSIS

(a) Codex Reference Methods (Type II)

10. The Committee decided to discuss the above issue in plenary session taking into account documents CX/MAS 84/3 and CX/MAS 84/3, Annex I and the Government comments received. Some delegations were in favour of Codex reference methods (Type II) being only advisory. To support this view, the point was made that if Codex reference methods were made mandatory, i.e. subject to acceptance by Governments, this would create problems where specific analytical instruments required for use in a particular method are not generally available. Similar problems would also occur in situations where food control is decentralized, i.e. where the Government concerned has no jurisdiction over the choice of methods used by the various enforcement laboratories. Other delegations were of the opinion that the role of Codex reference methods should be to prevent or resolve disputes over the results of analysis of foods moving in international trade. It was, therefore, essential that the use of Codex reference methods be obligatory in such circumstances.

11. Following detailed discussion, the Committee agreed to recommend to the Commission that the use of Codex "reference methods" should be obligatory in cases of disputes involving the results of analysis and that non-acceptance of cited Codex reference methods included in a Standard should be considered as a deviation from full acceptance of the Codex Commodity Standard concerned. The delegate from the USSR expressed the opinion that Codex "reference methods" should correspond to internationally accepted metrological characteristics.

(b) Codex Alternative Approved Methods (Type III)

12. The Committee agreed that Codex "alternative approved methods" should be regarded as advisory methods. They were not intended to be used in dispute situations in lieu of "Codex reference methods".

(c) Adoption of Recommendations to the Commission concerning
the Status of Codex Methods

13. The Committee discussed the text included in Appendix II to ALINORM 83/23, and adopted it with some amendments. The amended text which clarifies the obligation falling on Governments accepting Codex standards containing methods of analysis is given in Appendix IV to this report. The Secretariat was requested to submit the text to the Commission for adoption and further action.

14. The delegations of The Netherlands and the USA were of the opinion that the current definitions of Type I and Type II Methods, which made reference to these methods also being recommended for calibration purposes, were inconsistent with the recommendations adopted by the Committee for the clarification of the acceptance by Governments of Codex methods of analysis. They, therefore, recommended that reference to calibration should be deleted in the definitions included in the Procedural Manual of the Codex Alimentarius Commission. Following discussion, the Committee decided not to proceed with the amendment of the definitions of Codex Type I and Type II methods.

15. In reply to a question, the Secretariat expressed the opinion that it would be appropriate to include tentative methods both in draft Codex Standards and in Codex Standards provided the status of such tentative methods were clearly indicated as being "non-approved" and not subject to acceptance. The Committee agreed with this view.

Review of Codex Methods of Analysis

16. The Committee had before it documents CX/MAS 84/4 Parts I and II prepared by Australia and the Codex Secretariat. Part I of the document gave a progress report on the review by Codex Committees of Codex methods of analysis, whilst Part II gave examples of possible presentation and format of printouts from the computer data file which contained information on all Codex methods adopted or under elaboration.

17. As regards the review of Codex methods of analysis, the Committee noted that the Codex Committee on Cocoa Products and Chocolate or its Secretariat may have to consider a further review of the methods contained in the published standards. It noted that the OICC was planning a study of methods of analysis recommended for cocoa and chocolate products. The Committee was informed that, with the exception of certain methods of analysis for cocoa butter, the OICC methods of analysis for cocoa and chocolate products were thought to be up-to-date.

18. The Committee noted with satisfaction progress made in the review by the various Codex Committees of methods of analysis and also noted that such reviews would lead to further work both as regards the endorsement of the methods and the amendment of Codex standards.

19. The Committee was informed of work done by an FAO consultant and by the Australian Department of Primary Industries on the complete computer listing of Codex methods of analysis. The document prepared by Australia illustrated possible ways of presentation of the information. The opinion was expressed that the listing should indicate the "Type" of each of the Codex methods of analysis, classified in accordance with the agreed system. Presentation according to food product being analyzed was considered to be a useful way of listing Codex methods. It was also suggested that both presentations should give the exact location of the method concerned in the relevant publications.

20. As regards the indication of whether a Codex method is Type I, II or III (or even Type IV in the case of some of the early methods adopted) in the above mentioned exercise carried out by the FAO consultant, the Committee agreed that it will be necessary to indicate in some appropriate manner those methods which have been endorsed by the CCMAS as being of a particular "Type". Other methods should be considered by the Committee with a view of endorsement of the method or of the classification proposed by the consultant. This procedure was considered essential in view of the particular status and role of Codex methods in relation to health protection and facilitation of international trade.

Report of the Working Group of Experts on Analysis

21. The Committee had before it documents CX/MAS 84/5, CX/MAS 84/6-Parts I, II and III, Room Document No.4 and CX/MAS 84/7 as well as Room Document No.1- Report of the Working Group of Experts on Analysis. Dr. W. Horwitz, Chairman of the Working Group gave a verbal account of the conclusions of the Working Group. He indicated that the Group had considered all the methods before it, with the exception of those for sugars. It was noted that comments were still being received and that it was the intention of the UK Secretariat of the Codex Committee for Sugars to prepare a revised document and to submit it for comments to Governments.

- Guidelines on Information Needed for Endorsement

22. The Working Group had proposed minor amendments in the text and a modification of the order of presentation of the document CX/MAS 84/5. The matter is reported on under the item of the agenda concerned with the Inter-Agency Meeting (see para 59 of this Report). The Working Group had expressed the view that the International Organizations that would like their methods of analysis adopted by Codex should be responsible for assembling all the information as required, and making it available to the Codex Committee on Methods of Analysis and Sampling. The Committee agreed with the proposals of the Working Group.

- Endorsement of Methods of Analysis

23. The Committee was informed that the Group had been handicapped in its work by a lack of appropriate information needed for endorsement and had had to work under considerable pressure. In order to improve the efficiency in the future, it was recommended that further emphasis be given to the need for full documentation of methods in accordance with the guidelines and that the matter be brought to the attention of Commodity Committees and the International Organizations concerned with method development and evaluation. The Committee accepted the recommendation.

- Definition of Limit of Determination

24. The Committee was informed that the Group had confirmed its preference for the concept of limit of determination rather than limit of detection. It was emphasized that methods proposed to enforce limits in standards should be capable of reliably determining the parameter concerned at least at the level specified. The Committee agreed with this proposal. It was also agreed to request comments on the regulatory implications and the definition of the 'limit of determination'. The delegation of the USA agreed to assist the Secretariat in preparing a paper on which Government comments would be sought.

25. The delegation of India stated that some Codex methods of analysis would be difficult for developing countries to adopt and apply. It was pointed out that this matter had been raised at previous meetings of the Committee and that the selection of appropriate Codex methods were dictated by provisions in Codex standards and any difficulties encountered by developing countries should be resolved by upgrading the analytical capabilities of these countries rather than by derogations on the choice of Codex methods.

26. The Committee recommended that the need for up-grading the analytical capabilities of developing countries be brought to the attention of the appropriate authorities in FAO and WHO and to the Codex Alimentarius Commission.

Establishment of an Ad Hoc Working Group of Experts on Analysis

27. The Committee thanked the Chairman and Members of the Working Group (see Appendix II) and decided that the Working Group should be reappointed to carry on its work between this and the next Session.

SAMPLING

Establishment of a Working Group on Sampling

28. The Committee decided to set up a Working Group to deal with certain technical questions on sampling (definition of terms, endorsement of sampling provisions in Codex Standards and sampling for contaminants). Other questions of a general nature were discussed in plenary session. Delegations from the following countries and International Organizations took part in the Working Group: Australia, Canada, Cuba, Cameroon, Federal Republic of Germany, Finland, France, Hungary, Mexico, The Netherlands, Norway, Poland, Spain, Sweden, Switzerland, United Kingdom, USA, EEC, IDF, ISO, IFGMA and FAO.

29. It was also decided to set up a small Working Group consisting of Canada, Norway and the USA to discuss sampling of fish blocks (Document CX/MAS 84/11).

Status of Codex Sampling Methods

30. The Committee had before it a document prepared by the Secretariat (CX/MAS 84/13) on the question of whether Codex sampling procedures should be mandatory or advisory, i.e. whether or not they should be subject to acceptance and implementation by Governments. The Committee also had before it a document prepared by the United Kingdom and the United States of America containing guidelines on the application of the General Principles for the Establishment or Selection of Codex Sampling Procedures (the Guidelines) and documents (CX/MAS 84/8 and Room Document No.5).

31. It was agreed that these documents should be discussed together. The delegation of the United Kingdom introduced the Guidelines and pointed out that they were intended for Codex Commodity Committees in selecting appropriate sampling procedures. The Guidelines would also assist these Committees in the interpretation of compliance of food products moving in trade with Codex standards. In the opinion of the UK delegation, sampling procedures were integral parts of Codex standards similarly, to Type I Codex methods and should be subject to acceptance by Governments.

32. The Chairman of the Committee was of the opinion that the following issues should be clarified in relation to the purpose and status of Codex sampling procedures:

- (a) Should Codex develop practical sampling procedures to be used in normal food control or develop statistically complete sampling procedures for use in cases of dispute?
- (b) Should Codex sampling procedures be mandatory or advisory?
- (c) Can lot acceptance criteria be separated from prescriptions related to sample size as regards their mandatory or advisory nature?
- (d) Is there a need to engage the services of a FAO Consultant to examine the various questions relating to sampling?

33. The Committee discussed whether Codex sampling procedures should be mandatory or advisory. Some delegations agreed with the United Kingdom that Codex sampling procedures should be mandatory. The reasons put forward for this view were that harmonization of sampling procedures would prevent disputes from arising and would, therefore, facilitate the exchange of foods in international trade. Furthermore, certain health-related criteria and other criteria included in Codex standards would require standard sampling procedures for their definition and these would necessarily be mandatory. Other delegations were of the opinion that Codex sampling procedures should be mandatory only in situations of dispute.

34. A number of delegations were of the opinion that Codex sampling procedures should only be advisory. This was so, because the sampling plans currently under discussion would require large sample size and destructive sampling represented loss of food and an economic burden for Governments in the inspection of shipments of foods.

35. The opinion was expressed that Codex sampling procedures or guidelines on sampling should take into account the WHO Health Hazard Analysis Critical Control Point System in order to rationalize sampling for criteria relating to health protection. The WHO system tended to reduce the destruction of food and the cost of sampling and analysis. Another advantage of the WHO system is that it prevents situations from arising which may represent a hazard to the health of consumers. The critical control points for taking samples should be identified in appropriate Codex documents relating to sampling.

36. The Committee had a preliminary discussion of document CX/MAS 84/8. It was noted that in paragraph 3 of the paper, a distinction was made between compositional criteria which were normally distributed and compositional criteria which were non-normally distributed. The General Principles adopted by the Committee for the selection of Codex sampling procedures, on the other hand, did not distinguish between these two situations. It was pointed out that document CX/MAS 84/8 made the distinction to cover the non-normally distributed compositional criteria which were not health-related.

37. The Committee agreed that the two paragraphs relating to compositional criteria should be combined under one heading in order that document CX/MAS 84/8 be in line with the Codex General Principles relating to sampling procedures. Following further remarks of an editorial nature, the Committee decided to refer document CX/MAS 84/8 to the Working Group on Sampling for further consideration. It was agreed that the elaboration of guidelines such as those contained in document CX/MAS 84/8 was important as they provided useful guidance to Codex Commodity Committees. The point was made that, in addition to being useful guidelines for Codex Commodity Committees, the document also represented general guidelines on sampling which were of direct interests to all those concerned with sampling food for the purpose of verifying compliance with Codex standards. It might, therefore, be useful to develop the document further by including in it other relevant material relating to sampling.

38. The Committee agreed that Codex should, in principle, develop sampling procedures which can be used in normal food control practices, but that in certain situations (e.g. checking compliance with health-related provisions, net contents, etc.) mandatory Codex sampling procedures may have to be developed, i.e. sampling procedures which would be subject to acceptance by Governments. It was also agreed that the mandatory or advisory status of Codex Sampling Procedures needed further discussions in the light of the particular circumstances prevailing and in relation to individual sampling procedures. Furthermore, the question of whether certain parts of Codex Sampling Procedures (e.g. lot acceptance criteria) could be regarded as mandatory should be further examined.

Guidelines on Administrative Aspects of Sampling

39. The Committee received a verbal statement by the Secretariat concerning the question of the possible elaboration of guidelines on various aspects of sampling. Using ISO document ISO/DIS 7002, the Secretariat pointed to various aspects which might usefully be subject to international agreement or at least be included in Codex Guidelines, e.g., ways of handling samples taken, point of sampling, resampling following dispute over results of analysis, clarification of compliance of consignments consisting of several lots representing part of a lot, etc.

40. The delegate from Australia was strongly in favour of such guidelines being developed and gave further examples of aspects which could be covered, e.g., guidelines on reporting of results, preparation of samples, availability of samples for customs inspection, labelling and sealing of samples, documentation required for sampling, etc.

41. The Committee agreed that the elaboration of such guidelines would be useful and requested the Secretariat to explore the possibility of developing a suitable paper for the next Session of the Committee. The delegation of Australia accepted to collaborate in the development of the Codex Guidelines.

Report of the Working Group on Sampling

42. The Committee received a verbal report from the Chairman of the Working Group on Sampling (Dr. R. Wood, UK) on the conclusions reached by the Group. The report of the Working Group is attached as Appendix III to this report.

- Guidelines for Codex Committees in the Selection of Sampling Methods

43. The Committee noted that the Group had made amendments to the Guidelines and had recommended a procedure to be followed for their further elaboration. The Committee adopted the amended Guidelines and concurred with the conclusions of the Working Group regarding the procedure to be followed (see para 6, Appendix III to this report). It agreed that it would not be necessary for the Guidelines to follow the "Codex Step Procedures", since at present, the Guidelines were an internal Codex document. However, should the Committee decide at some future point to develop guidelines on sampling intended for broader application, such a document would have to follow the Codex "Step Procedure".

44. The delegation of Switzerland wished it to be recorded that the acceptance criteria on page 10(B) (see CX/MAS 84/8) were unduly unfavourable to the producer. The Chairman of the Working Group agreed to consider this matter. It was also agreed that the Guidelines should incorporate Room Document No.5 and other information provided by the Chairman of the Working Group and that various references to international standards should be checked and corrected (see also para 31 of this report).

- Definition of Terms used in Sampling

45. The Committee noted that the Working Group had decided to take over the ISO definitions needed for document CX/MAS 84/8 from working document CX/MAS 84/9 but had proposed certain amendments to the definitions. These proposed changes would be transmitted to the ISO Secretariat. The Committee agreed with the conclusions of the Working Group, noting that the ISO definitions had been submitted not only to ISO Members but also to Codex Contact Points for comments (see also para 59 of this report).

46. The delegation of Australia stressed that Codex should not embark on work on the establishment of new definitions on sampling; rather ISO should improve its definitions on the basis of comments received. The representative of ISO stated that any comments received would be taken into consideration before the ISO definitions were finalized (see Appendix III).

- Endorsement of Methods of Sampling

47. The Committee noted that the Working Group had not been able to endorse the provisions for sampling included in Codex Commodity Standards, in view of the fact that

certain questions had not yet been resolved (see paras 8,10, Appendix III). It was agreed that the Inter-session Working Group on Sampling should consider further the question of endorsement of these Codex Sampling Procedures.

- Sampling Procedures for Contaminants in Codex Standards

48. The Committee was informed that the Working Group on Sampling had noted document CX/MAS 84/12 without reaching any conclusions about the approach to be followed in sampling for checking compliance with provisions for contaminants. The point was made that there were various types of contaminants which would require different sampling procedures and lot acceptance criteria. For this reason, it would be difficult to make general recommendations concerning the approach to be followed in sampling.

49. The delegation of China, commenting on document CX/MAS 84/12 dealing with sampling procedures for contaminants, considered that, in general, Item II.C. in document CX/MAS 84/12 (a single composite analyzed) was a more practical approach. However, for a number of commodities, if the size of the consignment was too large, Item II.B. (multiple composites analyzed) could be used to divide the consignment into small "lots" for drawing sample.

50. The Committee requested the Inter-session Working Group to consider these matters on the basis of comments received and to transmit its views to the Codex Committee on Food Additives.

51. The Committee adopted the report of the Working Group (given in Appendix II to this report) and decided to set up a new Inter-session Working Group on Sampling with Dr. R. Wood as coordinator and the same membership as given in Annex I to Appendix III. The Committee expressed its appreciation to Members of the Working Group and its Chairman for their work. It was agreed that it would be desirable for FAO to engage a consultant to review Codex work on sampling.

REPORT OF THE AD HOC WORKING GROUP ON ALTERNATIVE SAMPLING PLANS FOR FISH BLOCKS

52. The Committee received a verbal report from the Chairman of the Working Group, Dr. A.P. Rainosek (USA), concerning the conclusions of the Group. Noting the significant economic importance of this product, it was agreed that efforts should be made to develop internationally acceptable sampling procedures.

53. The Committee adopted the report of the Working Group and requested the Secretariat to submit the recommendations of the Group directly to the Codex Committee on Fish and Fisheries Products (CCFFP) for consideration, should that Committee meet before the Codex Committee on Methods of Analysis and Sampling. The Committee would consider the conclusions of the Working Group at its next Session, together with the views of the CCFFP, if available. The Report of the Working Group is given in Appendix V to this Report.

54. The Committee thanked the Members and Chairman of the Working Group and requested them to carry on their work between the sessions of the Committee.

REPORT OF THE INTER-AGENCY MEETING

55. The representative of ISO reported that the Fifth Inter-Agency Meeting had been held in Budapest on 22 and 23 November 1984. It had been attended by representatives of eight International Organizations. A full report of the Inter-Agency Meeting was before the Committee as Room Document No.3 (see Appendix VI to this report).

- Terms of Reference of the Inter-Agency Meeting

56. The representative of ISO reported that the Inter-Agency Meeting had adopted terms of reference, had agreed a continuing membership and had also agreed that its Secretariat should be held by the ISO Central Secretariat.

- International Cooperation in the Development and Validation of Methods of Analysis

57. The Meeting had discussed the procedures for international cooperation in the field of standardization of methods of analysis and sampling as required by Codex. The principal topics discussed were: (a) validation of methods of analysis; (b) practical cooperation in collaborative testing; and (c) certification and testing in relation to laboratory accreditation. Reports had also been made by various International Organizations on progress made in development and standardization of methods of analysis.

58. In discussion of the report, the delegation of the United States of America informed on the recent meeting on harmonization of collaborative inter-laboratory studies. At that meeting it emerged that the general approach to collaborative studies is practically harmonized except for the consideration of outliers. IUPAC would be requested to harmonize definitions, terminology and symbols used in collaborative testing. In this respect, the Committee noted that the Inter-Agency Meeting had set up a Working Group consisting of IUPAC, ISO, AOAC (providing the Secretariat) and Codex to develop a document on nomenclature, terms and definitions of sampling and analysis for the Codex based on the "ISO Vocabulary of Terms used in analytical methodology and sampling" and the respective IUPAC document. The Working Group was aware of parallel work in ISO and that there was a need to rationalize the available vocabularies. Dr. Horwitz, of the USA delegation, expressed the opinion that Codex had provided the impetus for the discussions on collaborative testing by the interested International Organizations and that it was for this reason that the CCMAS had been proposed by the meeting on harmonization of collaborative inter-laboratory studies as a member of a permanent Working Group on collaborative studies.

- Checklist of Information Required for Endorsement of Codex Methods of Analysis

59. In further discussions, the Committee agreed that the production of a checklist (see Annex I to Appendix II of this report) on information for validation of methods was a significant advance. In this connection, the attention of International Organizations was to be drawn to the requirement that the checklist will be applied in method assessment before acceptance of methods into the Codex Standards. It was further agreed that attention would be paid to methods in existing standards and that development of a review mechanism would be necessary and, in the circumstances, it would be desirable for Codex to participate in the proposed Working Group on Collaborative Studies (see paras 23 and 59 of this report).

- Computerization of Codex Methods of Analysis

60. The Committee noted that the computerized listing of methods of analysis in Codex Standards and draft Standards would also include a listing of criteria for which methods would have to be developed or selected.

- Laboratory Accreditation

61. The delegation of Australia pointed out that there was an increase in demand for laboratory accreditation and that, therefore, international agreement on accreditation criteria would be increasingly important.

- Conclusions

62. The Committee noted the report of the Inter-Agency Meeting and concurred with the conclusions drawn in that report (see Appendix VI of this report).

FUTURE WORK

63. The Committee noted that endorsement of methods of analysis in Codex Commodity Standards would be an ongoing activity. The review process (see paras 17-19 of this report) resulting from a recommendation of this Committee and presently being carried out by the Commodity Committees was considered to be important and it was expected that there would be available for endorsement further reviews by Commodity Committees. The Committee

noted that there would be an increased work load at future sessions arising from this activity and that measures should be taken in Codex to provide more resources, in order to meet this demand.

64. The Committee considered that significant progress had been made in the field of sampling and that consideration should be given to the elaboration of "General Guidelines on Sampling"

65. The Committee noted that the Inter-Agency Meeting would continue to be held in association with future sessions of the Committee and expressed the hope that there would be an increased participation of International Organizations in future sessions of the Committee. Collaboration with the Inter-Agency Meeting also represented future work for the Committee.

66. The delegate of Australia requested that participants at the Session give further early comment on document CX/MAS 84/4-Add.1 dealing with the presentation of Codex methods of analysis in the computerized listing (see para 61 of this report) in order that the work could be brought to a conclusion (see also paras 20-21 of this report).

OTHER BUSINESS

67. The delegation of India brought the attention of the Committee to the urgent need for the elaboration of a method for use in disputes for the determination of the total fruit content of fruit products. Absence of such a method, in the view of the delegation, was a hindrance to trade.

DATE AND PLACE OF NEXT SESSION

68. The Committee was informed that the next Session of the Codex Committee on Methods of Analysis and Sampling would be held during the first half of 1986 in Budapest. The exact dates for holding the Session would be agreed by the 16th Session of the Codex Alimentarius Commission meeting in Geneva, 1-15 July 1985.

69. The Committee expressed the view that certain organizational changes were needed at the next Session, to meet the increased work demands expected.

VALEDICTION

70. The Committee and the Secretariat expressed their appreciation to Prof. Dr. W. Krönert of the Federal Republic of Germany for his significant contribution to the work of the Committee over the many years. Dr. Krönert, who had been associated with the work of the CCMAS since its first session, indicated that he had been pleased to participate in the work of the Committee.

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LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS
LISTA DE PARTICIPANTES

Chairman of the Session
Président de la Session
Presidente de la Reunion

Dr. R. LASZTITY
Professor
Technical University
Dept. of Biochemistry and Food
Technology
Muegyetem rkp. 3
H-1111 Budapest,
Hungary

AUSTRALIA
AUSTRALIE

R.C. NORRIS
Australian Government Analyst
Department of Science and Technology
P.O. Box 65
Belconnen A.C.T. 2616

AUSTRIA
AUTRICHE

Dr. H. WOIDICH
Professor
Lebensmittelversuchsanstalt
Blaasstr. 29
A-1190 Wien

BRAZIL
BRESIL
BRASIL

C.E. PAES de CARVALHO
Counselor
Brazilian Embassy
Somlói ut 3
Budapest

CAMEROON
CAMEROUN
CAMERUN

J.A. NGALANI
Chargé de Recherche
Mesres
B.P. 1457
Yaoundé

CANADA

Dr. W.P. COCHRANE
Director, Laboratory Services
Division
Food Inspection Directorate
Agriculture Canada
Carlino Av.,
Ottawa
Canada K1A 0C5

J.F. LAWRENCE
Head,
Food Additives and Contaminants
Section
Food Research Division
Health Protection Branch
Ottawa, Ontario
Canada K1A 0L2

CHINA
CHINE

ZHANG JING
Deputy Director
8, Bao Shi Road,
Hangzhou
(or Zhejiang Import and Export
Commodity Inspection Bureau,
Hangzhou)

GUO RUI HUA
Livestock Specialist
Division of Standardization
Bureau of the Science and Technology
Ministry of Agriculture
Animal Husbandry and Fishery
Beijing, He ping Li

HU ZHENGZHI
Senior Engineer
Scientific Research Institute of Food
and Fermentation Industry
San Li Tun
Beijing 484542

LIU YANG RUI
Engineer
Guangdong Import and Export
Commodity Inspection Bureau of
the People's Republic of China
370, Huanshi Road,
Guangzhou, 76498

PAN KUN-YONG
Engineer
Wuhan Import and Export Commodities
Inspection Technology Institute
3, Wansongyuan Road,
Han Kou

ZHANG FU-CHANG
Engineer
Tianjin Import and Export Commodities
Inspection Bureau of the People's
Republic of China
6, Pu Kou Dao, Hexi District,
Tianjin

CUBA

A. MARRERO
Comité Estatal de Normalización
Egido 610, c/Gloria y Apocada
Habana 1

CUBA (cont.)

J. CORDERO
Ministerio del Azúcar
23 No. 171 Ramra Plaza
Habana

Ms. L. SALGADO TERRY
Ministerio del Comercio Exterior
23 y P
Habana

E. SOTOLONGO
Ministerio de la Agricultura
Calle 14 No. 515, Habana

S. VERGARA
Comité Estatal de Normalización
Egido 610 c/Gloria y Apodaca
Habana 1

CZECHOSLOVAKIA
TSCHECOSLOVAQUIE
CHECOSLOVAQUIA

J. BARVIR
Eng. Chem.
State Inspection of Agricultural and
Food Industry Products
J. Plachty 16,
151 18 Praha 5 - Smichov

J. KALAS
Chemist
State Inspection of Agricultural and
Food Industry Products
Podjavorinskej 4,
89101 Bratislava

J. LACINY
Chemist
State Inspection of Agricultural and
Food Industry Products
J. Plachty 16,
151 18 Praha 5 - Smichov

EGYPT
EGYPTE
EGIPTO

SHAMS ABOU-GHAZI
Director
Administration of Sanitary Chemistry
Central Health Laboratories
19, El Sheik Rihan Street
Cairo

FINLAND
FINLANDE
FINLANDIA

Ms. P.L. PENTTILA
Chief Inspector
National Board of Trade and Consumer
Interests
Haapaniemenkafu 48
SF 00530 Helsinki 53

FINLAND (cont.)

J. HIRN
National Veterinary Institute
P.O. Box 368
00101 Helsinki

Ms. H. WALLIN
Research Scientist
Technical Research Centre of
Finland
Food Research Laboratory
SF-02150 ESPOO

FRANCE
FRANCIA

Ms. Y. CASTANG
Inspecteur Général des Laboratoires
Secrétariat d'Etat à la Consommation
13, Rue St. Georges
Paris 9ème

Ms. C. SOULES
Directeur Central des Laboratoires
Secrétariat d'Etat à la Consommation
13, Rue St. Georges,
Paris 9ème

GERMANY, Ref. Rep. of
ALLEMAGNE, Rép. féd.
ALEMANIA, Rep. fed.

W. KRÖNERT
Professor
Head of Food Chemistry Division
Bundesgesundheitsamt
Postbox
D-1000 Berlin 33

J. RUESSING
Bundesministerium für Wirtschaft
c/o Landeseichdirektion NRW
73/77 Spichernstrasse
D-5000 Köln 1

Dr. SANITZ
Wiss. Oberrat
Bundesgesundheitsamt
D-1000 Berlin 33

GREECE
GRECE
GRECIA

N. KYRIAKIDIS
State Chemical Labs.
An Tsocha Ig. Ambelokipi
Athens

HUNGARY
HONGRIE
HUNGRIA

Dr. K. LINDNER
Professor
College of Commerce and Catering
Alkotmány u. 9-11
H-1054 Budapest

HUNGARY (cont.)

Dr. E. ALMÁSI
Professor
University of Horticulture
Ménesi ut 43-45
1118 Budapest

F. BÉKÉS
Technological University of
Budapest
Műgyetem rkp. 1-3
H-1111 Budapest

K. BEZSILLA
Senior Technical Officer
Hungarian Office for Standardization
Üllői ut 25
1091 Budapest

Ms. I. BOROS
Chemist
ÁÉK
Mester u. 81
1095 Budapest

B. BORSZÉKI
Senior Technical Officer
Hungarian Office for Standardization
Üllői ul 25
1091 Budapest

I. DRASKOVICS
Chief Ing.
Centre of Veterinary and Food
Control
PF 3
1453 Budapest

Dr. I. FÁBRI
Scientific Adviser
Centre of Veterinary and Food
Control
PF 3
1453 Budapest

Dr. L. GYÓRFI
Head of Department
Plant Protection and Agrochemistry
Centre
P.O. Box 127
Budapest

Dr. F. KULCSÁR
Head of Department
Centr. Inst. of Food Quality Control
Mester u. 81
1095 Budapest

Dr. P. MOLNÁR
Deputy Director General
Central Institute of Food Quality
Control
Mester u. 81
1095 Budapest

Dr. V. NAGEL
Main Engineer
ÁÉK
Mester u. 81
1095 Budapest

HUNGARY (cont.)

I. OLÁH
Head of Department
Hungarian Office for Standardization
Üllői ut 25
1091 Budapest

P. SZABÓ
Senior Officer of Standardization
Joint Company for The Canning
Industry
Gubacsi ut 19
1097 Budapest

Dr. Ms. V. TABAJDI
Chem. Eng.
Veterinary Food Control Institute
Mester u. 81
1095 Budapest

Dr. D. TÖRLEY
Professor
Technical University
Department of Biochemistry and Food
Technology
Műgyetem rkp. 3
1111 Budapest

Ms. M. UZONYI
Head of Laboratory
State Control Station for Dairy
Products
Bartók Bela ut 102
1113 Budapest

INDIA
INDE

P.K. DHINGRA
Director
Central Food Laboratory, Ghaziabad
and
Assistant Director General (PFA)
Directorate General of Health
Services, Nirman Bhawan
New Delhi 110001

O.P. KAPUR
Head
Analytical Quality Control Laboratory
at Central Food Technological
Research Institute
Mysore 570013

ISLAMIC REP. OF IRAN
REP. ISLAMIQUE D'IRAN
REP. ISLAMICA DEL IRAN

Ms. FALEH EMAMI SAID
Food and Drug Control Laboratory
Imam Khomeyni Ave. No. 31
Teheran

Ms. SIMIN HAFEZOSSEHI
Food and Drug Control Laboratory
Imam Khomayni Ave No. 31
Teheran

ISLAMIC REP. OF IRAN

TUTUNCHI-AFCHAR
Iran/Urmia
Ettare Standard
Teheran

PARWISIAN-MAHMOOD
Iran/Standard
Karj. B.
Teheran

IRELAND
IRLANDE
IRLANDA

T. O'TOOLE
Food Scientist
Department of Agriculture
Kildare Street
Dublin 2

JAPAN
JAPON

FUJITA
Director
Institute of Agricultural Products
Standardization and Inspection
4-7 Konan-4-Chome
Minatoku Tokyo

KOREA, Dem. People's Rep. of
COREE, Rép. dém. pop. de
COREA, Rep. dem. pop. de

PAK DU NAM
Vice Head
Food Institute
Pyongyang
D.P.R.K.

CHOE HYE GANG
Head of Laboratory
Food Institute
Pyongyang, D.P.K.R.

KAM CHAN BONG
Food Institute
Pyongyang, D.P.K.R.

MEXICO
MEXIQUE

Ms. J. GOMEZ FARIAS L.
Subdirector of Normalization and
Consultory
Secretaría de Salubridad y
Asistencia
Reforma y Lieja
México D.F.

E. SHOR
Secretaría de Salubridad y
Asistencia
Reforma y Lieja
México D.F.

NETHERLANDS
PAYS-BAS
PAISES BAJOS

W.J. DE KOE
Public Health Office
Dr. Reyersstraat 10-12
Leidschendam

W.G. DE RUIG
State Institute for Quality Control
of Agricultural Products
P.O. Box 230
6700 AE Wageningen

P.W. HENDRIKSE
Unilever Research Laboratory
P.O. Box 114
3130 AC Vlaardingen

H.A.M.G. VAESSEN
Rijks Instituut voor Volksgezondheid
en Milieuhygiene
P.O. Box 1
3720 BA Bilthoven

NORWAY
NORVEGE
NORVEGIA

O.R. BRAEKKAN
Professor
Institute of Nutrition
Directorate of Fisheries
ars Hellesq, 26
5000 Bergen

A.O. HOUGEN
Norwegian Food Research Institute
P.O. Box 50
N 1432 AS-NLH

Ms. R. STABEL
Section leader
Norwegian Codex Alimentarius Committee
P.O. Box 8139 Dep.
0033 Oslo 1

A. VIDNES
Head of Laboratory
SKVK
P.O. Box 6399
Etterstad
0604 Oslo 6

POLAND
POLOGNE
POLONIA

P. WAIDA
Chief
Ministry of Foreign Trade
Quality Inspection Office Laboratory
ul Czołgostow 8/12
Gdynia

S. TYSZKIEWICZ
Professor
Institute for Meat and Fat Industry
Rakowiecke 36
Warsaw

SPAIN
ESPAGNE
ESPAÑA

L. MIRO-GRANADA
Subdirector General de
Laboratorios Agrarios
Ministerio de Agricultura, Pesca y
Alimentación
Paseo Infanta Isabel, 1
28014 Madrid

Ms. R. SANCHIDRIAN
Subdirectora General de Control
y Análisis de la Calidad
Ministerio de Sanidad y Consumo
A.vda Cantabria s/n
Barrio Bareco - Barajas
42048 Madrid

J.M. VALLEJO
Jefe
Servicio de Inspección de la Calidad
Ministerio de Agricultura, Pesca y
Alimentación
Subdirección Defensa Contra Fraudes
Paseo Infanta Isabel, 1
28014 Madrid

SWEDEN
SUEDE
SUECIA

Dr. G. FUCHS
Ass. Prof.
National Food Administration
P.O. Box 622
S-75126 Uppsala

L. CARLSSON
Ass. Prof.
National Testing Institute
P.O. Box 857
50115 Boras

C.E. DANIELSON
Professor
KF
Stadgården 6
Stockholm

SWITZERLAND
SUISSE
SUIZA

P. ROSSIER
Head
Codex Alimentarius Section
Federal Office of Public Health
Haslerstrasse 16
CH 3008 Berne

Dr. R. GERBER
Section Head
Federal Office of Public Health
P.O. Box 2644
Haslerstrasse 16
CH 3008 Berne

SWITZERLAND (cont.)

P. VENETZ
Ingénieur chimiste
NESTEC SA
CH 1814 La Tour de Peilz

J.M. VIRIEUX
Adjoint Scientifique
Office fédéral de métrologie
3084 Wabern

THAILAND
THAÏLANDE
TAILANDIA

Ms. K. SINSAKUL
Director
Certification Division
Thai Industrial Standards Institute,
Ministry of Industry
Rama 6 Road
Bangkok 10400

Dr. A. KINGKATE
Chemist
Food Analysis Division
Dept. of Medical Sciences
Yod-Se
Gangkok 10100

Ms. S. PECHDEE
Chemist
Biological Science Division
Dept. of Science Service
Ministry of Science, Technology
and Energy
Rama VI Road
Bangkok 10400

C. PORNKUNTHAM
Chemist
Agricultural Chemistry Division
Department of Agriculture
Ministry of Agriculture and
Cooperatives
Bangkhen
Bangkok 10900

UNITED KINGDOM
ROYAUME-UNI
REINO UNIDO

Dr. R. WOOD
Head
Statutory Methods Department
Food Science Division
Ministry of Agriculture, Fisheries
and Food
65, Romney Street
London SW1A 3RD

R. SAWYER
Superintendent Food and Nutrition
Laboratory of the Government Chemist
Cornwall House
Stanford Street
London SE1 9NQ

UNITED KINGDOM (cont.)

C.D. USHER
Food Manufacturers Federation
6 Catherine Street
London WC2B 5JJ

UNION OF SOVIET SOCIALIST REPUBLICS
UNION DES REP. SOCIAL. SOVIETIQUES
UNION DE LAS REP. SOCIAL. SOVIETICAS

Dr. I. SKURICHINE
Professor
Head of Laboratory and Food
Chemistry
Institute of Nutrition
Academy of Medical Science
Ustinsku proesd 2/14
Moscow 109240

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

W. HORWITZ
Scientific Advisor
Centre for Food Safety and Applied
Nutrition
Food and Drug Administration HFF-7
200 C Street, S.W.
Washington, D.C. 20204

Ms. E. CAMPBELL
Supervisory Consumer Safety Officer
Division of Regulatory Guidance
Food and Drug Administration HFF-312
200 C Street, S.W.
Washington, D.C. 20204

Ms. G.E.S. COX
Chief Executive Officer
Cox and Cox Investments
12006 Auth. Lane
Silver Spring
Maryland 20902

Dr. W. DUBBERT
Asst. Deputy Administrator - Science
Department of Agriculture, Food
Safety and Inspection Service
Washington, D.C. 20250

E.R. ELKINS
Director of Chemistry Division
National Food Processors Association
1401 New York Av.
Washington, D.C. 20005

A.F. GROSS
Director
Analytical Services
Nabisco Brands, Inc.
7111 Route 208
Fair Lawn, N.J. 07410

P. KHAN
Vice President,
Quality Food Protection
Continental Baking Co.
P.O. Box 731
Tye, NY 10580

Dr. A.P. RAINOSEK
Chief
Quality Assurance Group
National Seafood Inspection
Laboratory
National Marine Fisheries Service
Pascagoula
Mississippi 39561

E. VADELUNG
Standards Spec.
National Bureau of Standards
Washington, D.C. 20204

J. WINBUSH
Division of Mathematics - HFF-110
Food and Drug Administration
200 C Street, S.W.
Washington, D.C. 20204

J.A. YERANSIAN
Corporate Research Manager
General Foods Tech. CTR.
250 North Street
White Plains
New York 10625

INTERNATIONAL ORGANIZATION
ORGANISATIONS INTERNATIONALES
ORGANIZACIONES INTERNACIONALES

ASSOCIATION OF OFFICIAL ANALYTICAL
CHEMISTS (AOAC)

W. HORWITZ
Scientific Advisor
Centre for Food Safety and Applied
Nutrition
Food and Drug Administration HFF-7
200 C Street, S.W.
Washington, D.C. 20204

COMMISSION DES COMMUNAUTES
EUROPEENNES (EEC)

Ms. O. DEMINE
Administrateur principal
200 Rue de la Loi
Bruxelles
Belgium

INTERNATIONAL DAIRY FEDERATION (IDF)

E. HOPKIN
Deputy Secretary General
41 Square Vergote
1040 Brussels
Belgium

INTERNATIONAL FEDERATION OF GLUCOSE
INDUSTRIES (IFG)

Dr. D.B. WHITEHOUSE
Technical Manager
Government and Regulatory Affairs
CPC(E)
R & D Centre
Havenstraat 84
B-1080 Vilvoorde
Belgium

INTERNATIONAL FEDERATION OF GROCERY
MANUFACTURING ASSOCIATIONS (IFGMA)

P. KHAN
Vice-President
Continental Baking Co.
P.O. Box 731
Rye, N.Y. 10580
USA

INTERNATIONAL FEDERATION OF FRUIT
JUICE PRODUCERS (IFFJP)

Dr. H. WOIDICH
Professor
Director,
Lebensmittelversuchsanstalt
Blaastrasse 29
A-1190 Wien
Austria

INTERNATIONAL ORGANIZATION FOR
STANDARDIZATION (ISO)

G. CASTAN
Directeur Politique et Orientation
AFNOR
Tour Europe Cedex 7
92080 Paris La Défense
France

K. KISMARTON
Technical Secretary of ISO/TC/34
Hungarian Office for Standardization
1091 Budapest Üllői ut 25
Hungary

K.G. LINGNER
Senior Technical Officer
ISO Central Secretariat
1, rue de Varembe
CH-1211 Geneva 20
Switzerland

E. NOUAT
AFNOR
Tour Europe Cedex 7
92080 Paris La Défense
France

H.W. SCHIPPER
Head
Department of Food and Agriculture
c/o Nederlands Normalisatie Instituut
P.O. Box 5059
2600 GB Delft
The Netherlands

INTERNATIONAL UNION OF PURE AND
APPLIED CHEMISTRY (IUPAC)

Dr. P. CZEDIK-EYSENBERG
Ketzergrasse 471
1238 Wien
Austria

NORDIC COMMITTEE ON FOOD ANALYSIS
(NMKL)

Ms. H. WALLIN
Research Scientist
Technical Research Centre of Finland
Food Research Laboratory
SF-02150 ESPOO

OFFICE INTERNATIONAL DU VIN (OIV)

W. KRÖNERT
Professor
Head
Food Chemistry Division
Bundesgesundheitsamt
Postbox
D-1000 Berlin 33

ORGANISATION INTERNATIONALE DE
METROLOGIE LEGALE (OIML)

E. VADELUNG
Standards Spec.
National Bureau of Standards
Washington, D.C. 20234

J.M. VIRIEUX
Adjoint scientifique
Office fédérale de métrologie
3084 Wabern
Switzerland

FAO/CODEX SECRETARIAT
SECRETARIAT FAO/CODEX
SECRETARIA FAO/CODEX

Dr. L.G. LADOMERY
Food Standards Officer
Secretary of the Codex Committee on
Methods of Analysis and Sampling
(CCMAS)
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

M. GIRARDI
Joint FAO/WHO Food Standards
Programme
FAO
00100 Rome, Italy

HUNGARIAN SECRETARIAT
SECRETARIAT HONGROIS
SECRETARIA HUNGARA

K. LAKAT
Secretariat of the Hungarian Codex
Committee
Hungarian Office for Standardization
Ulloi ut 25
H-1450 Budapest
Hungary

REPORT OF THE AD HOC WORKING GROUP OF EXPERTS ON ENDORSEMENT
OF METHODS OF ANALYSIS

1. The following Members constitute the Ad Hoc Working Group of Experts on Endorsement of Methods of Analysis:

AUSTRALIA	R. C. Norris
AUSTRIA	H. Woidich
CANADA	J.F. Lawrence
CHINA (People's Rep. of)	Zang Jing Hu Zheng-Zhi P. Guo Rui Hua
CUBA	L. Salgado Terry J. Cordero
CZECHOSLOVAKIA	J. Barvir J. Kalas J. Laciny
FINLAND	H. Wallin
GERMANY (Fed. Rep. of)	W. Sanitz
HUNGARY	I. Boros
INDIA	P.K. Dhingra
MEXICO	L.J. Gomez Farias
THE NETHERLANDS	W.G. de Ruig P.W. Hendrikse H.A.M.G. Vaessen
NORWAY	A. Vidnes
SPAIN	R. Sanchidrian L. Miro Granada
SWEDEN	G. Fuchs
SWITZERLAND	P. Venetz
UNITED KINGDOM	C.D. Usher
USSR	I. Skurichine
UNITED STATES OF AMERICA	W. Horwitz (Chairman) E.R. Elkins A. Gross J. Yeransian
EEC	O. Demine
FAO	N. Rao-Maturu (Rapporteur)
IDF	F. Hopkin
IFGMA	D.B. Whitehouse
IFJU	H. Woidich
ISO	L. Nouat H.W. Schipper
IUPAC(Food Chemistry Comm.)	P. Czedik-Eysenberg
NMKL	H. Wallin

2. The Working Group, under the Chairmanship of Dr. W. Horwitz, had the following tasks to perform:

- (a) to endorse the methods of analysis reviewed and updated by certain Codex Commodity Committees;

- (b) to review the revised methods of analysis of sugars, recommended by the United Kingdom Secretariat of the Codex Committee on Sugars in the light of comments from Governments and International Organizations with a view to endorse them;
- (c) to endorse methods of analysis in certain draft commodity standards;
- (d) to review Guidelines on information needed for the endorsement of methods of analysis in Codex standards; and
- (e) to consider the definition of the "Limit of Determination".

3. The Working Group had the following documentation before it:

- (a) CX/MAS 84/6-Part I, containing a report on progress made so far by Codex Committees which have recently reviewed methods of analysis in Codex standards as recommended by the Codex Committee on Methods of Analysis and Sampling. The paper contained reviews of methods of analysis carried out by the Codex Committee on Fats and Oils, and Processed Fruits and Vegetables and the Joint ECE/Codex Group of Experts on the Standardization of Fruit Juices;
- (b) CX/S 84/MAS, containing a review of methods of analysis of sugars carried out by the United Kingdom Secretariat of the Codex Committee on Sugars.
- (c) Room Documents 4, 6 and 7, containing comments on the above document from Governments and International Organizations;
- (d) CX/MAS 84/6-Parts II and III containing methods of analysis in draft Codex Commodity Standards;
- (e) CX/MAS 84/5 containing Guidelines on information needed for the endorsement of methods of analysis in Codex Standards; and
- (f) CX/MAS 84/7 on Consideration of the "Limit of Determination" in the light of Government comments.

4. The Working Group, at the outset, agreed to endorse only one "defining method" in instances where certain Codex Commodity Committees had agreed to adopt two or more "defining methods", which contradict the decision of the 15th Session of the Codex Alimentarius Commission, to the effect that, in determining compliance with the provision in the Codex Standards by the defining method, Governments should undertake to use only the Codex method or use another method verified against the Codex method.

5. The Group also agreed not to endorse and withdrew the existing endorsements of all Type IV methods, since, in the view of the Commission, the reliability of these methods has not yet been demonstrated and Type IV methods should, therefore, not be recommended as Codex methods.

6. The Group agreed to endorse the methods on the basis of the General Criteria for the Selection of Codex Methods of Analysis (Procedural Manual, 5th Ed., page 78). The Group also agreed that, wherever updated references to the "defining methods" were available, these should be provided to the Codex Commodity Committee concerned by the International Organizations interested in the methods of analysis. The Group requested Codex Commodity Committees to provide references to identical methods of Types II and III, wherever available.

7. The Group agreed that International Organizations which would like to have their methodology proposed should provide this Committee such information on collaborative studies that would be needed to assist this Committee in endorsing the methods of analysis proposed in Codex Commodity Standards such as indicated in Annex I to Appendix II.

8. The Group followed the following procedure in endorsing the methods of analysis in Codex Commodity Standards:

- (a) For Type I methods to endorse the method if no problems are foreseen;
- (b) For Types II and III methods to endorse the methods if the methods satisfy the General Codex Criteria and also if the results of collaborative studies are available; and

- (c) In the absence of results of collaborative studies, to only temporarily endorse Types II and III methods, pending availability of such information from International Organizations which elaborated the methods. If no such information was forthcoming for two consecutive sessions of the CCMAS, the Committee would undertake a review based on supporting data available to it. In such cases, the Committee may request the information desired from trade associations and commercial companies who may have it as a part of their quality assurance programmes.

Endorsement of Methods included in Reviews carried out by the Codex Committees on Fats and Oils, Processed Fruits and Vegetables and the Joint ECE/Codex Group of Experts on the Standardization of Fruit Juices as contained in CX/MAS 84/6-Part I

9. The status of endorsement of the above methods is contained in Tables I - III.

Endorsement of methods included in Commodity Standards as contained in CX/MAS 84/6-Parts II and III

10. The Status of endorsement of the above methods is contained in Table IV.
11. The methods for White Chocolate (Cocoa Butter Confectionery) were not reviewed since they had already been reviewed at the last session of the Committee.

Edible Ices and Ice Mixes

12. The Working Group was informed that studies on methods of analysis of edible ices and ice mixes by IDF/ISO/AOAC as given below were in progress. The results were expected to be available only in 1986-87, when endorsement of the methods could be contemplated.

"Edible Ices and Ice mixes - Codex Standard 137-1981

<u>Requirement</u>	<u>Method Reference</u>	<u>Present Status</u>
8.3 Mass per unit volume	IDF Questionnaire 1480/E ISO/DP 6783	Method due for publication in 1986; Collaborative study scheduled for 1983
8.4 Total solids	IDF Standard 70: 1972 ISO 3728: 1977	Methods under revision; expected for publication in 1986/87
8.5 Fat	IDF Standard 116: 1983 ISO/7328	Collaborative study under investigation
8.6 Foreign fats in milk fat	-	Method still being developed; not expected for publication before 1987
8.7 Total protein	AOAC 16.314 ISO/DP 6737	Method under revision; not expected for publication before 1987
8.8 Phosphatase	AOAC 16.329	Method under revision; Expected for publication in 1986/7."

Collaborative studies carried out by Spain for the determination of sulphur dioxide, soluble solids and residual alcohol in vinegar

13. The Working Group agreed that it was impossible to achieve the precision reported and would like to have further information on conduct and calculation of the results. The endorsement was postponed.

Revision of Methods of Analysis Provisions in Codex Standards for Sugars

14. The Working Group was asked to consider the revised methods of analysis of sugars recommended by the United Kingdom Secretariat of the Codex Committee on Sugars as contained in document CX/S 84/MAS, in light of comments received from Governments and International Organizations, as contained in Room Documents 4, 6 and 7.

15. As the Codex Committee on Sugars had adjourned sine die in 1974, the revision of the methodology contained in sugar standards was being carried out by the United Kingdom Secretariat. Most of the methods of analysis related to sugars had been elaborated and published by the two International Organizations, ISO and ICUMSA.

16. The review by the United Kingdom Secretariat had been sent to Governments and International Organizations for comments by a Circular Letter and although the last date mentioned in the circular for receipt of comments was 31 July 1984, comments were still being received.

17. The Working Group expressed the view that the revised methodology prepared by the United Kingdom Secretariat could only be considered as a first draft, which should be modified in the light of comments received from Governments and International Organizations, which were quite extensive, and a second draft prepared. In preparing the second draft, consideration should be given to any inter-laboratory studies and any other information that may be available. A suggestion was made that information on results of collaborative studies as contained in document CX/MAS 84/5, be included.

18. The Representative of IDF agreed to provide the United Kingdom Secretariat some information on analysis of lactose.

19. The Working Group agreed that the Codex general methods for trace element determination in foods would not be suitable for sugars and that some relevant information on the subject may be obtained from Dr. J.P. Barrette of Canada who prepared a document on trace element analysis for the 13th Session of the CCMAS. The Working Group also agreed that the reviewed methods should not be in extenso as in CAC/RM Series but only by reference.

20. The Working Group expressed its appreciation to Dr. Roger Wood of the United Kingdom who had prepared the paper on the revision of methods of analysis in Codex Standards for Sugars on behalf of the United Kingdom Secretariat and agreed to assist him in whatever way possible in the preparation of the second draft.

Recommendation for a checklist of information required to evaluate methods of analysis submitted for endorsement to the Codex Committee on Methods of Analysis and Sampling

21. The document on the subject, CX/MAS 84/5, had been prepared by Dr. W. Horwitz of the USA as a follow up to recommendations of the 13th Session of the Committee that the delegation of the USA, in collaboration with the Secretariat should prepare a discussion paper which identified the critical information necessary to evaluate methods of analysis submitted for endorsement. The document provided an explanation of the various items listed for submission and an example of a report format.

22. The Working Group made some constructive comments on the way of expressing outliers, harmonizing the use of symbols for precision parameters and preference for one way analysis of variance. Dr. Horwitz was appreciative of the comments received from the Working Group and agreed to revise his present paper in the light of the comments. This has been appended to the Report of the Working Group. The paper could be revised in the light of further comments. (See Annex I to this Appendix).

23. The Working Group was unanimous in agreement that the information that was sought, if made available, would considerably expedite its task in endorsing methods of analysis. The Working Group however expressed concern that results of collaborative studies may not always be available, and even if available, difficult to analyse by the Commodity Committee recommending the standards, since the expertise required may not always be available.

Also such a task, which was quite time consuming, cannot be undertaken by the Codex Secretariat. The Working Group expressed the view that the International Organizations that would like their methods of analysis adopted by Codex should be responsible for assembling all the information required, and making it available to the Codex Committee on Methods of Analysis and Sampling.

Limit of Determination

24. The Working Group reviewed document CX/MAS 84/7 and a Room Document prepared by the delegate of the USSR. The delegate of the USSR pointed out the existence of three concepts for the limit of determination. He concluded that a method which met the safety specifications of the Codex should be used. The Working Group agreed with this conclusion. The Working Group also agreed to use the term and concept "limit of determination" in Codex specifications. In view of time limitations, discussion of how to determine the limit of determination had to be deferred.

TABLE I

CONSIDERATION OF REVISED METHODS OF ANALYSIS FOR CODEX STANDARDS FOR FATS AND OILS AND THEIR CLASSIFICATION ACCORDING TO THE CCMAS SCHEME

No.	Method Title	Standards in which cited (CODEX STAN)	Method Proposed	Codex Classification	Status of endorsements	Comments
1.	Relative Density	20-31, 34 &) new veg. oils)	CAC/RM 9-1969	II	E	
2.	Relative Density	33)				
3.	Refractive Index	20-31, 33, 34 & new veg. oils	IUPAC 6th Ed. (1979) 2.102	II	TE	
4.	Saponification Value	20-31, 33, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.202 Sections 1-4.6 and ISO-3657	I	E	
5.	Iodine value (Wijs Method)	20-31, 33, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.205 & ISO-3961	I	E	
6.	Unsaponifiable Matter (Diethyl Ether)	20-31, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.401, 1-5	I	E	
7.	Unsaponifiable Matter (Light Petroleum)	33	IUPAC 5th Ed(1966) II D 5.1, 5.2	I	E	

TABLE I (contd.)

No.	Method Title	Standards in which cited (CODEX STAN)	Method Proposed	Codex Classification	Status of endorsement	Comments
8.	Acid Value	19-31, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.201, 1-4	I	E	<u>1/</u>
9.	Free Acidity	33	IUPAC 6th Ed(1979) 2.201, 1-4, 6	I	E	<u>1/</u>
10.	Peroxide Value	19-31, 33, 34 & new veg.oils	IUPAC 6th Ed(1979) 2.501 & ISO-3960	I	E	
11.	Matter Volatile at 105°C	19-31, 33, 34 new veg.oils & minarine	IUPAC 6th Ed(1979) 2.601 & ISO-662	I	E	
12.	Insoluble Impurities	19-31, 33, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.604 & ISO 663	I	E	
13.	Soap Test (Quantitative)	19-31, 34 & new veg. oils	Present Method	I	E	
14.	Soap Test (Qualitative)	33	Present Method	I	E	
15.	Iron Content	19-32, 34, new veg. oils & minarine	AOCS Ca 15-1976	IV	NE	<u>2/</u>
16.	Copper Content	19-32, 34, new veg. oils & minarine	AOAC(1980) XIII 25.095, 25.096, 25.047, 25.048	IV	NE	<u>2/</u>
17.	Lead Content	19-32, 34, new veg. oils & minarine	AOAC(1980) XIII 25.095, 25.096, 25.064, 25.065, 25.067	IV	NE	<u>2/</u>
18.	Arsenic Content	19-32, 34, new veg. oils & minarine	AOAC(1980) XIII 25.006-008, 012-013	II	TE	
19.	Prep. of fatty acid methyl esters	20-31, 33, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.301 & ISO-5509	II	TE	
20.	Analysis by GLC of fatty acid methyl esters	20-31, 33, 34 & new veg. oils	IUPAC 6th Ed(1979) 2.302 & ISO-5508	II	TE	
21.	Peanut Oil Test(Evers)	21	Present Method	I	E	
22.	Peanut Oil Test(Renard)	21	AOAC(1980) XIII 28.113	I	E	
23.	Halphen Test	22	Present Method	I	E	
24.	Cottonseed Oil Test	33	Present Method	I	E	
25.	Crismer Value	24 & LEAR Standard	Present Method	I	E	
26.	Sesame Oil Test(Baudoin)	26	Present Method	I	E	

E: Endorsed

TE: Temporarily Endorsed

NE: Not Endorsed

1/ Acid value and free acidity determine the same parameter and identical methods of analysis have been cited. Perhaps trade practices require the expression of the same parameter in different terms.

2/ Not endorsed since they are Type IV methods. ISO/IUPAC collaboratively tested methods of analysis based on direct ingestion graphite-furnace atomic absorption will soon be available.

APPENDIX II (contd.)

TABLE I (contd.)

No.	Method Title	Standards in which cited (CODEX STAN)	Method Proposed	Codex Classification	Status of endorsements	Comments
27.	Sesame Oil Test (Villa-vecchia)	26	Present Method	I	E	
28.	Sesame Oil Test A and B	33	Present Method	I	E	
29.	Titre	28-31	IUPAC 6th Ed(1979) 2.121	I	E	
30.	Milk Fat Content	32, minarine	Present Method	I	E	
31.	Fat Content	32, minarine	IUPAC 6th Ed(1979) 2.801 Sections 5 & 6	I	E	
32.	Water Content	32	Present Method	I	E	
33.	Vitamin A Content	32, minarine	AOAC(1980) XII 43.001-007	II	TE	
34.	Vitamin D Content	32, minarine	AOAC(1980) XII 43.195-208	II	TE	
35.	Vitamin E Content	32, 33, minarine	IUPAC 6th Ed(1981) 2-404	II	TE	
36.	Sodium chloride Content	32, minarine	Appendix IV ALINORM 79/23	II	E	
37.	Bellier Index	33	Present Method	I	E	
38.	Semi-siccative Oil Test	33	Present Method	I	E	
39.	Olive residue Test	33	Present Method	I	E	
40.	Teaseed Oil Test	33	Present Method	I	E	
41.	Specific Extinction	33	Present Method, IUPAC 2.505 and ISO 3656	I	E	<u>1/</u>
42.	Fatty acids in position 2.	33	IUPAC 6th Ed (1979)2.210	II	TE	
43.	Sterols	33 and LEAR Standard	IUPAC 6th Ed (1979)2.403	II	TE	
44.	Allyl isothiocyanate content	34	Present Method	II	TE	
45.	Reichert Value	Coconut, palm kernel & babassu oils	IUPAC 6th Ed (1979)2.204 1-7, 8.1, 9, 10	I	E	
46.	Polenske Value	Coconut, palm kernel & babassu oil	IUPAC 6th Ed (1979)2.204 1-7, 8.2, 9, 10	I	E	
47.	Erythrodiol Content	Grapeseed oil	-	II	NE	<u>2/</u>

E: Endorsed

TE: Temporarily Endorsed

NE: Not Endorsed

1/ Endorsed on the assumption that all the methods are identical. If the methods are not identical, the Commodity Committee should retain only the one it prefers and delete the others.

2/ IUPAC Collaborative study will soon be available.

TABLE II

CONSIDERATION OF REVISED METHODS OF ANALYSIS IN
CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES

Parameter to be measured	Method	Type of method	Status of endorsement	Comments
(1) Drained weight	Codex method 1 (CAC/RM 36-1970)	I	E	
(2) Drained weight	Codex method 2 (CAC/RM 37-1970)	I	E	
(3) Drained weight, washed	Codex method (CAC/RM 44-1972)	I	E	
(4) Alcohol-insoluble solids	Codex method (CAC/RM 47-1972)	I	E	
(5) Mineral impurities(sand)	Codex method (CAC/RM 49-1972)	I	E	
(6) Mineral impurities in raisins(sand test)	Codex method (CAC/RM 51-1974)	I	E	
(7) Mineral oil	Codex method (CAC/RM 52-1974)	II	E	<u>1/</u>
(8) Moisture in raisins	Codex method (CAC/RM 50-1974)	I	E	
(9) Moisture in pistachio nuts	AOAC(1980) 13th Ed 27.005	II	TE	
(10) Proper fill (in lieu of drained weight)	Codex method (CAC/RM 45-1972)	I	E	
(11) Water capacity of containers	Codex method (CAC/RM 46-1972)	I	E	
(12) Calcium	Codex method (CAC/RM 38-1970)	II	E	<u>1/</u>
(13) Sorbitol	Codex method (CAC/RM 53-1974)	II	E	<u>1/</u>
(14) Mould Count	AOAC(1980) 13th Ed 44.096	I	E	
(15) Soluble solids by means of refractometer expressed as degrees Brix (mass units as expressed by IUPAC)	AOAC(1980) 13th Ed 31.011 Solids by means of refractometer or ISO 2173 Determination of Soluble Solids Content - refractometer method	I	E	
(16) Salt (NaCl)	AOAC(1980) 13th Ed 32.025-32.030	II	E	<u>1/</u>
(17) Mineral impurities	AOAC(1980) 13th Ed 44.091	I	E	<u>2/</u>
(18) Salt content of brine (table olives and pickled cucumbers)	AOAC(1980) 13th Ed 32.025-32.030	II	E	<u>1/</u>
(19) Acidity of brine (Table Olives)	Codex method CODEX STAN 66-1981, Section 9.1.3	II	TE	
(20) pH of brine(Table Olives)	Codex method CODEX STAN 66-1981, Section 9.1.4	II	TE	

E: Endorsed TE: Temporarily Endorsed

1/ Endorsed without evidence of collaborative studies since they are old and well tested methods.

2/ This method specifically refers to frozen fruits and vegetables. The Commodity Committee may provide the basis for the selection of this method.

APPENDIX II (contd.)

TABLE II (contd.)

Parameter to be measured	Method	Type of method	Status of endorsement	Comments
(21) Sulphur dioxide	AOAC(1980) 13th Ed 20.109-20.111	II	TE	
(22) Soluble solids(in jams and jellies)	AOAC(1980) 13th Ed 22.024 & 31.011	I	E	
(23) Total solids content (mature processed peas)	AOAC(1980) 13th Ed 32.010	I	E	
(24) Total acidity	AOAC(1980) 13th Ed 22.060	II	E	<u>1/</u>
(25) Volume fill(by displacement)of pickled cucumbers	Codex methods CODEX STAN 115-1981 Section 9.2.6	I	E	

E: Endorsed TE: Temporarily Endorsed

1/ Endorsed without evidence of collaborative studies since they are old and well tested methods.

APPENDIX II
ALINORM 85/23

TABLE III

CONSIDERATION OF REVISED METHODS OF ANALYSIS
IN STANDARDS FOR FRUIT JUICES

Parameter to be measured	Method	Type	State of endorsement	Comments
1) Taking of the sample and expression of results as m/m	IFJU Method No.1, 1968	I	E	<u>1/</u>
2) Test of fermentability	IFJU Method No.18,1974	I	E	<u>2/</u>
3) Determination of apparent viscosity	AOAC 22009-22011 (1980)	I	E	
4) Determination L-ascorbic acid	AOAC 43061-43064 (1980) IFJU Method No.17,1964	II IV	TE NE	<u>3/</u>
5) Determination of carbon dioxide	IFJU Method No.42,1966	II	TE	
6) Determination of essential oils	AOAC 22088, 22089, 19127, (1980)	I	E	<u>4/</u>
7) Determination of ethanol	IFJU Method No. 1968	II	NE	<u>5/</u>

TABLE III(contd.)

Parameter to be measured	Method	Type	State of endorsement	Comments
8) Determination of hydroxymethylfurfural	IFJU Method No.12, 1968	II	TE	
9) Determination of soluble solids	IFJU Method No.813,1968	I	E	
10) Determination of sugars	IFJU Method No.4, 1968	I	E	<u>6/</u>
11) Determination of total titrable acids	IFJU Method No.3, 1968	I	E	
12) Determination of volatile acids	IFJU Method No.5, 1968	I	E	
13) Determination of water capacity and fill of containers	CAC/RM 46-1972	I	E	<u>7/</u>
14) Determination of arsenic	AOAC 25012, 25013 (1980)	II	E	<u>8/</u>
	AOAC 25010, 25011	III	TE	
	AOAC 25A01-25A05	III	TE	
	IFJU Method No.47, 1973	IV	NE	
15) Determination of lead	AOAC 25016-26067 (1980)	II	E	<u>8/</u>
	IFJU Method No.14, 1964	III	TE	<u>9/10/</u>
16) Determination of copper	AOAC 25044-25048 (1980)	II	E	<u>8/</u>
17) Determination of zinc	AOAC 25150-25153 (1980)	II	E	<u>8/</u>
	AOAC 25A03-25A05 (1980)	III	TE	
18) Determination of iron	IFJU Method No.15, 1964	II	E	<u>8/</u>
19) Determination of tin	AOAC 25136-25183 (1980)	II	E	<u>8/</u>
20) Determination of sulphur	IFJU Method No. 1968	II	E	
21) Determination of mineral impurities in insoluble hydrochloric acid	AOAC 30008 (1980)	I	E	

E: Endorsed

TE: Temporarily Endorsed

NE: Not Endorsed

1/ Provides a system for calculation.

2/ The Codex Commodity Committee should identify those small fruits for which this test is not valid. The method is also not suitable for citrus juices because of the presence of ethereal oils which inhibit fermentation.

3/ Not endorsed since it is a Type IV method.

4/ The Codex Commodity Committee may adopt only one 'Type I' method. If the Commodity Committee prefers another method, it should identify the defining method to be included in the standard.

5/ The method is being amended presently. The CCMAS awaits developments before endorsing.

6/ The method determines "total sugars" and not "added sugar".

7/ The Commodity Committee may include as Type I method the method published in the Almanach of the Canning, Freezing and Preserving Industries, 55th Ed 1970, pp.131-132. If that method is identical to CAC/RM 46-1972.

8/ Endorsed in the absence of results of collaborative studies since this method is a well tested method.

9/ If methods are required for determining very low levels of lead, methods recommended for condensed milks should be tried.

10/ Suggestion has been made by the delegate from the USSR that polarographic methods should be considered.

TABLE IV

CODEX COMMITTEE ON FOOD ADDITIVES

Product	Codex Step/Standard	Provision	Method	Codex Reference	Type	Status	Comments	
<u>DRAFT STANDARD</u>								
Food grade salt (ALINORM 83/12A, XI, p86)	Held at Step 8	8.2 Sodium chloride	Given in standard	ALINORM 83/12A XI, p88		TE	<u>1/</u>	
		8.3 Insoluble matter	ISO 2479-1972	"		TE	<u>1/</u>	
		8.4 Sulphate	ISO 2480-1972	"		TE	<u>1/</u>	
		8.5 Halogens	ISO 2481-1973	"		TE	<u>1/</u>	
		8.6 Calcium and magnesium	ISO 2482-1973	"		TE	<u>1/</u>	
		8.7 Potassium	ECSS/SC 183-1979 (volumetric method) or ECSS/SC 184-1979 (AA method)	"		TE	<u>1/</u>	
		8.8 Loss on drying	ISO 2483-1973	"		TE	<u>1/</u>	
		8.9 Copper	ECSS/SC 144-1977	"		TE	<u>1/</u>	
		8.10 Arsenic	ECSS/SC 311-1982	"		TE	<u>1/</u>	
		8.11 Mercury	ECSS/SC 312-1982	"		TE	<u>1/</u>	
		8.12 Lead	ECSS/SC 313-1982	"		TE	<u>1/</u>	
		8.13 Cadmium	ECSS/SC 3140-1982	"		TE	<u>1/</u>	
		<u>CODEX COMMITTEE ON CEREALS, PULSES AND LEGUMES:</u>						
Wheat flour (ALINORM 85/29, II)	8	9.2 Moisture	9.2.1 ISO 712-1979)	ALINORM 85/29,II	I	E		
			ICC Stan.110/1)	"	I	E		
			9.2.3 AOAC(1980)14.004	"	III	NE	<u>2/</u>	
				9.2.4 AACC 44-15A	"	III	NE	<u>2/</u>
		9.3 Particle size(granularity)	9.3.1 AOAC(1980) 10.128-129	"	I	E		
			9.4 Ash	9.4.1 AOAC(1980)14.006	"	I	E	
				9.4.2 ISO 2 171-1980		III	NE	<u>2/</u>
				9.4.3 AACC 08-01		III	NE	<u>2/</u>

TABLE IV (contd.)

Product	Codex Step/Standard	Provision	Method	Codex Reference	Type	Status	Comments
CODEX COMMITTEE ON CEREALS, PULSES AND LEGUMES (contd.)							
		9.5 Fat acidity	9.5.1 AOAC(1980) 14.070-072	ALINORM 85/29,II	I	E	
			9.5.2 AAC 02-01A	"	III	NE	<u>2/</u>
		9.6 Protein	9.6.1 ICC 105/1	"	I	E	
			9.6.2 AOAC(1980) 2.055-057	"	III	NE	<u>2/</u>
			9.6.3 AAC 46-11	"	III	NE	<u>2/</u>
Maize(Corn) (ALINORM 85/29, III)	8	8.1 Moisture	8.1.1 ISO 6540 -1980	ALINORM 85/29,III	I	E	
			8.1.2 ICC 110/1	"	III	NE	<u>2/</u>
			8.1.3 AOAC (1980) 14.004	"	III	NE	<u>2/</u>
Whole maize(corn) meal (ALINORM 85/29,IV)	8	9.2 Moisture	9.2.1 ISO 712-1979 ICC 110/1	ALINORM 85/29,IV "	I I	E E	
			9.2.3 AOAC(1980) 14.004	"	III	NE	<u>2/</u>
			9.2.4 AACC 44-15A	"	III	NE	<u>2/</u>
		9.3 Granularity	9.3.1 AOAC(1980)10.128-129	"	I	E	
		9.4 Ash	9.4.1 AOAC(1980) 14.006	"	I	E	
			9.4.2 ISO 2171-1980	"	III	NE	<u>2/</u>
			9.4.3 AACC 08-01	"	III	NE	<u>2/</u>
		9.5 Protein	9.5.1 ICC 105/1	"	I	E	
			9.5.2 AOAC(1980) 14.026, 2.055-057	"	III	NE	<u>2/</u>
			9.5.3 AACC 46-11	"	III	NE	<u>2/</u>
		9.6 Crude fat	9.6.1 AOAC(1980) 14.067, 7.956	"	I	E	
			9.6.2 ISO 5986-1983	"	III	NE	<u>2/</u>
Degermed maize(corn) meal and maize(corn) grits (ALINORM 85/29, V)	6	As for whole maize meal	As for whole maize meal	ALINORM 85/29, V		E	
Certain pulses (ALINORM 83/29, VI)	5	8.1 Moisture	ISO-R665	ALINORM 83/29, VI		NE	<u>3/</u>

TABLE IV(contd.)

Product	Codex Step/Standard	Provision	Method	Codex Reference	Type	Status	Comments
<u>CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES</u>							
Cashew kernels <u>1/</u> (CX/PFV 84/14- erroneously numbered CX/PFV 84/4)	5	8.2.4 Moisture (Method I - rapid method)	Method given in draft Standard	CX/PFV 84/14,p6	I	NE	<u>2/</u>
		Moisture (Method II - defining method)		CX/PFV 84/14,p7	I	TE	<u>3/</u>
		Moisture (Method III- electrical conduc- tance method)		CX/PFV 84/14,p7	I	NE	<u>2/</u>
<u>CODEX COORDINATING COMMITTEE FOR AFRICA</u>							
Gari <u>1/</u> (ALINORM 85/28,III)	8	9.2 Determination of granularity	ISO 2591-1973 Test Sieving	ALINORM 85/28, III	I	E	
		9.3 Moisture	ISO 712-1979	"	I	E	
		9.4 Ash	ISO 2171-1972	"	I	E	
		9.5 Hydrocyanic acid	ISO 2164	"	II	E	
		9.6 Acidity	AOAC (1975) 14.064-065 and ISO/DIS 7305	"	I I	E NE	<u>2/</u>
		9.7 Crude fibre	ISO 5498-1981	"	II	NE	<u>4/</u>
		9.8 Proteins	ISO 1871-1975 AOAC(1975) 14.206(N x 5.7)	"	I I	NE E	<u>5/</u>
		9.9 Fat	ISO 7302	"	I	E	
		9.10 Extraneous vegetable matter	Method to be developed	"			
		<u>CODEX COMMITTEE ON FATS AND OILS</u>					
Olive oil (Amendments to above standard) <u>2/</u>	33 (1981)	8.20 Beta-sitosterol	IUPAC(1979) 2.403	ALINORM 83/17, VII	II	TE	
		8.21 Fatty acids at position 2	IUPAC(1979) 2.210	"	II	TE	

TABLE IV(contd.)

Product	Codex Step/Standard	Provision	Method	Codex Reference	Type	Status	Comments
<u>CODEX COMMITTEE ON FATS AND OILS(contd.)</u>							
Fats and Oils Standards in General <u>3/</u>	19-34 (1981) 123-135 (1981)	All methods cited in existing fats and oils standards		ALINORM 83/17, paras 70-74 and APP.IX		E	
<u>CODEX COMMITTEE ON VEGETABLE PROTEINS</u>							
Vegetable protein products (VPP) (ALINORM 85/30,IV)	5	9.2.1 Moisture	AOAC(1980) 14.002	ALINORM 85/30, IV	I	E	
		9.2.2 Crude protein	ISO 1871-1975 AOAC(1980) 2.057	"	I	NE	<u>5/</u>
		9.2.3 Ash	ISO 2171-1980	"	I	E	
		9.2.4 Fat	Method No.1 of CAC/RS72/74-1976		I	E	
		9.2.5 Crude fibre	AACC Method 37-17 (AACC - 1982)		I	NE	<u>6/</u>
		9.2.6 Solvent residues (Hexane)	DGF - Method B-II 8a(83) M Arens, U E Kroll, Fette-Seifen-Austrichmittel 85, 307/1983 or IUPAC-Method, A Prevot, J L Constille Rev Frac Corps Gras 28, 413 or S P Fore and H P Dupuy, J Am Oil Chem Soc 1972, 49, 129-31		IV	NE	<u>7/</u>
		9.2.7 Trypsin inhibitor	Methods to be identified				
		9.2.8 Heavy metals	"				<u>8/</u>
Soy protein products (ALINORM 85/30,V)	5	As for VPP above	As for VPP above	ALINORM 85/30, V		E	

TABLE IV(contd.)

Product	Codex Step/Standard	Provision	Method	Codex Reference	Type	Status	Comments
<u>CODEX COMMITTEE ON VEGETABLE PROTEINS (contd.)</u>							
Wheat gluten (ALINORM 85/30, VI)	5	9.2.1 Moisture	AOAC(1980) 14.002	ALINORM 85/30, VI	I	E	
		9.2.2 Protein	AOAC(1980) 7.021	"	I	E	
		9.2.3 Ash	AOAC(1980) 14.006	"	I	E	
		9.2.4 Ether extractable fat	AOAC(1980) 7.055	"	I	E	
		9.2.5 Crude fibre	AOAC(1980) 7.048	"	I	E	
		9.2.6 Extraneous matter	AOAC(1980) 44.052	"		NE	<u>9/</u>
		9.2.7 Denaturation of gluten	AACC Method 38-20 (AACC - 1962)	"	I	E	<u>10/</u>
		9.2.8 Heavy metals	Method to be identified	"		TBE	<u>8/</u>
<u>ECE/CODEX GROUP ON FRUIT JUICES</u>							
Fruit Juice Standards in General <u>1/</u>	44-49 -1981	All methods cited in existing fruit juice standards		ALINORM 85/14, paras 164-169 and APP X as revised by 14th Session of CCMAS		E	
	63,64 -1981						
	82-85 -1981						
	101 -1981						
	120-122-1981						
	134 -1981						
138,139-1983							
<u>CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES</u>							
Processed Fruits and Vegetables Standards in General <u>2/</u>	13-18 -1981	All methods cited in existing processed fruits and vegetables standards		ALINORM 85/20, paras 79-81 and APP VI as revised by 14th Session of CCMAS		E	
	38-40 -1981						
	42 -1981						
	55-62 -1981						
	66-68 -1981						
	78-81 -1981						
	99 -1981						
	115-116-1981						
129-131-1981							

TABLE IV(contd.)

Product	Codex Step/Standard	Provision	Method	Codex Reference	Type	Status	Comments
<u>CODEX COMMITTEE ON SUGARS</u>							
All the sugar standards <u>3/</u>	4-12 -1981 54 -1981 102 -1981	All methods cited in the existing standards		CX/S 84/MAS		NE	<u>12/</u>
<u>CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES</u>							
Table Olives		10.6 Tin	AOAC(1980) Interim Official 1st action 25.136-25.138	-	II	E	
		10.7 Lead	AOAC(1980) 25.061-15.067	-		NE	<u>11/</u>

- 1/ The CCFA, through its WG on Methods of Analysis and Sampling for Salt is requested to provide the Committee relevant information on 'type' of method and results of any collaborative study or studies carried out, together with reproducibility and repeatability performance.
- 2/ Since only one 'Type I' method is needed other methods suggested for the determination of the parameter were not endorsed.
- 3/ Only one method for determination of moisture, which is a 'Type I' method is needed. The defining method in the absence of the reference to the method was temporarily endorsed.
- 4/ The method provides for 5 modifications. The Commodity Committee should identify which modification is needed or propose alternative methods.
- 5/ This is a general method and hence has not been endorsed.
- 6/ The Committee would like to know why the Commodity Committee preferred the AACC method, when plenty of well tested methods elaborated by International Organizations, which can be used effectively for estimation of the parameter in the group of commodities are available.
- 7/ The Committee would like to have the principle of the method in order to designate correctly the 'type' of the method.
- 8/ The Commodity Committee may use the Codex general methods for analysis of heavy metals.
- 9/ The Committee would like to know the nature of the extraneous matter involved. The method only determines insect fragments.
- 10/ Detailed methodology is available for determination of the different fractions of wheat gluten.
- 11/ The method could not be endorsed in the absence of Codex requirement for lead in Table Olives.
- 12/ The methods in CX/S 84/MAS were not endorsed.

RECOMMENDATION FOR A CHECKLIST OF INFORMATION REQUIRED
TO EVALUATE METHODS OF ANALYSIS SUBMITTED TO THE CODEX COMMITTEE
ON METHODS OF ANALYSIS AND SAMPLING FOR ENDORSEMENT

Paragraph 52 of the report of the Thirteenth Session of the Codex Committee on Methods of Analysis and Sampling (CCMAS) (ALINORM 83/23) indicated that the delegation of the United States in collaboration with the Secretariat would prepare a discussion paper which identified the critical information necessary to evaluate methods of analysis submitted for endorsement. An outline of such a list was attached as ANNEX I to APPENDIX III, Report of the Ad Hoc Working Group on Endorsement of Methods of Analysis, of ALINORM 83/23. The ad hoc Working Group, in its review of methods of analysis submitted for endorsement, had noted that the availability of such a check list would be of value both to CCMAS in its task of endorsement of methods of analysis and to the Commodity Committees which submit the methods for endorsement. The CCMAS agreed that such a list would be valuable and further suggested that consideration be given to the development of appropriate criteria for acceptance.

The purpose of the present document is to provide a reorganized and slightly enlarged version of the Checklist of ANNEX I with an example and an explanation of the various items listed for submission in that annex. The development of criteria for acceptance of methods will have to wait for the completion of ongoing research in this area.

The original document was circulated as CX/MAS 84/5 March 1984. It was revised as a result of suggestions and discussions in the Working Group on Methods of Analysis and by the Committee and is now recirculated for further government comments.

TYPE OF INFORMATION REQUIRED FOR SUBMISSION BY THE CODEX
COMMODITY COMMITTEES TO THE CCMAS FOR CONSIDERATION OF
METHODS OF ANALYSIS FOR ENDORSEMENT

1. REPORT FORMAT	EXAMPLE
1.1 IDENTIFICATION INFORMATION	
1.1.1 <u>Responsible Codex Committee:</u>	Coordinating Committee for Europe
1.1.2 <u>Codex Standard and Status:</u>	Draft Codex Standard for Vinegar (at Step 8); ALINORM 83/19
1.1.3 <u>Analyte or property:</u>	Soluble Solids
1.1.4 <u>Codex Specification or Limit:</u>	Wine: Not less than 1.3 g/L/1% HOAc Other: Not less than 2.0 g/L/1% HOAc
1.1.5 <u>Method of Analysis:</u>	
(a) <u>Title and principle:</u>	"Solids"; Evaporation and drying at strictly defined conditions
(b) <u>Classification:</u>	Type I (Defining)
(c) <u>Bibliographic reference:</u>	AOAC(1980) 30.064 (13th edition) AOAC(1984) 30.063 (14th edition)
1.2. DESIGN AND RESULTS OF COLLABORATIVE STUDY SUPPORTING ENDORSEMENT OF THE METHOD	

- 1.2.1 Bibliographic Reference to Collaborative Study: Ministry of Agriculture, Fisheries, and Food, 65 Romney St., London SW1P 3RD. United Kingdom; Reference: FSF 764/31 OCT 1984
- 1.2.2 Design: 18 Laboratories; 8 formulated materials, each analyzed as blind duplicates
- 1.2.3 Material Identification and Composition (if known):
1. Vinegar
 2. Vinegar + 2 g/100 mL HOAc
 3. Vinegar + 0.5 g/100 mL NaCl
 4. Vinegar + 0.5 g/100 mL citric acid
 5. Vinegar + 2 g/100mL HOAc + 0.5 g/100 mL NaCl
 6. Vinegar + 2 g/100 mL HOAc + 0.5 g/100 mL citric acid
 7. Vinegar + 0.5 g/100 mL citric acid + 0.5 g/100 mL NaCl
 8. Vinegar + 2 g/100mL HOAc + 0.5 g/100 mL NaCl + 0.5 g/100 mL citric acid

Abbreviations used in following Table:

No.	Number
Lab(s)	Laboratory(ies)
sd	Standard deviation
RSD	Relative standard deviation (= Coefficient of variation)
r	ISO repeatability interval (2.83 X within-labs sd)
R	ISO reproducibility interval (2.83 X between-labs sd)
D	Dixon outlier at 95% CL
C	Cochran outlier at 95% CL
CL	Confidence level/Significance level

3. REFERENCES

- 3.1 Association of Official Analytical Chemists (1975) Statistical Manual of the AOAC. Available from AOAC, Suite 210, 1111 North 19th street, Arlington, VA 22209 USA, page 75.
- 3.2 International Organization for Standardization (1981) International Standard 5725. Available from International Organization for Standardization, Geneva, Switzerland, and National Standards Organizations. Section 13.
- 3.3 Reference 3.1, page 77.
- 3.4 Reference 3.2, section 12.
- 3.5 Reference 3.1, page 81, item (b).
- 3.6 Reference 3.2, section 3.1.

Table of Data for Soluble Solids in Vinegars 1-8

Item	1	2	3	4	5	6	7	8
1.2.4 No. of labs remaining after removal of outliers at 95% CL (or % outliers, type, and [lab no.])	18 (0)	18 (0)	16 (11%) (C,C) [7,17]	16 (11%) (C,C) [7,9]	16 (11%) (D,C) [8,17]	17 (6%) (C) [17]	16 (11%) (C,C) [6,15]	16 (6%) (C) [8]
1.2.5 Concentration of analyte	-	-	1.32	1.32	1.32	1.32	1.82	1.82
1.2.6 Average found, g/100 mL	0.82	0.815	1.28	1.31	1.30	1.27	1.80	1.79
1.2.7 Recovery, %	-	-	92	98	96	90	98	97
1.2.8 Precision parameters								
Within-laboratory: sd	0.040	0.052	0.021	0.021	0.032	0.028	0.018	0.018
RSD _o , %	4.9	6.4	1.7	1.6	2.4	2.2	0.98	0.99
r	0.11	0.15	0.06	0.06	0.09	0.08	0.05	0.05
Between-laboratory: sd	0.061	0.068	0.040	0.033	0.039	0.041	0.038	0.050
RSD _x , %	7.4	8.4	3.1	2.5	3.0	3.2	2.1	2.8
R	0.17	0.19	0.11	0.14	0.11	0.12	0.11	0.14

INTERPRETATION OF ITEMS 1.1.1 to 1.2.8

1.1 IDENTIFICATION INFORMATION

1.1.1 Responsible Codex Committee

The Codex Committee requesting the endorsement, for reference and referral.

1.1.2 Codex Standard and Status

A reference to the specific commodity item under consideration, its endorsement status, and a citation to its appearance in the Codex documentation.

1.1.3 Analyte or Property

The specific chemical component, constituent, or property which is to be measured and for which there exists a requirement for a limit or specification in the applicable standard.

1.1.4 Codex Specification or Limit

The specific specification, limit, tolerance, or guideline which is given in the standard and which provides the boundary between acceptable and unacceptable material.

1.1.5 Method of Analysis

(a) Title and Principle

A statement of the method of analysis which incorporates a summary of the principles of isolation and/or measurement.

(b) Limit of Determination (if needed)

To be defined.

(c) Classification (Type)

The method classification as defined in the Codex Alimentarius Commission Procedural Manual, Fifth edition, pp. 77-78:

Defining Methods	(Type I)
Reference Methods	(Type II)
Alternative Approved Methods	(Type III)
Tentative Methods	(Type IV)

(d) Reference to Source of Method of Analysis

Bibliographic literature citation, indicating where the method will be found in the scientific or technical literature or in a Codex document. The reference given should permit tracing back to original source documents discussing the application of the method to the analyte and commodity involved.

1.2. DESIGN AND RESULTS OF COLLABORATIVE STUDY SUPPORTING THE ENDORSEMENT OF THE METHOD

1.2.1 Bibliographic Reference to Collaborative Study

Citation to the published collaborative study as a literature reference, Codex document number, or to the national or international organization internal reference number, as applicable. Sufficient documentation must be given so that a librarian can obtain the referenced document directly from the journal, by interlibrary loan, or by a request to the organization responsible for its production.

ANNEX I to
APPENDIX II (contd.)

- 1.2.2 Design
The number of materials, laboratories, determinations, replicates, and tests used. If these vary from material to material, a separate line may have to be introduced in the table for the variable information.
- 1.2.3 Material identification and composition (if known)
If simple, the materials may be identified in the column heads; if complex, use number sequence as in example.
- 1.2.4 Outliers Removed
Report number of laboratories remaining after removal of outliers and/or percent of outliers which had to be rejected in order to obtain the precision parameters reported in 1.2.8 and the outlier tests used. The commonly used tests for rejection of outliers are the Dixon (D) test for extreme values, 3.1, 3.2. and the Cochran (C) test for extreme variance, 3.3, 3.4. If no outliers were rejected, report 0. Ordinarily, rejecting more than 20% of the data is considered excessive. Indicate identification number(s) of laboratories removed in order to detect a consistent systematic bias on the part of any of them. Also indicate CL used in outlier tests for rejection of data, if other than 99%. Both AOAC and ISO currently reject outliers at a probability level greater than 99%. In the example, outliers were rejected at the 95% CL.
- 1.2.5 Concentration of Analyte
If known or assumed. If it is the same throughout, it may be incorporated into the material identification, 1.2.3.
- 1.2.6 Average Found and Units
Give the average value found for each material, indicating the units in the row heading. If the number of replicates reported by each laboratory was not the same, use the average of each laboratory for averaging to avoid weighting of results.
- 1.2.7 Recovery
Report percent recovery, if amount of analyte present is known or assumed.
- 1.2.8 Precision Parameters
(a) Repeatability (Within-laboratory)
Standard deviation, in the same units as the average
Relative standard deviation (repeatability standard deviation X 100/average found)
Interval (2.83 X repeatability standard deviation)
- (b) Reproducibility (Between-laboratory, including within-)
Standard deviation, in the same units as the average
Relative standard deviation (reproducibility standard deviation X 100/average found)
Interval (2.83 X reproducibility standard deviation)

The standard deviations must be obtained material by material. The relative standard deviations are usually the most informative precision parameters in food analysis because it is often constant over a wide range of concentrations. It is important to recognize that the RSD between-laboratories is not obtained by calculating the standard deviation of all the data from a material (except when only single determinations are performed); it must be obtained by a "one-way analysis of variance," as demonstrated in the Steiner portion of the AOAC Statistical Manual, 3.5 or ISO 5725, 3.2, section 7.2(b).

The repeatability and reproducibility intervals indicate how well an analyst should check himself (r) and another analyst in another laboratory (R), both in absolute units, with 95% probability. These parameters, however, are usually concentration dependent, so if the expected concentration varies over a wide range in the study, the parameters must be associated with the corresponding average concentration, material by material, 3.2, section 3.

2. NOTES

(Additional information, exceptions, and reasons for not following the recommendations.)

- 2.1 Reference to same method endorsed for other Codex Standards.
- 2.2 If a Codex method is available for this analyte or property for a different commodity and this method is not recommended for the commodity standard under consideration, give the reasons for not using the previously used method and for using a different method for this commodity or concentration level.
- 2.3 If a general Codex method is available for this analyte or property and it is not used in this standard, give the reasons for not using the general method.
- 2.4 Give reasons for any modifications of the previously used or endorsed method for other commodities or of the general method.

3. REFERENCES

See Page 35.

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REPORT OF THE AD HOC WORKING GROUP ON SAMPLING

1. The Ad Hoc Working Group on Sampling met during the 14th Session of the Codex Committee on Methods of Analysis and Sampling. It consisted of 33 members who met under the Chairmanship of Dr. Roger Wood (United Kingdom) with Mr. Paul Khan (USA) acting as Secretary and Dr. L.G. Ladomery (FAO Secretariat) in attendance.

2. The Working Group was charged with the examination of various documents, and in particular:

CX/MAS 84/8 - Application of the General Principles for the Establishment or Selection of Codex Sampling Procedures;

CX/MAS 84/9 - Definition of Terms used in Sampling;

CX/MAS 84/10 - Endorsement of Provisions for Sampling in Codex Standards;

and

CX/MAS 84/12 - Sampling Procedures for Contaminants in Codex Standards

3. Inter-session Working Group on Sampling

It was agreed that an Inter-session Working Group on Sampling would be established and be formed by all the members of the Ad Hoc Working Group. A list of the members of the Inter-session Working Group is given as Annex I. It was also agreed that Dr. Wood would act as coordinator for the Group and that various items of interest should be referred to that Inter-session Working Group for its consideration; such items will be described later in this Report.

CX/MAS 84/8: Application of the General Principles for the Establishment or Selection of Codex Sampling Procedures

4. The above document was discussed in detail by the Working Group and the following initial conclusions were reached:

- (a) There would be no changes to pages 1 and 2;
- (b) Page 3, paragraph 3.1: an example would be added to "attribute" so that the wording under the "Type of sampling Plan" heading would become "Attribute" (e.g. as in CAC/RM 42-1969);
- (c) Page 3, paragraphs 3.2 and 3.3: these two paragraphs dealing with compositional criteria would be combined;
- (d) Page 3, paragraph 3.4: delete "to be developed by Codex" given in the "Type of Sampling Plan" heading and replace by "Sampling plan in agreement with ALINORM 83/23, Appendix V".
- (e) Page 4 would require no changes;
- (f) Page 5, the second sentence in the first full paragraph: delete "a variables plan" and replace by "the variables plan given in Appendix II";
- (g) Page 5: there was discussion on the relative efficiencies of the attributes and variables sampling plans when small sample numbers were being considered. However, no change was made in this text following this discussion.
- (h) Page 6, second paragraph of 6.5, last sentence: it was agreed that this last sentence form a new third paragraph in 6.5 and start "Note: one consequence of the variables system.....". This was to highlight the information contained in the sentence;
- (i) Page 6, reference 8.1: amend date to 1984;
- (j) Page 6, reference 8.2: replace by equivalent ISO reference if available;

- (k) Page 6, reference 8.3: replace by equivalent ISO reference: ISO 3951:1981;
- (l) Appendix I: Definitions: It was agreed that the headings of the sampling vocabulary and definition of terms given in CX/MAS 84/8, Appendix I, would be maintained but that the description of each term would be taken from the equivalent definition given in ISO/DIS 7002 (see CX/MAS 84/9) with the following modifications:

<u>(m) Listing of definition given in Appendix I, CX/MAS 84/8</u>	<u>Amendment to text of ISO/DIS 7002 agreed</u>
1. Acceptable quality level	After variants, add, in parentheses (defective items and defects per 100 units, etc).
2. Acceptance number	After variants, add, in parentheses (defective items and defects per 100 units, etc).
5/6. Bulk and blended bulk samples	Use text given for bulk sample for both cases.
12. Inspection level	Maintain description given in CX/MAS 84/8.
13. Item	Maintain description given in CX/MAS 84/8.
21. Rejectable quality level	Add description given in CX/MAS 84/8 to that given in ISO/DIS 7002.
25. Sampling plan	Maintain description given in CX/MAS 84/8.
26. Standard deviation	ISO/DIS 7002 descriptions of "standard deviation" and of "variance" are to be combined in the description of "standard deviation" in the revision of CX/MAS 84/8.

- (n) It was agreed that a definition of "acceptability constant" should be included in the Appendix; and

- (o) Appendix II: Description, Formulae and Numerical Values to be used in Codex Sampling Plans: It was agreed that the formulae given for 'lot acceptance' with variables plans with unknown standard deviation be checked, the figures given in the tables be confirmed and that the letter to denominate "acceptability constant" in Table 4 be changed from "C" to "K".

5. The Chairman of the Working Group was requested to include in the body of CX/MAS 84/8 the opening statements that he had made when introducing the document to the Plenary Session (see paras 36-38 ALINORM 85/23).

6. It was agreed that the document would be:

- (a) drafted by the Chairman in the light of the comments made by the Working Group, who would
- (b) send the re-draft to the inter-session Working Group on Sampling for comment and approval, and then
- (c) send the revised draft to the FAO Secretariat for distribution to Governments for comment under cover of a Circular Letter. That Circular Letter should indicate that this Committee is hoping that there would be not substantial amendments to the revised CX/MAS 84/8 document as the Notes are nearing finalization in the opinion of this Committee.

APPENDIX III(contd.)

CX/MAS 84/9: Definition of Terms used in Sampling
(Extract from ISO/DIS 7002)

7. The terms contained in the above document were briefly discussed. It was agreed that the comments outlined in para 4(e) of this report should be transmitted to the ISO Secretariat. It was agreed that no comments on the remaining terms contained in CX/MAS 84/9 needed be made.

It was noted that the closing date for comments on ISO/DIS 7002 to ISO had been extended to March 1985 and that ISO would welcome comments by interested parties who were not necessarily members of ISO.

CX/MAS 84/10: Endorsement of Provisions for Sampling in Codex Standards

8. The Ad Hoc Working Group decided to postpone endorsement of the sampling procedures referred to in commodity standards until the provisions of CX/MAS 84/8 are further advanced and until it is clearly understood whether "attribute" or "variance" sampling plans would be applied.

It was specifically noted that not approving such proposed sampling plans now will not hold up the progress of standards advancing to the next Steps. It was believed to be more advantageous to examine the sampling methods in the commodity standards with the Commodity Committees concerned.

CX/MAS 84/14: Sampling Procedures for Contaminants in Codex Standards

9. The document produced by the CCFA and now being circulated to various Codex Committees illustrates various sampling plans schematically. The Ad Hoc Working Group noted the document, and particularly observed that the scheme identified as "2C" on page 6 of CX/MAS 84/12 was most like the plan commonly selected to obtain "average" samples for pesticide residues.

General Comments

10. Various general comments of importance were made by members of the Working Group during the course of discussion. In particular, the Group was reminded that the five aspects in relation to Sampling Plans given in CX/MAS 82/9 (September 1982) had not yet been resolved by the CCMAS.

These aspects are:

- (a) The role of Codex Sampling Plans generally (i.e. whether intended for use as 'referee' methods in dispute situations, 'reference' methods which have been based on sound statistical considerations or practical but acceptable methods reflecting current sampling practices, see para 16, ALINORM 81/23);
- (b) The meaning of two levels of sampling in the Codex Sampling Plans for Pre-packaged Foods (i.e., one lower, one higher rate of sampling);
- (c) The suitability of the amended Sampling Plans for destructive checking of compliance of lots or consignments moving in trade;
- (d) The types of provisions in Codex standards to which the Sampling Plans apply when attracted to Codex standards;
- (e) The wording to be used in Codex standards in order to ensure that the various Sampling Plans are used only for their intended purpose.

11. It was agreed that these comments would be included in the revised draft of document CX/MAS 84/8.

12. The delegation of Switzerland made reference to special variables plans that may be used for lots having non-normal distributions and indicated that it would be ready to

submit such sampling plans for discussion by the Inter-session Working Group. This offer was accepted by the Working Group.

ANNEX I to
APPENDIX III

INTER-SESSION WORKING GROUP

LIST OF PARTICIPANTS

Australia	-	-	R.C. Norris
Cameroon	-	-	J.A. Ngalani
Canada	-	-	W.P. Cochrane
Cuba	-	-	A. Marrero S. Vergara
Finland	-	-	J. Hirn P.L. Penttilä
France	-	-	Y. Castang C. Soules
Germany(Fed. Rep. of)	-	-	W. Krönert J. Ruessing
Hungary	-	-	L. Kórmendy M. Uzonyi
Mexico	-	-	E. Shor
Netherlands	-	-	W.J. de Koe H.A.M.G. Vaessen W.G. Ruig
Norway	-	-	O.R. Braekkan A.O. Hougen
Poland	-	-	S.M. Tyszkiewicz
Spain	-	-	J.M. Vallejo
Sweden	-	-	L. Carlsson
Switzerland	-	-	J.M. Virieux
United Kingdom	-	-	R. Wood 1/
United States of America-	-	-	P. Khan 2/ E. Campbell G.E.S. Cox W.H. Dubbert A.P. Rainosek E. Vadelund J.S. Winbush
IDF	-	-	E. Hopkin
IFGMA	-	-	P. Khan
ISO	-	-	G. Castan K.G. Lingner
Codex Secretariat	-	-	H.W. Schipper L.G. Ladomery

1/ Acted as Chairman of the Ad Hoc Working Group and will act as coordinator to the Inter-session Group.

2/ Acted as Secretary of the Ad Hoc Working Group.

RECOMMENDATIONS OF THE CCMAS CONCERNING ACCEPTANCE
BY GOVERNMENTS OF CODEX METHODS OF ANALYSIS 1/

(submitted to the Commission for adoption)

1. Defining Methods - TYPE I

Codex Defining Methods of Analysis - Type I - should be subject to acceptance by Governments just as are the provisions which they define and which form part of Codex standards. Full acceptance of a Codex defining method should mean the acceptance that the value provided for in a Codex standard is defined by means of the Codex method.

In determining compliance with the value in the Codex standard, Governments should use the Codex method especially in cases of disputes involving the results of analysis.

Non-acceptance of the Codex defining method or acceptance of Codex standards with substantive deviations in the Codex defining methods should be taken to mean acceptance of the Codex standard with specified deviation.

2. Reference Methods - TYPE II

The acceptance of Codex standards containing Codex Reference Methods of Analysis - Type II - should mean the recognition that Codex reference methods are methods the reliability of which has been demonstrated on the basis of internationally acceptable criteria. They should, therefore, be obligatory for use, i.e. subject to acceptance by Governments in disputes involving the results of analysis.

Non-acceptance of the Codex reference method or acceptance of Codex standards with substantive deviations in the Codex reference methods for use in disputes involving methods of analysis should be taken to mean acceptance of the Codex standard with specified deviation.

3. Alternative Approved Methods - TYPE III

The acceptance of Codex standards containing Codex Alternative Approved Methods of Analysis - Type III - should mean the recognition that Codex alternative approved methods are methods the reliability of which has been demonstrated in terms of internationally acceptable criteria. They should be recommended for use in food control, inspection or for regulatory purposes. Non-acceptance of a Codex alternative approved method should not constitute a deviation from the Codex standard.

4. Tentative Method - TYPE IV

Since the reliability of these methods has not yet been endorsed by the CCMAS on the basis of the internationally accepted criteria, it follows that they cannot be regarded as final Codex methods. Type IV methods may, eventually, become Type I, II or III methods with the resultant implications regarding the acceptance of Codex methods. Type IV methods should, therefore, not be recommended as Codex methods until their reliability has been recognized by the CCMAS. They may be included in draft Codex standards or in Codex standards provided their non-approved status is clearly indicated.

1/ See Procedural Manual of the Codex Alimentarius Commission, 5th Edition, for the definitions of these methods.

REPORT OF THE AD HOC WORKING GROUP ON ALTERNATIVE SAMPLING
PLANS FOR FISH BLOCKS

1. At the Fourteenth Session of the Codex Committee on Methods of Analysis and Sampling (CCMAS) Budapest, 26-30 November 1984, the Working Group was convened to consider the request for advice and guidance on alternative sampling plans for fish blocks (CX/MAS 84/11) submitted by the Sixteenth Session of the Codex Committee on Fish and Fishery Products (CCFFP).

2. The membership of the Working Group was as follows:

CANADA	W.P. COCHRANE
NORWAY	O.R. BRAEKKAN
	A.O. HOUGEN
USA	G.E.S. COX
	A.P. RAINOSEK (Chairman)
	J.S. WINBUSH

3. After a brief but detailed discussion of CX/MAS 84/11 and supporting material, the Working Group decided to continue its deliberations beyond the date of the Session to explore more completely and address the several considerations prompted by the economic sampling aspects of this commodity oriented product.

4. The Working Group agreed that written comments with recommendations directed at resolving the issue of alternative sampling plans for fish blocks would be submitted to the Chairman by March 1985. A summary of the comments and recommendations would be transmitted to the CAC Secretariat for review and appropriate action.

5. After the Working Group had met, W.S. de Koe of the Netherlands and a representative from the United Kingdom (to be named at a later date) offered to participate in the further work of the Working Group.

REPORT OF THE FIFTH INTER-AGENCY MEETING
(Budapest, 22 and 23 November 1984)

OPENING OF THE MEETING

1. The meeting was opened by Mr. K. Kismárton, Head of Department at the Hungarian Office for Standardization. In welcoming the participants, Mr. Kismárton conveyed wishes for a successful meeting from Mr. J. Marosi, Technical Director, who was unable to attend.

2. Referring to the work of the various Organizations which were attending the Inter-Agency Meeting (see Annex I to this Appendix) Mr. Kismárton emphasized the importance of agenda item 5 under which the meeting would decide on its terms of reference. Another important agenda item was the re-evaluation of existing methodology for the analysis of foodstuffs.

ELECTION OF CHAIRMAN

3. Following the suggestion by Mr. Kismárton, the Meeting unanimously elected Mr. G. Castan, Director of Standardization Policies of the French Association for Standardization (AFNOR).

APPENDIX VI(contd.)

APPOINTMENT OF RAPPORTEUR

4. Mr. K-G. Lingner, ISO Central Secretariat who had already acted as Rapporteur at the previous Inter-Agency Meetings was appointed.

ADOPTION OF THE AGENDA

5. The agenda was adopted subject to inclusion of two further items, one dealing with the action taken by the Secretariat of the Codex Committee on Methods of Analysis and Sampling in response to the results of the Fourth Inter-Agency Meeting. The second item related to the checklist of information required to evaluate methods of analysis submitted for endorsement by the Codex Committee on Methods of Analysis and Sampling.

TERMS OF REFERENCE AND MEMBERSHIP OF THE INTER-AGENCY MEETING

6. Participants were reminded of the decision taken at the previous meeting to give a permanent status to the Inter-Agency Meeting by establishing its terms of reference and membership. The proposed terms of reference circulated to the representatives of the various Organizations prior to the Meeting was the result of discussions between the Codex Secretariat, the Chairman of the Inter-Agency Meeting and the Rapporteur.

7. The meeting adopted the terms of reference as proposed subject to minor editorial amendment. Participants also agreed that meetings should be held in conjunction with the sessions of the Codex Committee on Methods of Analysis and Sampling. The Secretariat function should be assumed by the ISO Central Secretariat and the Chairman should be appointed for the duration of one meeting and the period between that meeting and the subsequent meeting. The terms of reference as adopted is given in Annex 2 of this Appendix.

8. The Meeting then examined the list of Organizations invited which had been distributed together with the Agenda. It was felt that, whilst there were many international or regional Organizations interested in the general subject of foodstuffs, only those Organizations should be invited which were interested in the development and standardization of methods of analysis and sampling. It was also noted that some of the Organizations invited to the present meeting had neither responded to the invitation nor had submitted reports on their activities of possible interest to the Inter-Agency Meeting. Consequently, the Meeting decided to delete EOQC, and IOOC from the list. The Rapporteur was requested to write to EEC, ISDI and OIV in order to find out whether these Organizations were interested to attend the Inter-Agency Meetings.

9. The representative of the CAC requested, and it was agreed that some Organizations in the Regions of Africa and Asia be invited to the next Meeting. He also mentioned that there was no need for separate invitations to FAO and WHO since the CAC Secretariat received all invitations and was represented at the Inter-Agency Meetings.

10. The Rapporteur drew attention to the established practice to issue invitations to the Headquarters of the respective Organizations or to other contact points officially notified to the Secretariat rather than to individuals associated with the work of the respective Organizations.

ACTION TAKEN BY THE CODEX SECRETARIAT IN RESPONSE TO THE RESULTS OF THE FOURTH INTER-AGENCY MEETING

11. The representative of the CAC informed the Meeting that, in its efforts to promote the development of analytical methodology, the Codex Committee on Cereals, Pulses and Legumes appreciated the collaboration between ISO/ICC and AOAC which facilitated the selection of methods required. He also said that the Codex Secretariat had been requested to circulate to all Codex Contact Points and International Organizations a list of methods to be developed which are required by the CAC. The list had not yet been finalized. Australia was providing the consultancy and facilities for preparation of a computerized list of all methods required (methods endorsed, pending, temporarily endorsed, needed, etc.).

12. As requested by the Representative of the Republic of Korea at the previous Session of the Codex Committee on Methods of Analysis and Sampling, the Codex Secretariat was also considering proposals for an extension of the list of invitees to the Inter-Agency Meeting.

INTERNATIONAL COOPERATION IN THE FIELD OF STANDARDIZED METHODS OF ANALYSIS AND SAMPLING

13. Under this agenda item, the Meeting considered various suggestions on how to achieve practical cooperation between the Organizations. It was felt that the exchange of information on current and planned work should be improved in order to avoid duplication of effort and to use the limited resources in the best possible way. The representative of AOAC stressed the importance of mutual attendance of meetings of the respective Organizations. In this context, it was noted that through direct liaison with the Technical Committees concerned, ISO associated all interested Organizations with its activities in the respective fields and that the joint work of IDF/ISO/AOAC in the field of dairy products was a good example of collaboration between interested International Organizations.

14. The Representative of IDF offered to prepare for the next Meeting, a brief document which would outline the various suggestions for improving the collaboration and the exchange of information between the Organizations attending the Inter-Agency Meetings. Furthermore, Participants were invited to send to the Secretariat any other information which they felt should be circulated for discussion.

15. The Representative of CAC said that the Codex distribution system could be made available in case wider circulation of the respective documents was required.

COLLABORATIVE TESTING OF METHODS OF ANALYSIS

16. The Chairman emphasized the importance of this agenda item in view of the requirements of methods to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

VALIDATION OF METHODS OF ANALYSIS AND SAMPLING

17. The Representative of AOAC briefly summarized the results of the recent AOAC/IUPAC Symposium on the harmonization of collaborative studies. He distributed a document containing recommendations which will shortly be submitted to the participants of the symposium.

18. The Meeting noted that IUPAC would be requested to undertake the standardization of symbols and terminology of collaborative analytical studies and that any other Organization particularly concerned with this subject would be invited to collaborate. In this context, Technical Committee ISO/TC 69 "Applications of Statistical Methods", was mentioned. This Committee had prepared International Standards on statistical terminology (ISO 3534) and guidance on collaborative studies (ISO 5725). The latter Standard was under revision taking into account proposals made by other Organizations.

19. The Representative of IDF wondered if, at a later stage, it was also intended to prepare documents which would provide guidance on collaborative studies in the field of microbiological examination. So far, priority had been given to collaborative studies in the field of chemical or physico-chemical analysis. The Meeting agreed that this was an important subject, which should be discussed further. Reference was also made to a Guide on the treatment of microbiological data which had been issued by NMKL.

PRACTICAL COOPERATION IN COLLABORATIVE TESTING

20. Following a suggestion by the Rapporteur, AOAC agreed to explore the possibility for establishing direct liaison with the Sub-Committees of Technical Committee ISO/TC 34 "Agricultural Food Products". This direct liaison would facilitate the exchange of information on current and planned collaborative studies and help to avoid duplication of effort in either Organization. It was noted that decisions relating to collaborative studies were recorded in the resolutions adopted by ISO Committees.

APPENDIX VI (contd.)

21. The Representative of AOAC offered to announce information on collaborative studies undertaken by other Organizations in the AOAC newsletter "The Referee". The Representative of the Codex Secretariat agreed to contact the editor of a newsletter issued by the Swedish National Food Administration. This newsletter could possibly be used for the world-wide dissemination of the relevant information on collaborative studies.

CERTIFICATION AND TESTING IN RELATION TO LABORATORY ACCREDITATION

22. The Chairman introduced a document which outlined the history, organizational framework and activities in the field of certification and laboratory accreditation. The work of the International Laboratory Accreditation Conference (ILAC) and that of two Council Committees of ISO (REMCO for reference materials and CERTICO for certification) was discussed.

23. The Rapporteur invited Organizations interested in the work of REMCO or CERTICO to contact the ISO Central Secretariat in order to obtain more detailed information. It was noted that AOAC had developed similar activities.

REPORTS BY SPECIALIZED ORGANIZATIONS ON METHODS OF ANALYSIS
REQUIRED BY THE CAC

24. Representatives of the various Organizations were invited to present brief reports on the relevant activities of their Organizations. Furthermore, the Rapporteur had distributed a document which listed the existing ISO Standards and drafts in the respective fields.

COCOA PRODUCTS AND CHOCOLATE

25. The Chairman of the OICC/AIFC Technical Committee had been unable to attend. He had submitted a list of the existing work, an activity report and a report on the 20th Session of the Technical Committee to the Secretariat.

26. In the absence of a Representative of OICC/AIFC, the meeting did not discuss the details of the information provided.

MILK AND MILK PRODUCTS

27. The Representative of IDF briefly referred to the work of the Joint IDF/ISO/AOAC Groups of Experts which were standardizing analytical methodology in the field of dairy products. This joint work resulted in publication of identical texts by the three Organizations which are referred to in the FAO/WHO Code of Principles concerning Milk and Milk Products.

EDIBLE ICES

28. The Meeting noted the work of the Joint IDF/ISO/AOAC Groups of Experts in this field.

FATS AND OILS

29. In the absence of a Representative of the Oils and Fats Section of IUPAC, the Rapporteur informed the Meeting that the standards and drafts listed in the ISO document had been prepared in close collaboration with IUPAC and other interested organizations. These ISO methods were technically identical with the IUPAC methods. Therefore, an increasing number of ISO methods was being referred to by the respective Codex Committees.

30. The Representative of the CAC emphasized the need for development of a method for the qualitative and quantitative determination of animal fats in mixtures of vegetable fats. This question had arisen in the Codex Coordinating Committee for Asia and was of particular importance to countries like India, where religious and regulatory considerations prohibited the use of animal fats in hardened fats.

31. It was recognized that, whilst the limit of detection of traditional methods of organic chemistry would not be sufficient for this purpose, the use of more advanced methodology and equipment might provide a reliable method.

FOODS FOR SPECIAL DIETARY USES

32. The Meeting noted the undesirable proliferation of methods for the determination of crude fibre at the international level.

33. The Representative of AOAC drew attention to the fact that many of the existing methods had not been collaboratively tested. The acceptance criteria for methods to be endorsed by the Codex Committee on Methods of Analysis and Sampling would not permit such methods to be endorsed. He also informed the Meeting that AOAC had adopted several methods for the determination of elements in infant foods and a method for the determination of dietary fibre which had been collaboratively studied.

FRUIT JUICES

34. In the absence of a Representative of IFJU, or a written activity report, no discussion took place under this agenda item.

PROCESSED FRUITS AND VEGETABLES

35. The Representative of the CAC mentioned that the Codex Committee on Processed Fruits and Vegetables had standardized all important products and had only included in the Standards requirements which are measurable. It had also reviewed the methods available which are to be examined by the Codex Committee on Methods of Analysis and Sampling.

36. The Representative of IDF informed the Meeting of the Joint IDF/ISO/AOAC work on the determination of sulphide in flavoured yoghurt.

PROCESSED MEAT PRODUCTS

37. The Representative of the CAC, referring to the work of the respective Codex Committees said that his Organization recommended the use of ISO methodology, where appropriate. However, results of a recent collaborative study on the determination of nitrate content in accordance with the method specified in ISO 3091 had shown a variability of the effectiveness of the cadmium column used.

38. AOAC had carried out a collaborative test with an enzymatic method for the determination of soya protein in meat products.

SUGARS

39. On behalf of the General Secretary of ICUMSA, who had been unable to attend, the Rapporteur gave a brief report on the relevant activities of that Organization. Three years ago, ICUMSA had presented proposals for methods which should replace the Codex Standards for Sugar Analysis. Unfortunately, these proposals had not been taken into account by the Codex Committee on Sugars in document CX/S 84/MAS circulated in May 1984. Therefore, in September 1984, ICUMSA had sent comments on this document to the Codex Committee together with an amended version of the previous proposals. This new version takes into account the results of the 18th ICUMSA Session held in 1982.

40. There had not been much progress on methods of analysis for powdered sugars. On the other hand, the Codex Standards for Sugar Analysis published in 1969 are known to be erroneous and impracticable in many parts. ICUMSA would appreciate being given the opportunity to comment on the proposed new texts.

41. A document containing ICUMSA's comments on document CX/S 84/MAS was distributed to participants.

STARCH HYDROLYSIS PRODUCTS

42. The Chairman introduced a document which had been prepared by ISO. He informed the Meeting that the methods prepared by ISO/TC 93 had been collaboratively tested in order to establish repeatability and reproducibility. In view of the needs of Codex, ISO/TC 93 was currently being reorganized. To prepare the future work of ISO/TC 93, AFNOR, as Secretariat, was studying methods for the determination of contaminants by AAS and for the rotative power.

APPENDIX VI(contd.)

43. It was noted that, whilst the AOAC methods proposed in 1980 satisfied the limits specified in the Codex Standards, the limit of detection of the present methods was more suitable for products on today's markets. Furthermore, for the determination of rotative power, the method of the European Pharmacopoeia based on the same principle as the current method selected by the Codex had been collaboratively studied satisfactorily. ISO/TC 93 was closely collaborating with ICUMSA.

44. The Representative of IFG welcomed the efforts towards reactivation of ISO/TC 93 and referred to the work of the Corn Refiners Association which had developed various methods for starch hydrolysis products.

45. AOAC was invited to explore the possibility for establishing liaison with ISO/TC 93.

CEREALS, CEREAL PRODUCTS, PULSES AND LEGUMES

46. The Representative of ICC introduced the document prepared for this Meeting. ICC was closely collaborating with ISO/TC 34/SC 4. Its principle tasks were the standardization of test methods and the establishment of close links between the results of scientific research and the practical work.

47. The Representative of ISO presented a survey of the work carried out by ISO/TC 34/SC 4. In the ensuing discussion, attention was drawn to the fact that the Codex Committee on Cereals, Pulses and Legumes had recently decided to adopt for the determination of particle size of flour the sieving method of AOAC using, however, metric sieves standardized by ISO.

48. The Representative of ISO regretted that the Codex Committee on Cereals, Pulses and Legumes had recently included references to methods prepared by national organizations in its documents. It was felt that wherever appropriate methodology developed by International Organizations existed, reference should be made to the relevant international documents.

MICROBIOLOGY

49. The Chairman introduced a document which outlined the activity of ISO/TC 34/SC 9 and ISO/TC 147/SC 4. Both Committees were closely collaborating and had established liaison with various International Organizations. New work recently included in the programme of ISO/TC 34/SC 9 related to collaborative studies in the field of microbiological analysis.

50. The Representative of IDF indicated that the specific methods for dairy products developed by the Joint IDF/ISO/AOAC Groups of Experts were largely aligned with the general methods prepared by ISO/TC 34/SC 9.

51. The Rapporteur drew attention to ISO 7676 which provide guidance on a standard layout for microbiological analysis.

MINERAL WATERS

52. The Rapporteur briefly outlined the work of ISO/TC 147 "Water Quality", which prepared methods of analysis for all types of water. Some of these methods were also applicable to mineral waters and may, therefore, be taken into account by the Codex Coordinating Committee for Europe in its work on the Regional Standard for Mineral Waters.

CONTAMINANTS

53. The Representative of IUPAC introduced a document which outlined the activity of the IUPAC Commission on Food Chemistry. This project review included work on food additives, inorganic and organic contaminants, mycotoxins and aquatic biotoxins.

54. The Representative of IDF indicated that a new Joint IDF/ISO/AOAC Group of Experts had started work on inhibitors and that a first draft was already available.

55. The Representative of the CAC mentioned a Consultation on Veterinary drugs which had discussed the possibility of establishing a new Codex Committee on residues of antibiotics and other residues in food.
56. The Meeting was informed that IUPAC had carried out a collaborative study on the determination of patulin. The poor reproducibility obtained had led to the decision to abandon the method. AOAC had taken a similar decision.
57. It was noted that various International Organizations, including ISO, had prepared methods for the determination of gossypol, aflatoxin B and zearalenone in animal feeding-stuffs which may present an interest to CAC, although these methods are not directly relevant to food products.
58. In relation to the subject of food additives, it was noted that the Joint FAO/WHO Expert Committee on Food Additives (JECFA) was studying composition and purity of food additives rather than methods of detection and determination of food additives in food-stuffs.
59. The meeting was informed that the Codex Coordinating Committee for Asia had discussed the need for methods of detection of irradiation and that methods were required for the determination of free fatty acids in fats extracted from French fried potatoes.
60. The meeting then discussed the need for methodology for the determination of food additives. It was recognized that methodology was available for existing types of food additives such as colours and antioxidants. However, differing national regulations hampered the development, at the international level, of general methods. It was agreed to further discuss this subject and to include it in the agenda of the next Inter-Agency Meeting.

STANDARDIZED TERMINOLOGY IN THE FIELD OF METHODS
OF ANALYSIS AND SAMPLING

61. Following discussion of the ISO Vocabulary presented to the Meeting which contained terms and definitions prepared by ISO/TC 69 "Applications of statistical methods" and of other ISO Technical Committees, the Meeting confirmed the need for further work in the field of terminology. Consequently, it was agreed to create a Working Group for which the AOAC would provide the Secretariat. The Group would develop a document on nomenclature, terms and definitions of sampling and analysis for the CAC based on the "ISO Vocabulary of terms used in analytical methodology and sampling" and the respective IUPAC document. The contact points for this study would be:

IUPAC	-	Prof. Krönert (arrangements to be made to cover the Analytical Division as well)
ISO	-	Mr. Lingner
CODEX	-	Dr. Horwitz (E) Dr. Cochrane (F)

The Group may wish to meet prior to the next Inter-Agency Meeting.

PRESENTATION OF INVENTORIES OF METHODS OF ANALYSIS
AND SAMPLING USED IN THE AGRICULTURAL AND FOOD INDUSTRIES

62. The ISO and IDF inventories were introduced by the Rapporteur and the Representative of IDF, respectively.
63. The Meeting welcomed the availability of such documents and invited the other Organizations to prepare similar inventories. It was noted that the IDF and ISO inventories would be updated at intervals of approximately 12 months and circulated to Organizations represented at the Inter-Agency Meetings.

APPENDIX VI (contd.)

CHECKLIST OF INFORMATION REQUIRED TO EVALUATE METHODS OF ANALYSIS
SUBMITTED FOR ENDORSEMENT BY THE CODEX COMMITTEE ON METHODS OF
ANALYSIS AND SAMPLING

64. The Meeting discussed the contents of document CX/MAS 84/5 intended for consideration at the Fourteenth Session of the CCMAS. It was recognized that most of the information required for submission to the CCMAS together with the request for endorsement of the respective method should be made available by the responsible Organization.

65. The Representative of ISO stressed the need for internationally agreed terminology as the definitions in document CX/MAS 84/5 apparently differed from those normally used by IUPAC and ISO. They also felt that the presentation of the table on page 5 should be amended to better correspond to the practical needs.

66. The Representative of IDF wondered why pages 3,4 and 5 had been included in the document since, in his opinion, these pages should be included in a general guide on collaborative studies.

67. The Chairman reminded Participants that the document would be discussed in detail at the forthcoming Session of CCMAS and that the interested Organizations would have the opportunity to comment on the document. The Inter-Agency Meeting itself, however, had no mandate to take a decision on this text.

DATE AND PLACE OF THE NEXT MEETING

68. As agreed under item 5 of the Agenda, the next Inter-Agency Meeting will be held in conjunction with the 1986 Session of the CCMAS.

ANY OTHER BUSINESS

69. The Representative of IUPAC informed the Meeting of scientific symposia (EURO-FOODCHEM) organized by the European Federation of Chemical Societies. This Organization comprised 19 European Countries. Its work might be of interest to Participants of the Inter-Agency Meeting.

70. Before closing the Meeting, the Chairman thanked the participants, the Hungarian hosts, the interpreter, the staff of MSZH, the Rapporteur and all who had contributed to the success of the Meeting. Referring to the new permanent status of the Inter-Agency Meeting, the Chairman expressed his hope that the demands of the CAC could be met by the joint efforts of all participating Organizations.

71. The Representative of AOAC, on behalf of all Participants, thanked the Chairman for his able conduct of the Meeting.

FIFTH INTER-AGENCY MEETING OF INTERNATIONAL ORGANIZATIONS

LIST OF PARTICIPANTS

CHAIRMAN : Mr. G. CASTAN
Direction des Affaires Techniques
le Directeur politique et orientation
AFNOR
Tour Europe Cedex 7
F-92080 La Defense, Paris
FRANCE

RAPPORTEUR : Mr. K-G. LINGNER
Senior Technical Officer
ISO Central Secretariat
1 rue de Varembe
CH-1211 Geneva 20
SWITZERLAND

AOAC : Dr. W. HORWITZ
Scientific Advisor
Bureau of Foods, HFF-7
Food and Drug Administration
200 C Street, S.W.
Washington, D.C. 20204, U S A

Ms G. COX
Chief Executive Officer
Cox and Cox Investments
12006 Auth Lane, Silver Spring
MD 20902, U S A

Ms E.J. CAMPBELL
Division of Regulatory Guidance, HFF-312
Food and Drug Administration
200 C Street, S.W.
Washington, D.C. 20204, U S A

Ms M. TUINSTRA-LAUWAARS
European Representative of the AOAC
Langhoven 12
6712 SR Bennekom, The NETHERLANDS

Dr. W.P. COCHRANE
Director, Laboratory Service Division
Agriculture Canada, Bldg. 22
Carling Avenue, Ottawa, Ontario
CANADA, KIA OC 5

Prof. A.P. RAINOSEK
Chief, Quality Assurance Gp. MMFS
National Seafood Inspection Lab.
P.O. Brawer 1207
Pascagoula, MS 39567, U S A

Mr. J. YERANSIAN
Corporate Research Manager
Analytical Chem. Laboratory
General Foods, Technical Centre
White Plains, N.Y. 10625, U S A

ANNEX I (contd.)
APPENDIX VI (contd.)

CAC : Dr. L.G. LADOMERY
Joint FAO/WHO Food Standards Programme
FAO
Via delle Terme di Caracalla
I-00100 Rome
ITALY

Dr. N. RAO-MATURU
Joint FAO/WHO Food Standards Programme
FAO
Via delle Terme di Caracalla
I-00100 Rome
ITALY

CCMAS : Dr. R. LÁSZTITY
Professor, Dept of Biochemistry and
Food Technology
Technical University of Budapest
PF 91, H-1521
Budapest
HUNGARY

Dr. D. TORLEY
Associate Professor
Department of Biochemistry and Food
Technology
Technical University of Budapest
Pf 91, H-1521
Budapest
HUNGARY

ICC Dr. H. GLATTES
Secretary-General
International Association for Cereal
Science and Technology
Schmidgasse 3-7
A-2320 Schwechat
AUSTRIA

Ms H. REIGNER
Executive Secretary of ICC
Schmidgasse 3-7
A-2320 Schwechat
AUSTRIA

IDF Mr. E. HOPKIN
Deputy Secretary-General
IDF General Secretariat
Square Vergote 41
B-1040 Bruxelles
BELGIUM

IFG Dr. B. WHITEHOUSE
Technical Manager
Government and Regulatory Affairs
CPC Europe Industrial Products
Research Development Centre
Havenstraat 84
B-1800 Vilvoorde
BELGIUM

ISO : Drs. H.W. SCHIPPER
Head of Food and Agriculture Department
NNI Kalfjeslaan 2
P.O. Box 5059
2600 GB DELFT
THE NETHERLANDS

Mr. E.B. NOUAT
Ingénieur Principal
Division Agriculture Agro-Alimentaire
Forêt
AFNOR
Tour Europe Cedex 7
F-92080 La Defense
Paris, FRANCE

ISO/TC 34 : Mr. K. KISMARTON
Secretary of ISO/TC 34
Head of Department MSZH
H-1091 Budapest
Úllői út 25
HUNGARY

Ms B. LAK
Secretary of ISO/TC 34/SC 4
MSZH, Úllői út 25
H-1091 Budapest
HUNGARY

Ms. E. MADAS
Engineer, MSZH, ISO/TC 34 Secretariat
Úllői út 25
H-1091 Budapest
HUNGARY

IUPAC : Dr. P.B. CZEDIK-EYSENBERG
Ketzergerasse 471
A-1238 Vienna
AUSTRIA

NMKL : Ms. H. WALLIN Lic. PH.
Secretary of the Finnish National
Committee of NMKL
SI-02150 ESPOO
FINLAND

EXCUSED

OICC/AIFC : Dr. H.J. VOS

ICUMSA : Dr. A. EMMERICH

IFJU : Prof. Dr. H. WOIDICH

TERMS OF REFERENCE OF THE INTER-AGENCY MEETING

1. The Inter-Agency Meeting

The Meeting of International Organizations working in the field of Analysis and Sampling of Food Products (hereafter referred to as "The Inter-Agency Meeting") comprises representatives of interested international (governmental and non-governmental) Organizations active in the development and acceptance of such methods at the international level.

2. Terms of Reference

The aim of the Inter-Agency Meeting is to promote cooperation between International Organizations in order to respond to the needs of the Joint FAO/WHO Codex Alimentarius Commission. In this respect, the Inter-Agency Meeting:

- (a) participates in the preparation of common rules for the validation of methods of analysis and sampling;
- (b) assists the Codex Alimentarius Commission in identifying the needs of that Organization for methods of analysis and sampling and determines a concerted programme of action;
- (c) promotes coordination between the Organizations concerned in the development of such methods of analysis and sampling required by the Codex Alimentarius Commission;
- (d) examines the problems which arise in the field of these methods of analysis and sampling and which require international collaboration; and
- (e) promotes the uniformity of terminology relative to methods of analysis and sampling.

The Inter-Agency Meeting itself has no mandate to choose, control or develop such methods.

3. Sessions

The Inter-Agency Meeting is normally held in association with the Sessions of the Codex Committee on Methods of Analysis and Sampling (CCMAS).

4. Chairman

The Chairman of the Inter-Agency Meeting is appointed for the duration of one meeting and the period between that meeting and the subsequent meeting.

5. Secretariat

The Secretariat function is assumed by the ISO Central Secretariat.
