codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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ALINORM 87/29

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION
Seventeenth Session
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REPORT OF THE FIFTH SESSION OF THE CODEX COMMITTEE ON CEREALS, PULSES AND LEGUMES
Washington, D.C., 17–21 March 1986

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INTRODUCTION

1. The Committee on Cereals, Pulses and Legumes held its Fifth Session from 17-21March 1986 in Washington, D.C., by courtesy of the Government of the United States of America. The Session was chaired by Mr. David R. Galliart, Deputy Administrator, Federal Grain Inspection Service, USDA.

2. In speaking at the opening of the Session, Mr. E.F. Kimbrell, the Chairman of the Codex Alimentarius Commission, emphasized the importance of the work of the Codex Commodity Committees which provided the technical expertise for the establishment of international food standards. He expressed the hope that these standards, once adopted by the Commission, would be useful to facilitate international trade and to promote trade in products especially from developing countries.

3 The Chairman of the Committee informed the Committee that the four standards submitted for adoption to the 16th Session of the Commission had been adopted as Codex Standards and encouraged the Committee to direct its efforts towards the two standards(for sorghum grain and sorghum flour) referred to it by the Commission from the Coordinating Committee for Africa and the other standards under consideration (pulses, durum wheat product).

4. The Sesion was attended by delegates from the following countries: Argentina, Australia, Brazil, Canada, Cote d'Ivoire, Denmark, Egypt, Finland, France, Gabon, Federal Republic of Germany, Ireland, Japan, Madagascar, Netherlands, Norway, Poland, Spain, Switzerland, Tanzania, Thailand, Turkey, United Kingdom and the United States of America.

5. Observers were present from the following International Organizations:

- Association of Official Analytical Chemists (AOAC);
- Commission of the European Community;
- International Association for Cereal Science and Technology (ICC);
- International Federation of Glucose Industries (IFG);
- International Organization for Standardization (ISO);
- Millers Association of the EEC (GAM);
- Pan American Health Organization (PAHO).

A list of participants, including officers from FAO and WHO, is included in Appendix I to this report.

ADOPTION OF THE AGENDA (Agenda Item 2)

6. The Committee was informed that it had been requested by the Commission to review and revise, as appropriate, the labelling provisions in the adopted standards for cereals and cereal products and to align them with the recently adopted revised General Standard for the Labelling of Prepackaged Foods. The Committee decided to establish a small Ad-Hoc Working Group to elaborate recommendations to be considered by the plenary.

7. The Committee also noted that CCFA had, at its 18th Session, not given endorsement to several of the food additives in the standard for wheat flour and had

questioned the classification of bleaching agents as processing aids. Detailed information on these matters had been included in Item 3 (CX/CPL 86/3-Add. 2). The Committee was of the opinion that more emphasis be given to the further consideration of the above mentioned additives and agreed to consider the substances in an additional agenda item following the present Item 8, based on a further extended justification paper.

8. The Committee was informed that an Interagency Working Group on Methods of Analysis and Sampling had met on 14 March 1986 under the terms of reference established for that Working Group at the 3rd Session of the Committee (paras 89,109, 137 of ALINORM 83/29)and extended to cover the standards presently under consideration. A report of the Working Group would be presented to the Committee under the relevant agenda items and a summary report would be given under Item 3. (See paras 33-38).

9. The Committee was also informed that the 16th Session of the Commission had referred to this Committee the Draft African Regional Standard for Sorghum Grains (Appendix IV to ALINORM 85/28A) for further consideration as a worldwide standard. As requested by the Commission, a Circular Letter (CL 1985/40) had been issued to obtain comments on the above standard to enable the Committee to give consideration to a standard which was more representative at a worldwide level. The Committee noted that, in view of the fact that very few comments had been received even at a late date, the Secretariat had prepared a revised text based on other standards for cereals and cereal products. The document was distributed under Reference No. CX/CPL 86/5 (January 1986).

10. The Committee unanimously adopted the Provisional Agenda as amended (CX/CPL 86/1) .

MATTERS OF INTEREST ARISING FROM REPORTS OF THE CODEX ALIMENTARIUS COMMISSION AND CODEX COMMITTEES (Item 3(a))

11. The Committee had before it CX/CPL 86/2 containing matters of interest to the Committee arising from the 16th Session of the Commission, the 14th Session of CCMAS and the 18th Session of CCFL. The Committee also had before it Addendum 1 to the above paper (Proposal for the Amendment of Labelling Provisions) and Addendum 2 (Status of Endorsement of Food Additives in the Codex Standard for Wheat Flour).

Codex Standard for Wheat Flour (Appendix II to ALINORM 85/29)

12. The Committee was informed that the Commission, at its 16th Session, had adopted the above standard after an extensive discussion of those matters related to the sections on contaminants, hygiene and food additives which had already been subject to full consideration by the Committee. The Committee noted that CCMAS, at its 14th Session, had not given endorsement to any provisions for sampling since it felt that this was not possible before fundamental issues (General Principles) were resolved by the Committee. CCMAS had also reclassified various methods of analysis as Type I Methods and had consequentially deleted the related alternative methods proposed by this Committee.

13. The Committee was informed that CCFL, at its 18th Session, had endorsed the provisions on the declarations of nutritive value as well as the labelling of non retail containers which had been elaborated by the 4th Session of this Committee. The Committee noted that a number of food additive provisions had not been endorsed by

the 18th Session of CCFA. Furthermore CCFA had been of the opinion that bleaching agents should be food additives (see also para. 7 above).

14. The Secretariat informed the Committee that the standard was now being published without those provisions which had not been endorsed by the respective General Subject Committees. (Volume XVIII of the Codex Alimentarius).

15. The Committee noted that: (a) the issues of sampling and methods of analysis had been already considered by the Interagency Group and that the Group's recommendations would be available later during the Session; (b) the Working Groups for Food Labelling and Food Additives established under Item 2 would report back to the plenary. (See paras 39-61).

16. The Committee was informed that several delegations at the Commission had expressed concern on the level of fat acidity in wheat flour, equivalent to 30 mg of KOH. Subsequently, at the request of Canada, a Circular Letter had been issued (CL 1985/60) requesting the views of governments on the appropriateness of the above maximum level and on methodology. It was noted that this matter would be further discussed under Item 4. (See paras 62-80).

Codex Standards for:

(a) Maize (Corn) (Appendix III to ALINORM 85/29)

(b) Whole Maize (Corn) Meal (Appendix IV to ALINORM 85/29)

(c) Degermed Maize (Corn) Meal and Degermed Maize (Corn) Grits (Appendix V to ALINORM 85/29)

17. The Committee was informed that the 16th Session of the Commission had also adopted the above standards at Step 8 of the Procedure.

18. It was noted that the remarks on the Standard for Wheat Flour in paras 12, 13,14 and 15 above applied also to these standards.

19. CCFL had, at its 18th Session, endorsed the labelling provisions for non-retail containers included in the three standards.

20. The Committee noted that the adopted standards were being edited for publication as Volume XVIII of the Codex Alimentarius.

Draft Standard for Certain Pulses (Appendix VI to ALINORM 85/29)

21. The Committee noted that the 16th Session of the Commission had advanced the above Standard to Step 6 of the Procedure and agreed to consider the matters related to it in connection with Item 6.

PROGRESS REPORTS ON WORK PROGRAMMES OF ISO AND ICC (Agenda Item 3(b))

Report on Work Programme of ISO

22. The observer of ISO presented document CX/CPL 86/2-Add. 3 which reported the status of the activities of ISO concerning cereals and pulses from September 1984 to November 1985. He pointed out that since the latter date three new standards had been published:

23. ISO 711-1985 Cereals and Cereal Products - Determination of moisture content (basic reference method-minor revision and reconfirmation of ISO 711-1978).

24. ISO 712-1985 Cereals and Cereal Products - Determination of moisture content(routine reference method-minor revision and reconfirmation of ISO 712-1979).

25. ISO 7305-1986 Milled Cereal Products - Determination of fatty acids.

26. This last standard should be of special interest to the Committee because of its immediate applicability.

27. In addition, the observer of ISO informed the Committee that draft proposals of specification for rice and wheat would be issued for voting and circulation as draft standards.

Report on Work Programme of ICC

28. The observer of the International Association of Cereal Science and Technology (ICC) informed the Committee that:

(a) The following new standards had been elaborated

No. 136-Cereals and Cereal Products. Determination of Total Fat Content - ISO 7302-1982

No. 137-Mechanical Determination of the Wet Gluten Content of Wheat Flour (Glutomatic).

No. 140-Enzymatic Determination of the Bran Content of Cereals.

No. 141-Determination of Mercury in Cereals.

(b) The following draft standards were expected to be adopted in 1986:

No. 142-Variety Identification by Means of Starch Gel Electrophoresis of the Wheat Gliadins.

No. 143-Variety Identification by Means of Polyacrylamide Gel Electrophoresis of the Wheat Gliadins.

Recommendation 202: Procedures for using Near Infrased (NIR) Instrumentation for Protein and Moisture Determination in Wheat.

29. The observer of ICC reported that the Working Group on Particle Size Determination was presently working on a sieving method for particle size distribution for wheat flour. The first ring tests had shown that hand sieving gave better reproducible results than sieving with different machines.

30. The observer of ICC stated that ICC was preparing the scientific programme for the next (8th) International Cereals and Bread Congress. The Congress would be held from May 30th to June 3rd 1988 in Lausanne, Switzerland. He invited the delegations present to propose items to be presented at the above Congress.

31. Several delegations expressed their interest in the use of electrophoresis to distinguish between wheat varieties.

32. The Chairman of the Committee expressed the appreciation of the Committee to ICC for its excellent cooperation with this Committee.

SUMMARY REPORT ON THE MEETING OF THE INTERAGENCY WORKING GROUP ON METHODS OF ANALYSIS AND SAMPLING

33. The Committee reveived a summary report (CRD 6) from the Chairman of the above Working Group, Dr. William Horwitz (United States) which had met on 14 March 1986 in Washington, D.C.. The Working Group had considered the following matters:

(a) Methods of Analysis and Sampling for Certain Pulses.

(b) Actions of the Codex Committee on Methods of Analysis and Sampling with respect to the Standards for Cereals, Cereal Products and Pulses.

(c) Updating and correction of applicable Sections of the Draft Standards for Wheat Flour, Maize (Corn), Whole Maize (Corn) Meal, Degermed Maize(Corn) Meal, and Maize (Corn) Grits.

(d) Comments regarding a more appropriate Method for the Determination of Fat Acidity.

(e) Methods of Analysis and Sampling for the recent Standards for Sorghum Grains and Sorghum Flour, and Durum Wheat Flour and Semolina.

34. The Chairman of the Working Group indicated that the sections of the report pertaining to items (a), (d) and (e) would be dealt with under the relevant Agenda Items.

Action of CCMAS on Methods for Sampling in Codex Standards for Wheat Flour, Maize (Corn), Whole Maize (Corn) Meal, and Degermed Maize (Corn) Meal and Degermed Maize (Corn) Grits

35. The Committee noted that the Working Group had been informed on the fact that CCMAS had not yet endorsed the above methods for sampling (for details see paras 12 and 18).The Committee further noted that the Working Group had expressed concern about this decision since the sampling provisions submitted were based on sound statistical principles and were extensively used in practice. Furthermore, sampling methods were of great importance for the standards for cereals and cereal products, already adopted, in view of the influence of sampling on the important parameters in the standards, e.g., moisture content. The Working Group proposed, therefore, that the sampling provisions be referred again to CCMAS for temporary endorsement. The Committee agreed with the above proposal by the Working Group and the detailed provisions for sampling in the already adopted standards as contained in the report of the Working Group (Appendix VI to this report).

Up-Dating of References of Methods of Analysis and Sampling in Codex Standards elaborated by the Committee

36. The Committee was informed that the Working Group had reviewed the references of the methods for sampling and of those methods of analysis which had been endorsed by CCMAS. The Committee agreed that the Secretariat should be instructed to include these updated references in the publication of the standards in Volume XVIII of the Codex Alimentarius.

Classification of Method for the Determination of Protein

37. The Committee was informed that CCMAS had reclassified as Type I Method ICC 105/1 -Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and for Feed; Selenium/Copper Catalyst. The Working Group had recommended reconsideration of the classification of the Kjeldahl method from Type I to Type II (with specific factors in each standard) in view of the absolute nature of this procedure.

38. The Chairman of the Committee expressed the appreciation of the Committee to the Working Group for its excellent work.

REPORT OF THE WORKING GROUP ON THE REVISION OF LABELLING PROVISIONS IN STANDARDS DEVELOPED BY THE COMMITTEE

39. The Chairman of the above Working Group, Mr. Charles W. Cooper of the United States, introduced the report of the Group as contained in CRD No. 9. (See also para. 6).

40. Members of the delegations of the Netherlands, Norway, Switzerland, United Kingdom and the United States and the Codex Secretariat had participated in the Working Group which had carried out the review and elaborated proposals for the revision of the labelling sections of the four Codex Standards for Cereals and Cereal Products already adopted by the Commission and the Codex Standard for Pulses to align them with the revised General Standard for the Labelling of Prepackaged Foods.

41. Mr. Cooper presented the report as follows: The Working Group had considered ALINORM 85/29, Appendices II, III, IV, V, VI; ALINORM 85/22A, Appendices IV and V and CX/CPL 86/2-Add. 1. The Working Group considered the labelling provisions of the standards concerned, including the standards presently under elaboration and compared them to the General Standard for Labelling of Prepackaged Foods and the Codex Guidelines on Labelling Provisions in Codex Standards. The Working Group made the following general recommendations:

(a) The revised preamble contained in the Guidelines on Labelling Provisions in Codex Standards was applicable to all five standards reviewed as a consequential amendment to the adoption of the General Standard for the Labelling of Prepackaged Foods. The provision reads as follows: "In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) [1/] the following specific provisions apply: "

(b) The net contents provision in each standard should be amended by deleting reference to the avoirdupois system of measurement. With this amendment, the net contents provision in each standard conforms with the General Standard as revised.

(c) The Working Group agreed that the revised language for declaration of Name and Address in CX/CPL 86/2-Add.l was merely editorially different from the standard. However, the Working Group recommended that "of the manufacturer, packer, distributor, importer, exporter or vendor of the food" be deleted from the Name and Address section of each Codex Standard in CX/CPL 86/2-Add. 1, because it merely repeats language in the General Standard. The reference to Section 4.4 was sufficient.

(d) Unless a commodity standard excluded food that had been irradiated, the standard should provide for labelling of the irradiated food. The Working Group noted that there could be objections to such labelling provisions on the grounds that they could be seen as promoting the irradiation of food. However, the Working Group concluded that having provisions for the labelling of irradiated foods acknowledges the possibility that they exist but does not constitute an endorsement. The Working Group recommended that the provisions in the standards for the labelling of irradiated foods be discussed and submitted for comments.

(e) The Working Groups recommended that the Committee adopt in all five standards the language proposed in CX/CPL 86/2-Add. 1, non-retail containers section regarding lot identification.

(f) The Working Group recommended that the same changes, as applicable, should be made to the new standards presently under consideration.

42. In the discussion that followed, several delegations expressed concern on the proposal to include labelling provisions for irradiated foods or for foods prepared from irradiated raw materials in the standards which did not contain a specific provision for irradiation treatment. The delegation of Switzerland was in general not in favour of including labelling provisions related to irradiation since no methods of analysis existed to verify whether or not the product had been irradiated.

43. The delegation of the Federal Republic of Germany held the opinion that the inclusion of labelling provisions could be taken to mean that irradiation was permitted and this could mislead the consumer. The delegation of the Federal Republic of Germany was therefore not in favour of including labelling provisions related to irradiation as long as the question of irradiation of the respective product was not decided by the Codex Committee.

44. The delegation of the United States did not agree with the first sentence of paragraph 4 of Conf. Room Document No. 9 (now Section "d" of para. 41 above) which implied that foods may be irradiated if the Commodity Standard did not exclude irradiation. The position of the United States was that foods coming within the scope of a standard may be irradiated only if the commodity standard contains a provision specifically providing for irradiation. The Committee agreed with the recommendations made by the Working Group and decided to give further consideration to the provisions on the labelling of irradiated foods under the individual standards below.

45. The Committee noted that the Working Group referred in its recommendations on specific provisions on individual standards to the sequence of sections contained in CX/CPL 86/2-Add. 1.

[1/] Thereafter referred to as "General Standard'.

Codex Standard for Wheat Flour

46. The Committee agreed to the proposals of the Working Group concerning Sections 8.1 -The Name of the Food, 8.2 - List of Ingredients, 8.3 - Declaration of Nutritive Value,8.4 - Net Contents, 8.5 - Name and Address, 8.6 - Country of Origin, 8.7 - Lot Identification, 8.8 - Date Marking and Storage Instructions, and gave further consideration to the following sections:

8.3 - Declaration of Nutritive Value

47. The question of whether the declaration of nutritive value should be coordinated with the provision in the standard on the addition of nutrients to the food was raised in the Working Group. However, the Working Group had concluded that that question was outside its purview and perhaps should be considered by the Committee. The Committee agreed that the matter could be taken up at a future session.

8.9 - Irradiated Foods

48. The Committee noted that the Working Group had concluded that wheat flour which had been irradiated was not covered by the standard. This was based on the

provision in Section 1.2 - Scope, fifth indent. However, the standard did cover flour prepared from wheat that had been irradiated.

49. The Working Group had therefore proposed that the following provision be included in the standard:

"Where wheat flour has been prepared from raw material treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard. "

50. Recalling its earlier general discussion on irradiated foods, the Committee considered the following comments specific to wheat flour:

51. The delegation of Canada stated that irradiation of wheat flour was not yet practiced and the question of labelling should be postponed until appropriate processes had been agreed to. This point of view was supported by the delegation of France which indicated that the irradiation of wheat flour could be envisaged at a later time to reduce, if necessary, microbial contamination. The delegation of Australia expressed the view that the labelling provisions proposed by the Working Group were appropriate.

52. The Committee agreed with the opinion of the delegation of Canada that the overall question of the inclusion of specific provisions for irradiation treatment should be discussed at a future meeting.

8.10 - Labelling of Non-Retail Containers

54. The Committee agreed that the provisions in Section 8.10.1 were appropriate and didnot require any amendment with regard to date marking and storage instructions.

8.10.2 - Irradiated Foods in Non-Retail Containers

55. The Committee noted that the General Standard for Irradiated Foods contained a labelling section which applied to non-retail containers. The Working Group had examined the provision and agreed that Section 8.10.2 was consistent with Section 8.9. The Committee further noted that the CCFL had not given specific advice on the subject in its Guidelines on Labelling Provisions in Codex Standards. (Appendix V to ALINORM 85/22A) The Committee therefore requested advice from CCFL and CCFA on this matter and decided to place the provision in square brackets.

56. The Committee agreed with the view of the Working Group that Sections 4.8, 5.1 and 6 of the General Standard for the Labelling of Prepackaged Foods were not applicable to wheat flour or any other of its standards.

Codex Standard for Maize (Corn)

57. The Committee agreed with the proposed amendments for Sections 7.1 - The Name of the Food, 7.2 - Net Contents, 7.3 - Name and Address, 7.4 - Country of Origin and 7.7 –Non-retail Containers. It also agreed that there was no need for inclusion of other General Standard provisions, such as Instructions for Use, Quantitative Labelling and Exemptions from Mandatory Labelling because they did not apply to maize.

58. The Committee agreed that Section 7.5 - Lot Identification should be left unchanged because it was specific for this product. This was also valid for the standard for wheat flour.

59. As requested by the Working Group, further consideration was given to the following sections:

7.6 - Irradiated Foods

The Working Group had considered the scope section of the standard which excluded processed maize and had noted that the General Standard for Irradiated Foods referred to "foods processed by irradiation". The Working Group had, however, considered that the standard did not exclude irradiated maize and their appropriate labelling provision should be included. The Committee agreed that comments should be requested on this decision and placed the section in square brackets.

7.7.2 - Irradiated Foods in Non-Retail Containers

The Committee agreed to take the same position as on Section 8.10.2 in the Codex Standard for Wheat Flour (see para. 55).

Codex Standards for Whole Maize (Corn) Meal and for Degermed Maize (Corn) Meal and Maize (Corn) Grits

60. The Committee noted that the Working Group had revised the labelling sections of the above two standards and that the proposed amendments followed the pattern of the standard for wheat flour and maize, as applicable.

61. The Committee agreed to include the full text of the above proposed amendments as Appendix XI to this report. The Committee noted that, in order to proceed with the amendment of the standards, the above amendments had to be classified as editorial, consequential or substantive. The Secretariat was instructed to include the classification in the final version of the report, based on the above Working Group report and on the decisions taken with regard to the standard being elaborated. The Secretariat was also instructed to take appropriate action to initiate the amendment procedure and endorsement by CCFL.

FURTHER CONSIDERATION OF SECTION 3.3.3 (FAT ACIDITY) OF THE CODEX STANDARD FOR WHEAT FLOUR (Agenda Item 4)

62. The Committee had before it the text of the above section as contained in the Codex Standard for Wheat Flour (ALINORM 85/29, Appendix II).

63. The Committee recalled that the Interagency Working Group on Methods of Analysis and Sampling, which had met in conjunction with its 4th Session of the Committee, had indicated that more information was needed on the value of fat acidity and, possibly, on related methodology to determine fat acidity in wheat flour. (See para. 6 to App. VII to ALINORM 85/29).

64. At the request of Canada a Circular Letter (CL 1985/60-CPL) had been issued, inviting governments to submit information for further consideration by the Interagency Working Group on Methods of Analysis and Sampling and by the Committee at its present session.

65. The Committee had before it documents CX/CPL 86/8, CX/CPL 86/8-Addendum I and CRD No. 5 containing replies to CL 1985/60-CPL from Canada, Denmark, France, Ireland, Netherlands, Philippines, Poland, Portugal, Sweden, Turkey and the United Kingdom.

66. The Committee noted that the standard had been adopted at Step 8 by the Commission (para. 521 of ALINORM 85/47). This meant that any changes or amendments agreed to at the present session would have to follow the established procedure for the amendment of Codex Standards.

Fat Acidity Value

67. The Committee noted that a number of governments had commented on the present fat acidity value of 30 mg KOH.

68. The delegation of Canada indicated that even under optimal conditions a value of more than 30 mg KOH was common, and that, therefore, it would be realistic in view of the high extraction rate flours covered by the standard, to increase the value to 50mg KOH. The delegation also referred to the fact that the comments received related to the use of the method presently included in the standard and that a modified method tested by the AACC, in which benzene had been replaced by toluene, was now available.

69. The delegation of the Netherlands speaking on behalf of the member states of the EEC stated that the recently adopted ISO method 7305 for fat acidity determination should be a defining method and that the corresponding figure for a maximum level of fat acidity should still be defined. As far as the analysis method for ash contents was concerned the internationally recognized ICC method 104 should be recognized as a defining method.

70. The observers of the EEC and GAM declared that the AOAC method presented a hazard to health, mainly for the reason of using benzene and now toluene. The EEC and GAM recommended, therefore, the utilization of the new ISO method No. 7305 (alcohol extraction method) which has been submitted for testing by member states especially concerning the determination of a maximum limit. Furthermore the observers of EEC and GAM have raised the question of determining ash content and pointed out that the ICC method No. 104, used by the member countries of the EEC and of GAM, should be retained since it is a particularly fast method.

71. The Chairman of the Interagency Working Group pointed out that the Working Group had replaced the method containing the toxic solvent benzene with the AACC method using toluene, which was not considered as a toxic solvent on the basis of documentation showing, no change was needed in the standard. The Chairman also pointed out that the question of ash methods was discussed thoroughly at the last session and the 550°C method was endorsed as the defining method in preference to the 900°C method.

72. The Committee noted that Poland in its written comments considered that a fat acidity of wheat flour which contained not more than 1.4% m/m of ash should not exceed30 mg KOH in 100 mg of the flour on dry matter basis, and that the Philippines had indicated that the fat acidity test was not practiced in its country.

73. The delegation of Japan pointed out that there were very limited data available concerning the relationship between fat acidity and product quality as well as between fat acidity and ash content of wheat flour so that more information on this matter should be collected before setting actual values. The delegation of Switzerland agreed with this point of view.

74. The delegation of the United Kingdom expressed the view that the limit of 50 mg might be inadequate for flour with a high extraction rate and a high bran content. It suggested that more data should be obtained based on the AOAC and the ISO methods.

75. The delegations of Spain, Brazil, Netherlands, USA, France and the observer of GAM were in favour of raising the limit to 50 mg. The delegation of Turkey wished to retain the figure of 30 mg.

76. The Committee agreed to give consideration to the different methods available. The observer of ISO pointed out that ISO method ISO 7305-1986 using ethanol as

solvent was now being published. It contained two types of calculations, expressed either as mg of H_2SO_4 or KOH. However, no comparative data with the A0AC/AACC method were yet available.

77. The Chairman of the Interagency Working Group on Methods of Analysis and Samplin gave a detailed explanation of the modified AOAC method (see PART D of Appendix VI).

78. Several delegations spoke in favour of using the ISO method because of the toxic nature of the solvents used in the A0AC/AACC method.

79. The Committee agreed to the following course of action:

(a) To request the Commission to approve the amendment of Section 3.3.3 of the standard to increase the value for fat acidity to 50 mg KOH, retaining the present method which had been classified as a Type I method. (See Appendix VII).

(b) To instruct the Secretariat to issue a Circular Letter which set out the concept of the AOAC/AMCC and of the ISO methods.

80. Governments should be requested to indicate appropriate values related to each of the methods and, if possible, to submit comparative data. They should also be invited to indicate which method they preferred since it appeared not to be possible to include two defining methods in the standard.

SURVEY ON CONTAMINANTS (Agenda Item 5)

81. The Committee had before it document CX/CPL 86/3 containing a summary of the data received from governments on contaminants including some information on mycotoxins and, in Appendix I to the paper, a tabulation of the actual data submitted.

82. Mr. P. Rossier, Head of the delegation of Switzerland and author of the paper, introduced the paper and indicated that, in addition to the countries mentioned in CX/CPL86/3, replies had been received from the Federal Republic of Germany, Finland and the United States; Appendix I to the paper was being amended accordingly.

83. Mr. Rossier stated that the conclusions set out in the paper were still valid, namely: (a) it was not possible to submit to the Committee a scientifically based proposal of maximum levels on contaminants in cereals, pulses and legumes due to the small number of replies; (b) national limits varied widely; however, reported results of analysis showed a less apparent dissimilarity; (c) no further consideration should be given to bromine, selenium, sulphur and nickel; Furthermore, provisional limits had been proposed for arsenic, cadmium, copper, mercury, lead and zinc. Mr. Rossier pointed out that for none of these substances included in the survey, limits have been reported which constituted an immediate danger to health. He therefore proposed, that the survey be continued on a restricted number of contaminants (heavy metals and mycotoxins) to be decided upon by the Committee.

84. The delegation of the Federal Republic of Germany proposed to limit the heavy metals to cadmium, lead and mercury and to study further the question of mycotoxins. He indicated that in his country a maximum level of 10 ppb had been established for several mycotoxins and of 5 ppb for aflatoxin B_1 .

85. The delegations of the United States and the Netherlands supported the above proposal.

86. The delegation of France informed the Committee that it had not voluntarily answered the questionnaire because the results of the analysis which they had were not sufficiently significant to be published. It also proposed to retain arsenic in the enquiry.

87. The representative of GAM drew attention to the fact that especially in the case of mycotoxins it was important to specify the method by which the analytical results had been achieved.

88. The Secretariat informed the Committee of the work carried out by the Global Environmental Monitoring Systems (GEMS) established by UNEP. Attention was also drawn to the 19th Session of the FAO Intergovernmental Group of Oilseeds, Oils and Fats which had reviewed the recent developments concerning regulations and tolerance limits for aflatoxins and which had urged the Codex Alimentarius Commission to establish internationally agreed levels for these substances. The Committee noted that mycotoxins had been and were being considered also by CCFH and CCFA.

89. The Committee concluded that the survey should be continued on arsenic, cadmium, lead and mercury, and on mycotoxins. It was agreed that a revised questionnaire should be prepared in cooperation with the Secretariat and that countries which had already replied to the previous questionnaire should be invited to submit changes only to the already presented data.

90. The Committee expressed its thanks to Mr. Rossier of Switzerland for the excellent work done so far and accepted his kind offer to continue the survey and submit a new report to the next session of the Committee.

CONSIDERATION AT STEP 7 OF DRAFT STANDARD FOR CERTAIN PULSES (Agenda Item 6)

91. The Committee had before it the above standard as contained in Appendix VI of ALINORM 85/29 and documents CX/CPL 86/4 and CX/CPL 86/4-Addendum 1 containing comments from the following countries: Cuba, Denmark, Ireland, Poland, Sweden, Switzerland, Thailand, Netherlands. Comments had also been submitted by the International Pulse Trade and Industry Confederation (IPTIC).

92. The Committee noted that the standard had been advanced to Step 6 by the 16th Session of the Codex Alimentarius Commission and decided to consider the standard section by section.

Product Definition - Section 2.1

93. The Committee agreed to an editorial amendment of the section to clarify the meaning of the provision. The observer of ISO drew attention to the ISO document on the nomenclature for cereals, pulses and other food grains and indicated that several of the common names as well as the botanical names were incorrect. Furthermore, only one of a larger number of common names of equal importance had been selected. The Committee considered a proposal to include reference to botanical names only; however, this was rejected because pulses were normally traded under common names. The Committee finally decided to include generic names together with botanical names. It was also agreed that the Secretariat should seek advice with regard to the complete and exact botanical names to be used. (See para. 166).

Presentation - Section 2.2

94. The Committee noted a comment from Thailand that the term "exterior skin" was ambiguous and agreed to change the term to "seedcoat".

Moisture Content - Section 3.2.1

95. The Committee noted that in written comments the following levels had been proposed: Cuba, 13%; Poland, for round peas, 17%; Sweden, for beans, 15%. The delegation of the Netherlands proposed to increase the maximum moisture content for all pulses to 19%. The delegation of Japan stated that climatic conditions in its country favoured the formation of moulds and proposed to lower the maximum level in peas and beans to 16%. The delegation of Australia expressed the opinion that a moisture content of 18% was acceptable only in products for immediate use and that lower levels were required for stored products.

96. The delegation of the Federal Republic of Germany shared the view of Australia and Japan as to the need for lower moisture levels and proposed 16% for beans, péas and field beans and 14% for lentils. This was supported by Switzerland.

97. The delegation of France stated that the moisture content depended on the climatic conditions where the product was sold and expressed concern that, if the maximum level for moisture content was very low, pulses had to be dried artificially. This would have a negative effect on the quality since it caused internal cracking and discolouration. This was supported by the delegation of the United States.

98. In an attempt to find a compromise, the Chairman proposed to lower the maxima contained in Section 3.2.1.1 by 1% (except chick peas). This was agreed by the Committee. However, the delegations of Switzerland and Netherlands reserved their positions on this decision. The Committee agreed that editorial corrections would be made throughout the text by the Secretariat.

Foreign Matter - Section 3.3.2

99. The Committee replaced the term "skin" by "seedcoat".

Fragments - Section 3.3.3

100. The Secretariat was instructed to correct the French version of the text.

Serious Defects and Slight Defects - Sections 3.3.4 and 3.3.5

101. The Committee decided to replace the term "albumen" by "cotyledon".

Tolerances for Defects - Section 3.4

102. The Committee noted the comments of Cuba which proposed to reduce the total tolerances to 13% for a "good" quality classification. Concerning Section 3.4.1.1 the delegation of Poland stated that 0.20% for dead insects could not be agreed to. This was supported by the written comments of Sweden.

103. The delegation of Switzerland stated its reservations to Sections 3.4.1.1 (foreign matters) and 3.4.1.2 (serious defects). The delegation of the United Kingdom was of the opinion that the tolerance of 1% was appropriate for international trade in bulk. However, pulses in consumers packs should have a lower value. The Federal Republic of Germany expressed its concern to Section 3.4.1.2 with respect to the permitted mould content.

104. The Committee noted that a substantial number of amendments had been proposed to Sections 3.3 and 3.4 and decided to appoint a small Working Group to review these two sections.

105. The Working Group elaborated the following proposal:

3.3 Definition of Defects

3.3.1 Broken Pulses:

3.3.1.1 Broken in whole pulses: pulses in which the cotyledons are separated or one cotyledon has been broken.

3.3.1.2 Broken in split pulse: pulses in which the cotyledon has been broken.

3.3.2 Damaged:

3.3.2.1 Serious defects: (unchanged)

3.3.2.2 Slight defects: seeds which have not reached normal development; seeds with more or less extensive seedcoat staining, without the cotyledon being affected; seeds in which the seedcoat is wrinkled, with pronounced folding; or broken pulses.

3.3.3 Foreign Matter: mineral or organic matter (dust, twigs, seedcoats, seeds of other species, dead insects, fragments or remains of insects, impurities of animal origin).

3.4 Tolerance for Defects

The following tolerances with respect to quality, as percentages by weight, are allowed:

3.4.1 Quality Tolerances

3.4.1.1	(Unchanged)	
3.4.1.2	(Unchanged)	
3.4.1.3	Seeds with sight defects - including,	7%
3.4.1.3.1	Brokens	3%
3.4.1.4	Seeds of a similar colour but a different commercial type (except in beans with white seeds (Unchanged)	3% 6%)

3.4.1.6 Discoloured seeds of the same commercial type 10% (except in beans with green seeds and peas with green seeds, slight bleaching of the seed, 20%).

106. The Delegation of Norway pointed out that Sweden in its written comments had proposed to further define "foreign matters" in Section 3.3.3. The Committee agreed to add to the provision "and impurities of other animal origin". It also agreed to change the term "bleaching" in Section 3.4.1.6 to "discolouration".

107. The Committee accepted the above proposals of the Working Group without further change.

Contaminants - Section 4

108. The Committee was informed that CCFA had not agreed to endorse the provisions on contaminants and had expressed the view that specific limits on contaminants should be elaborated. The Committee recalled that pulses had been included in the Survey on contaminants and agreed that such specific limits could only be proposed after the survey had been finalized. It was therefore agreed to delete 4.1 and to indicate that the provision was "to be elaborated".

Food Hygiene - Section 5

109. The Committee noted that Section 5 followed the same pattern as the other standards developed by the Committee. The delegation of Poland informed the Committee that its country's Sanitary Inspection Services required a maximum limit for aflatoxins of 0.005 mg/kg subject to the sensitivity of the method applied.

Packaging - Section 6

110. The Committee agreed to remove the brackets from Section 6.3.

Labelling-Section 7

111. The Committee noted that the Working Group on Labelling Provisions had examined this section and had made the following proposals:

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985)[1/] the following specific provisions apply.

7.1 The Name of the Food

The name of the food to be declared on the label shall be the common name of the species listed in Section 2.1 followed, optionally, by the style.

7.2 Net Contents

The net contents shall be declared in weight by metric ("Système International") units in accordance with Section 4.3 of the General Standard.

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification

Unchanged.

7.6 Irradiated Foods

Where pulses in any presentation (style) covered by this standard have been treated with ionizing radiation/energy, they shall be labelled in accordance with Section 5.2 of the General Standard.

7.7 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard, the following specific provisions apply to pulses covered by this standard in non-retail containers as defined by the Codex Alimentarius Commission (Procedural Manual, 6th Edition).

7.7.1 Information required in Sections 7.1 to 7.5 shall either be given on the container or in accompanying documents, except that the name of the product and name and address of the manufacturer or packer shall appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

[1/] Thereafter called "General Standard".

7.7.2 Where pulses covered by this standard in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).

112. The delegation of the United States, referring to the discussion on Section 2.1 - Product Definition, proposed that Section 7.1 should read as follows: "The name of the food to be declared on the label shall be the commercial type followed by the style". The Committee considered another proposal which would require the name of the food to be the common name used in the country where the food was sold. The Committee decided to include the wording proposed by the United States.

113. The attention of the Committee was drawn to the square brackets on "lot identification". The delegation of the United States and several countries informed the Committee that lot identification was not usually required for non-retail containers of pulses and that this was the type of container moving in international trade. Other delegations pointed out that lot identification was important for consumer packages as it facilitated consumer protection. The Committee agreed to retain the provision for lot identification applicable to pre-packged pulses but to delete the requirements for lot identification for non-retail containers.

114. For the Committee's consideration of the provision for irradiated food (Section 7.6),see para. 53 above.

Methods of Analysis and Sampling - Section 8

115. The Committee agreed with the provision proposed by the Interagency Working Group on Methods of Analysis and Sampling as contained in Appendix VI to this report.

Status of the Standard

116. The Committee decided to advance the Draft Standard for Certain Pulses to Step 8of the Procedure. The revised standard is attached as Appendix II to this report.

117. The delegation of the Netherlands expressed disappointment at the many changes which had been made to the standard as originally drafted by the UNECE, especially since much work had been done to establish the important parameters such as moisture content. It expressed concern that the adoption of the Codex Standard in its present form could lead to discrepancies between Codex and UNECE Standards as already experienced for dried fruits. The Secretariat reminded the Committee of the agreement reached between UNECE and Codex Alimentarius Commission that UNECE would discontinue the work on its draft recommendation until the Codex Standard had been finalized to avoid the abovementioned problems (see ALINORM 83/43, para. 443).

CONSIDERATION AT STEP 7 OF THE REVISED TEXT OF THE DRAFT STANDARD FOR SORGHUM GRAINS AND RELATED GOVERNMENT COMMENTS (Agenda Item 7)

118. The Committee recalled that the 16th Session of the Commission had referred the Draft African Regional Standard for Sorghum Grains (Appendix IV of ALINORM 85/28A) at Step 6, to this Commitee for further development as a worldwide standard. The transformation into a worldwide standard had been proposed by countries outside the region of Africa, in particular Argentina and Mexico. The Commission had asked that comments be requested on the Draft African Regional Standard to enable the Secretariat to prepare a revised text prior to this session. Such comments had been

requested in CL 1985/45. The Committee noted that due to the late receipt of replies to the CL, a redraft had been prepared (CX/CPL 86/5) which took into account only the general format of other standards elaborated by the Committee and not the detailed specific comments received from Governments.

119. The Committee decided to consider the redraft in the light of the written comments from Argentina, Sweden and Switzerland (Add. I to CX/CPL 86/5) and from Thailand and France (Add. II to CX/CPL 86/5) and the reports of the Working Groups on Methods of Analysis and on Labelling.

Section 2.1.1 - Product Definition

120. The delegation of France pointed to an error in expressing the botanical name in the English version. This was corrected. Concerning Section 2.1.3 – Decorticated Sorghum Grains, the Committee was informed that no methods existed to verify the degree of decortication and agreed therefore to delete the relevant part of the provision.

Section 3.1.2

121. The Committee agreed with the proposal made by France in its written comments to revise Section 3.1.2 to include colours and reference to the tolerances for defects.

Section 3.2 - Moisture Content

122. The Committee noted the following proposals for maximum moisture content, France, 14.5%; Cote d'Ivoire, 15%; USA, 15%; Thailand and Argentina 15%. It was noted that 15% was considered to be suitable for shipping and storage of sorghum grains. The delegation of Canada pointed out that sorghum grains were traded often under unfavourable climatic conditions and suggested that the moisture content remain at 13%.

Section 3.2.2 - Ash

123. The delegation of the USA was of the opinion that there was no need for a minimum ash content and proposed to place the maximum value in square brackets because it had conflicting data on this parameter. This was agreed by the Committee. Concerning the relevant method of analysis, see Appendix VI.

Section 3.2.3 - Degree of Decortication

124. Subsequent to the change in Section 2.1.3, the Committee deleted this provision.

Section 3.2.4 - Protein Content

125. The Committee noted the proposal to change the protein value from N x 6.25 to N x 5.7. The Committee recalled that the matter had already been discussed at its fourth session in connection with the other standards developed by the Committee (ALINORM 85/29, para. 144) and left the provision unchanged. There was an extended discussion as to whether a minimum protein content of 7% was too high for sorghum grains with a high sugar content. The delegation of the United States presented the results of a study on protein values which ranged from 5.5 to 21.5%. In this study all mean protein values of sorghum from Africa had been above 7%.

126. The Committee agreed that for nutritional considerations, it was appropriate to stipulate a minimum protein content and left the provision unchanged.

Section 3.2.5 - Cellulose Content

127. The Committee noted that for decorticated grains, the cellulose content was a function of the degree of decortication and had no bearing on non-decorticated grains. It was also noted that the Interagency Working Group on Methods of Analysis had proposed an ICC method for the determination of crude fibre. In view of the deletion of the section on the degree of decortication, the Committee agreed to delete also the whole Section3.2.5.

Section 3.2.6 - Fat Content

128. On the proposal of the delegation of France the Committee agreed that there was no need for a provision for fat content for non-decorticated sorghum grains since they were unprocessed and could not be modified. However, it was agreed to retain a maximum fat content for decorticated sorghum grains since the fat content influenced the storage quality.

Tannin Content (New Provision)

129. The delegation of France proposed to introduce a provision for a maximum tannin content of 0.5% on a dry matter basis. The delegation explained that France had carried out acceptability tests in Africa of European varieties of sorghum and that varieties with a high tannin content had been poorly accepted. The delegation of Argentina agreed that such a provision should be included but that the value should be raised to 0.8%. The delegation of the Netherlands pointed out that the data on the negative effect of tannin available in Europe related only to feed sorghum.

130. The Committee noted that traditional local varieties might have a high tannin content conferring a bitter taste to the grain but serving as a deterrent to losses by pests. However, traditional methods of food preparation neutralized the adverse organoleptic qualities of tannin. The delegation of Canada pointed out that most of the tannin was concentrated in the seedcoat and that therefore the tannin content for commercially decorticated products was an important parameter for the degree of decortication.

131. The Committee agreed to include provision for a tannin content in both styles of sorghum grain but decided to request more information, particularly through the Regional Coordinating Committees, on the actual value to be included.

132. The Chairman of the Interagency Working Group on Methods of Analysis kindly agreed to assess two methods for the determination of tannin content proposed by France in its written comments.

133. The Committee agreed that tannin should be determined according to: NF V 03-751(September 1985) Sorghum - Determination of Tannin Content. (Type I method). According to the tabulation of results, this spectrophotometric method was applicable to the determination of tannin contents at approximately 0.5%. (See Appendix IV).

Section 3.2.7 - Impurities

134. The Committee noted that France had proposed extensive amendments to the section so as to follow in principle Sections 3.3 and 3.4 of the Codex Standard for Maize. It was also noted that the English version of the section needed to be aligned with the wording in the Codex Standard for Maize.

135. The Committee agreed to the proposal by the delegation of France but decided to add to Section 3.3.3.2 the following wording: "Foreign matter shall include loose sorghum seedcoats". In view of the importance of these amendments, it was decided to place the amended Sections 3.3 and 3.4 in square brackets. The Secretariat was

instructed to include in the final version of the report an editorially amended version. (See para. 134 above).

Section 4 - Contaminants

136. The Committee noted that Section 4.1 on contaminants was a carryover from the African Regional Standard which had not been included in any other standard developed by this Committee. It was decided, therefore, that Section 4.1 be deleted. The Committee further decided to include sorghum grains as well as sorghum flour in the survey of contaminants and to include in the draft standards the phrase "to be elaborated".

137. The Committee noted the following comments of Poland on sorghum grains and flour:

> Poland is of the opinion that precise limits should be set for heavy metals. The final list of these contaminants should be confirmed by an appropriate collaborative study by the Committee. For all grain products and flours in Poland the limits of heavy metals considered to be dangerous to health were as follows: As 0.2 mg/kg; Pb 0.3; Cu 6.0; Tn 40.0; Cd 0.1 (temporarily - for 6 years)".

Section 7 - Labelling

138. The Committee recalled that it had agreed with the proposal of the Working Group on Labelling to revise the labelling provisions as for the standards already adopted. The Committee also agreed to make the same changes in lot identification and non-retail containers as in the standard for pulses. (See para. 113 above).

Section 8 - Methods of Analysis and Sampling

139. The Committee agreed to the proposals of the Interagency Working Group on Methods of Analsyis and Sampling for the section as contained in Appendix VI.

Status of the Standard

140. The Committee decided to return the standard to Step 6 of the Procedure in viewof the extensive changes and the need to have more comments, especially on the provisionswhich had been placed in square brackets. The revised text of the standard is attachedas Appendix III.

PROVISION FOR FOOD ADDITIVES IN THE CODEX STANDARDS FOR WHEAT FLOUR

141. The Committee recalled that earlier in the session it had authorized the establishment of a Working Group to consider food additives provision which had not been endorsed by the CCFA (see para. 7) . Section 4 - Food Additives as présently endorsed and adopted by the Commission, reads as follows:

		Maximum levels
4.1	Enzymes	
4.1.1	Fungal amylase from Aspergillus niger	GMP
4.1.2	Proteolytic enzymes from Bacillus subtilis	GMP
4.2	Flour Improvers	
4.2.1	L-ascorbic acid and its Na and K salts	300 mg/kg
4.2.2	L-cysteine hydrochloride	90 mg/kg
4.2.3	Sulphur dioxide (in flours for biscuit and pastrymanufacture only)	200 mg/kg
4.2.4	Lecithin	2000 mg/kg

142. The Committee was informed that a Working Paper (CRD No. 7) had been prepared by the delegation of the United States with the assistance of other delegations. It was introduced by Dr. J. Modderman of the United States. The paper set forth a more complete justification for the use of certain food additives and of the bleaching agents. The working paper contained detailed information on azodicarbonamide, potassium bromate and monocalcium phosphate. The Committee agreed that the three substances should be resubmitted to the CCFA for endorsement together with the relevant section of the paper on technological justification and the appendices attached thereto.

Bleaching Agents

143. The Committee noted that the justification paper (CRD No. 7) contained information on the effect of chlorine and chlorine dioxide on improving characteristics of flour for certain baking purposes. It also noted that benzoyl peroxide was used for accelerating the aging of flour by simulation of the natural aging process. The Committee agreed that an amendment should be proposed to the Codex Standard for Wheat Flour to include the three above substances in Section 4 of the standard. The Committee was also informed that CCFA had recommended to this Committee to use the class name "flour treatment agent" instead of "flour improver". This was agreed to by the Committee.

144. The paper also outlined the proposal by CCFA to reconsider the use of certain additives in relation to their technological need, i.e., they should be restricted to limited use and should be appropriately labelled. The Committee agreed with the principles and conclusions contained in the working paper on the matter of labelling.

Enzymes

145. The Committee was informed that CCFA had endorsed only two of the four enzyme preparations submitted since there was no JECFA evaluation for the enzymes derived from Aspergillus oryzae. The Committee also noted the CCFA had generally classified enzymes as processing aids. The enzymes in this standard had been endorsed as food additives. The Committee concurred with this decision. The delegation of the United States informed the Committee that the two above enzymes were on the CCFA priority list for JECFA and requested that they be retained in the standard.

146. The Committee agreed with the two documents which contained: (a) provisions for additives to be resubmitted to CCFA for endorsement and subsequent inclusion in the Codex Standard for Wheat Flour and (b) proposed amendments to the Codex Standard for Wheat Flour concerning bleaching agents and enzymes.

147. The Committee instructed the Secretariat to include the paper on technological justification and its appendices in the report (see Appendix IX) and to take furtheraction, as appropriate, on the two documents mentioned in para. 146 above. (See Appendix VIII).

PROPOSED DRAFT AFRICAN REGIONAL STANDARD ON SORGHUM FLOUR AT STEP 4 (Agenda Item 9)

148. The Committee was informed that the 16th Session of the Commission had also referred the above standard as contained in Appendix V to ALINORM 85/28A to this Committee for further development as a worldwide standard. In view of the fact that the standard was at Step 4 only, no redraft had been prepared by the Secretariat prior to this session.

149. The Committee agreed to the proposal of the Commission to develop a worldwide standard for sorghum flour. The Secretariat was instructed to revise the draft as contained in Appendix V to ALINORM 85/28A, taking into account the Codex Standards for maize meals, the specific provisions for sorghum flour in the Proposed Draft African Standard and the comments received on the latter as contained in CX/CPL 86/6. Furthermore, the redraft should contain appropriately revised labelling provisions (see the report of the WG on Labelling, para. 5) and the relevant sections on methods of analysis and sampling elaborated by the Interagency Working Group. (See Appendix VI).

Status of the Standard

150. The Committee decided to advance the Proposed Draft Standard for Sorghum Flour to Step 5 of the Procedure, as contained in Appendix IV to this report.

BACKGROUND PAPER AND FIRST DRAFT OF A STANDARD FOR DURUM WHEAT FLOUR AND SEMOLINA (Agenda Item 10)

151. The Committee had before it the background paper, the above draft standard(CX/CPL 86/7) which was distributed during the meeting. The delegation of the United States, the author of the two papers, introduced the documents and pointed out that the data contained in the background document "Durum Wheat, World Situation Outlook" provided trade and production on durum wheat and not on milled durum wheat products. Data on milled products were difficult to obtain since not all countries agreed on a uniform classification for durum wheat. The delegation of Canada, as a large producer of durum wheat, pointed to the difficulties of differentiating milled products from wheat, durum wheat and mixtures. It was hoped that the electrophoretic methods which were under consideration, would remedy this problem.

152. The Netherlands speaking on behalf of the member states of the European Community stated:

- that the E.C. is the biggest producer, processor and consumer of durum wheat and derivatives thereof;
- that it will therefore follow with interest the work on a standard for durum wheat flour and semolina as soon as the draft will be available;
- that it already has regulations, rules and provisions for quality aspects, methods of analysis and tariff classification on issues such as ash content, moisture content, particle size and scope and that these might be taken into consideration during the future work of this Committee.
- since importations into the E.C. of durum wheat flour and semolina are subject to the international method of analysis for ash content of the ICC, the E.C. would be interested to have this method retained as a defining method so as to prevent, right from the start, the most unfortunate situation that now exists for the determination of the ash content in wheat

flour where a method that is mandatory in 12 countries is not recognized as a defining method.

153. The Committee was informed that this draft standard followed closely the other standards for cereals and cereal products.

154. The Committee confirmed its decision to elaborate the standard for durum wheat flour and semolina and instructed the Secretariat to amend the sections on labeling and methods of analysis as agreed to for the other standards under discussion.

Status of the Standard

155. The Committee advanced the Proposed Draft Standard for Durum Wheat Flour and Semolina as revised in Appendix V to Step 3 of the Procedure.

OTHER BUSINESS (Agenda Item 11)

ISO Specification for Rice

156. At the request of the delegation of the Netherlands the observer of ISO informed the Committee that the ISO Specifications for Rice was nearly finalized and was expected to be submitted in the near future to the ISO Central Secretariat for registration as a Draft International Standard. The finalization of the specification had been delayed because of problems concerned with the classification of rice. The observer hoped that the specifications would be ready for distribution to the Codex Alimentarius Commission after the next session of ISO/TC 34/SC 4 which would meet in October this year in Budapest. The observer of ISO kindly undertook to contact the ISO Central Secretariat to speed up the registration.

157. The Committee also noted that the Fifteenth Session of the Codex Alimentarius Commission had agreed to a precise procedure involving comments on the final text from Governments as well as Regional Coordinating Committees before the ISO specification would be submitted to this Committee for consideration of whether there was a need to elaborate a Codex Standard for Milled Rice. (Paras 438-440 of ALINORM 83/43).

158. The delegation of the Netherlands expressed concern that the procedure was very time consuming and would delay the final decision by this Committee for many years. It inquired whether there was a possibility to accelerate the procedure by informing the Executive Committee of the views presently expressed in this Committee.

159. The Committee noted that the matter would be brought to the attention of the Executive Committee in June this year by the Secretariat.

160. The delegation of Thailand wished to place on record that the procedure decided on by the 15th Session of the Commission should be strictly followed in order to avoid the elaboration of two different standards for the same product.

FUTURE WORK

161. The following items have been identified for future consideration:

Standards for:

- Pulses at Step 8
- Sorghum Grains at Step 6Sorghum Flour at Step 5
- Durum Wheat Flour and Semolina at Step 3

- Survey of Contaminants
- Provisions on Fat Acidity in Codex Standard for Wheat, Flour (a) value; (b) method
- Provision for Food Additives in the Codex Standard for Wheat Flour (proposed amendments)
- Revision of Labelling Section in Codex Standards for Cereals and CerealProducts
- Revision of Method for Determination of Protein Content
- Consideration of ISO Specifications on Rice
- Need for Specific Provisions in Codex Standards for Cereals and Cereal Products on Irradiation Treatment
- Review of Section 8.3 of Codex Standard for Wheat Flour.

162. The Committee also noted that the Summary Status of Work in ALINORM 85/29 contained several more items for consideration at a future meeting of the Committee.

163. The Committee noted with appreciation that the Interagency Working Group on Methods of Analysis, Sampling and Related Matters would continue its work and thanked the Working Group and its Chairman, Dr. W. Horwitz, for their efforts.

164. Several delegations pointed out that, because of the proximity of the Meeting of the Ad-hoc Interagency Working Group on Methods of Analysis and Sampling and the Sessions of the Committee, it was extremely difficult to fully digest the report of the Working Group in time to contribute effectively to the discussion on the relevant standards.

The Chairman of the Committee agreed to give consideration to this matter.

DATE AND PLACE OF NEXT SESSION

165. The Committee noted that the Sixth Session of the Committee would be held in Washington between the 17th and 18th Session of the Commission. After consultation between the Host Government and the Codex Secretariat the exact date would be communicated in due course.

SECRETARIAT NOTE:

166. As requested in para. 93 of this report, the Secretariat has obtained advice from the competent unit of FAO (Plant Production and Protection Division) on the correct botanical names for the pulses covered by the Draft Standard for Certain Pulses (see Appendix II) and has amended Section 2.1 of the Standard accordingly. Together with the appropriate botanical names information was obtained on widely used common names (in English) as follows:

Botanical name	Common name
Phaseolus vulgaris L	Haricot bean, Common bean, Field bean, French bean, Kidney bean, Pole bean, Snap bean, String bean
Phaseolus lunatis L syn (P. limenisis Macf.), P. inamoenus L.)	Lima bean, Burma bean, Butter bean, Madagascar bean, Rangoon bean, Sieva bean
Phaseolus coccineus L syn (P. multiflorus Lam.)	Runner bean, Multiflora bean, Scarlet runner bean
Phaseolus acutifolius Gray var. latifolius Freem.	Tepary bean, Rice haricot bean
Vigna mungo (L.) Hepper, syn. (Phaseolus mungo L.)	Urd, Black gram, Mash
Vigna radiata (L.) Wilczek. syn. (Phaseolus aureus Roxb.), (P. radiatus L.)	Mung bean, Green gram, Golden gram
Lens culinaris Medik. syn. (L. esculenta Moench.)	Lentil, Red dhal. Split pea
Pisum sativum L.	Pea
Cicer arientinum L.	Chick pea, Gram, Bengal gram
Vicia faba L.	Broad bean, Faba bean, Field bean Horse bean, Pigeon bean, Tick bean, Windsor bean
Vigna unguiculata (L.) Walp, syn.(v.sesquipedalis Fruhw.), (V. sinensis (L.) Savi ex Hassk.)	Cowpea,Blackeyebean,Blackeyepea, China pea, Cowgram, Southernpea

SUMMARY STATUS OF WORK

Standard/Code	Status Step	To be dealt with by	ALINORM/Appendix Document
Codex Standard for Wheat Flour	8	Governments	CAC/VOL. XVIII
Codex Standard for Maize (Corn)	8	Governments	CAC/VOL. XVIII
Codex Standard for Whole Maize (Corn) Meal	8	Governments	CAC/VOL. XVIII
Codex Standard for Degermed Maize (Corn) Meal and Maize (Corn) Grits	8	Governments	CAC/VOL. XVIII
Draft Standard for Certain Pulses	8	17th CAC	ALINORM 87/29, App. II
Draft Standard for Sorghum Grains	6	CC/CPL (6th)	ALINORM 87/29, App. III
Proposed Draft Standard for Sorghum Flour	5	17th CAC	ALINORM 87/29, App. IV
Proposed Draft Standard for Durum Wheat Flour and Semolina	3	CC/CPL (6th)	ALINORM 87/29, App. V
Fat Acidity in Codex Standard for Wheat Flour	3 [1/]	17th CAC	ALINORM 87/29, App. VII
Food Additives in Codex Standard for Wheat Flour	- [2/]	19th CC/FA 17th CAC	ALINORM 87/29, App. VIII
Revision of Labelling Provisions	-	17th CAC CC/CPL (6th)	ALINORM 87/29, App. XI
Survey on Contaminants	-	Governments CC/CPL (6th)	CX/CPL 88/...
Guidelines on Restoration of Nutrients in Wheat Flour	-	CC/FSDU CC/CPL	ALINORM 85/29 Paras 216-218
Milled Rice	-	CC/CPL	ALINORM 87/29 Paras 156-160
Wheat	-	CC/CPL	ALINORM 83/29 Paras 156-165
Code of Hygienic Practice for the Storage of Grains	-	CC/CPL	ALINORM 83/29 Paras 166-173
Further Processed Cereal Products	-	CC/CPL	ALINORM 81/29 Paras 48-49
Rolled Oats	-	CC/CPL	ALINORM 81/29 Paras 70-76

[1/] Pending approval by 17th CAC (see para. 79).

[2/] See paras 141-147.

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DRAFT CODEX STANDARD FOR CERTAIN PULSES
(Advanced to Step 8)

1. SCOPE

This standard applies to the whole, shelled or split pulses defined below which are intended for direct human consumption. The standard does not apply to pulses intended for factory grading and packaging, industrial processing, or to those pulses intended for use in the feeding of animals. It does not apply to fragmented pulses when sold as such, or to other legumes for which separate standards may be elaborated.

2. DESCRIPTION

2.1 Product Definition

Pulses are dry seeds of leguminous plants which are distinguished from leguminous oil seeds by their low fat content. The pulses covered by this standard are the following:

- beans of Phaseolus spp. (except Phaseolus mungo L. syn. Vigna mungo (L.) Hepperand Phaseolus aureus Roxb. syn. Phaseolus radiatus L., Vigna radiata (L.)Wilczek);
- lentils of Lens culinaris Medik. syn. Lens esculenta Moench.;
- peas of Pisum sativum L.;
- chick peas of Cicer arientinum L.;
- field beans of Vicia faba L.;
- cow peas of Vigna unguiculata (L.) Walp., syn. Vigna sesquipedalis Fruhw.,Vigna sinensis (L.) Savi ex Hassk..

2.2 Presentation

Pulses may be presented as whole, shelled or split styles:

- shelled pulses are pulses without their seedcoat, but the cotyledons not separated;
- split pulses are those without their seedcoat and with the two cotyledons separated one from the other.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 General requirements

3.1.1 Pulses shall be free of any abnormal smell or taste.

3.1.2 Subject to the tolerances allowed for defects, pulses shall be:

- whole, except in the case of shelled or split styles;
- sound;
- clean.

3.1.3 The condition of the pulses shall be such as to enable them to withstand normal transport and handling and ensure that they arrive in a satisfactory condition at the place of destination.

3.2 Analytical Characteristics

3.2.1 Moisture Content

3.2.1.1 The moisture content shall not exceed the following levels:

Pulse	Moisture Content (per cent)
- beans	17
- lentils	15
- peas	17
- chick peas	14
- field beans	17
- cow peas	17

3.2.1.2 In the case of shelled or split pulses, the maximum moisture content shall be 2 per cent (absolute) lower in each case.

3.3 Definition of Defects

3.3.1 Broken Pulses:

3.3.1.1 Broken in whole pulses: pulses in which the cotyledons are separated or one cotyledon has been broken.

3.3.1.2 Broken in split pulses: pulses in which the cotyledon has been broken.

3.3.2 Damaged:

3.3.2.1 Serious Defects: seeds in which the cotyledon has been affected or attacked by pests; seeds with very slight traces of mould or decay; or seeds with very slight cotyledon staining.

3.3.2.2 Slight Defects: seeds which have not reached normal development; seeds with more or less extensive seedcoat staining, without the cotyledon being affected; seeds in which the seedcoat is wrinkled, with pronounced folding; or broken pulses.

3.3.3 Foreign Matter: mineral or organic matter (dust, twigs, seedcoats, seeds of otherspecies, dead insects, fragments, or remains of insects, impurities of animal origin).

3.4 Tolerances for Defects

The following tolerances with respect to quality, as percentages by weight are allowed:

Quality Tolerances

3.4.1	- Foreign matter with not more than 0.25% of mineral matter and not more than 0.20% of dead insects, fragments or remains of insects, impurities of animal origin.	1%
3.4.2	- Seeds with serious defects	1%
3.4.3	- Seeds with slight defects including	7%
3.4.3.1	- Brokens	3%
3.4.4	- Seeds of a similar colour but a different commercial type	3%
	(except in beans with white seeds)	6%
3.4.5	- Seeds of different colour (other than discoloured seeds)	3%
3.4.6	- Discoloured seeds of the same commercial type	10%
	(except in beans with green seeds and peas with green seeds,slight discolouration of the seed)	20%

4. CONTAMINANTS

(To be elaborated)

5. HYGIENE (To be endorsed by the Codex Committee on Food Hygiene)

5.1 It is recommended that the product covered by the provisions of the standard be prepared in accordance with the appropriate sections of the Code of Hygienic Practice - General Principles of Food Hygiene (Ref. No. CAC/RCP 1-1969, Rev. 1).

5.2 When tested by appropriate methods of sampling and examination the pulses shall be: To the extent possible in Good Manufacturing Practice, free from objectionable matter, having regard to the tolerances indicated in Section 3.4 where applicable.

5.2.1 Shall be free from microorganisms, substances originating from microorganisms, or other poisonous or deleterious substances, in amounts which may reasonably represent a hazard to health.

6. PACKAGING

6.1 The products shall be packed in containers which will safeguard the hygienic properties and other qualities of the food.

6.2 The containers including packaging material shall be made only of substances which are safe and suitable for their intended use.

6.3 The presentation for sale of legume seeds in small packages wholly or partly made of coloured or tinted transparent materials is prohibited if it is likely to mislead the consumer.

7. LABELLING (To be endorsed by the Codex Committee on Food Labelling)

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985)[1/] the following specific provisions apply.

7.1 The Name of the Food

The name of the food to be declared on the label shall be the commercial type of the pulse followed by the style.

7.2 Net Contents

The net contents shall be declared in weight by metric ("Systeme International") units in accordance with Section 4.3 of the General Standard.

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification (Not applicable to Non-Retail Containers)

Each container shall be permanently marked in code or in clear to identify the packer and the lot.

[1] Hereafter called "General Standard".

7.6 Irradiated Foods [1/]

Where pulses in any presentation (style) covered by this standard have been treated with ionizing radiation/energy, they shall be labelled in accordance with Section 5.2 of the General Standard.

7.7 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to pulses covered by this standard in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition).

7.7.1 Information required in Sections 7.1 to 7.4, shall either be given on the container or in accompanying documents, except that the name of the product and name and address of the manufacturer or packer shall appear on the container. However the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.7.2 Where pulses covered by this standard in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983). 2/

8. METHODS OF ANALYSIS AND SAMPLING

(To be endorsed by the Codex Committee on Methods of Analysis and Sampling)

8.1 Moisture Content

ISO 665-1977 - Oilseeds - Determination of moisture and volatile matter content (Type I).

8.2 Methods of Sampling

ISO 951-1979 - Pulses in bags - Sampling.

Additional Methods:

AACC 64-70A - Sampling of wheat and other whole grains (large mass; other than mechanical means).

AACC 6450 Sampling of feeds and feedstuffs (Bagged materials).

AOAC 14th Ed. (1984) 7.001 - Sampling of animal feed (bag sampling).

ISO 950-1979 - Cereals - Sampling (as grain).

ICC 101/1 - Cereals - Sampling as grain (Stated to be identical to ISO 950).

ISO 6644-1981 - Cereals and milled cereal products - Automatic sampling by mechanical means.

ICC 120 - Mechanical sampling of grains (Stated to be identical to ISO 6644).

[1/] See para. 53.

[2/] See paras 53 and 55.

DRAFT STANDARD FOR SORGHUM GRAINS
(Returned to Step 6)

1. SCOPE

This standard applies to whole and decorticated sorghum as defined in Section 2, for direct human consumption, i.e., ready for its intended use as human food, presented in packaged form or sold loose from the package directly to the consumer. It does not apply to other products derived from sorghum grains.

2. DESCRIPTION

2.1 Definition of the Product

2.1.1 Sorghum grains are whole or decorticated grains obtained from species of Sorghum bicolour (L.) Hoench. They may be suitably dried if necessary.

2.1.2 Whole Sorghum Grains

These are sorghum grains obtained as such after a complete threshing without any further treatment.

2.1.3 Decorticated Sorghum Grains

These are sorghum grains from which the outer parts have been removed in an appropriate manner, using mechanical treatment.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Quality Factors - General

3.1.1 Sorghum grains shall not have abnormal odour or taste as determined from samples representative of the lot.

3.1.2 Sorghum grains may be of white, pink, red or brown colour, or they may be a mixture of grains of these colours. Sorghum grains shall be whole, clean and free from living insects, and shall not exceed the maximum impurity content set under Section 3.4.

3.2 Quality Factors - Specific

3.2.1 Moisture Content

The moisture content of lots of sorghum grains shall not exceed 15 percent m/m as determined from samples representative of the lot.

3.2.2 Ash

The ash content of decorticated sorghum grains shall be not more than [1.6] percent m/m on a dry matter basis.

3.2.3 Protein Content

The protein content (N x 6.25) shall not be less than 7 percent m/m on a dry matter basis.

3.2.4 Fat Content

For decorticated sorghum grains the fat content shall not exceed 4.7 percent m/m on a dry matter basis.

3.2.5 Tannin Content

(a) For non decorticated sorghum grains, the tannin content shall not exceed [ ]percent m/m on a dry matter basis.

(b) For decorticated sorghum grains, the tannin content shall not exceed [ ]percent m/m on a dry matter basis.

3.3 Definition of Defects

3.3.1 Impurities Constituted by Grains

"Impurities constituted by grains" means: sorghum grains damaged by pests, grains having an abnormal colouration, germinated grains, as well as the edible grains of other cereals and other cultivated plants.

3.3.1.1 Insect or Vermin Damaged Grains

Insect or vermin damaged grains include those kernels with obvious weevil-bored holes out, or grains where signs of hollowing out or tunnelling indicate that insects, cocoons or insect excreta are present, or degermed grains, grains eaten out at one or several places, or grains showing obvious signs of having been damaged by pests.

3.3.1.2 Grains Having an Abnormal Colour

Grains whose natural colouration have been modified by external factors: heating, thermal treatment, through contact with the soil, frost the elements. These grains may be dull, shrivelled, swollen, puffed, or bloated in appearance.

3.3.1.3 Sprouted Grains

Grains exhibiting obvious signs of sprouting.

3.3.1.4 Other Cereals and Other Cultivated Plants

Edible grains, whole or identifiable fragments of grains other than sorghum (cereal grains, legumes, other pulses and edible oilseeds).

3.3.2 Broken Grains

Broken grains are sorghum grain fragments or grains which pass through a screen having round holes 1.8 mm in diameter.

3.3.3 Miscellaneous Impurities

Miscellaneous impurities shall be damaged grains, foreign matter and dirt.

3.3.3.1 Damaged Grains

Damaged grains shall be grains made unsafe for human consumption due to decay, molding, or bacterial decomposition, or other causes that may be noticed without having to cut the grains open to examine them.

3.3.3.2 Foreign Matter

Foreign matter is organic (plant) and inorganic foreign matter which is not sorghum, other cereals, and filth. Foreign matter shall include loose sorghum seedcoats

3.3.3.3 Filth

Impurities of animal origin.

3.4 Tolerances for Defects

3.4.1 Impurities constituted by grains: 8.0 percent m/m, including:

3.4.1.1 Other cereals and other cultivated plants: 2.0 percent m/m.

3.4.2 Broken grains (nondecorticated grains): 5.0 percent m/m.

3.4.3 Miscellaneous impurities, including: Damaged grains: 0.5 percent m/m.

3.4.3.1 Inorganic matter: 0.5 percent m/m.

3.4.3.2 Filth: 0.1 percent m/m.

3.4.4 Toxic or noxious seeds: Sorghum grains shall be free from toxic or noxious seeds in amounts which may represent a hazard to health.

4. CONTAMINANTS

(To be elaborated).

5. HYGIENE

5.1 It is recommended that the product covered by the provisions of this standard should be prepared in accordance with the appropriate sections of the "Recommended International Code of Practice, General Principles of Food Hygiene" (CAC/PCP 1-1969, Rev.1).

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

5.2.1 Shall, to the extend possible in Good Manufacturing Practice, be free from objectionable matter, having regard to the tolerance indicated in Sub-section 3.4 where applicable;

5.2.2 shall be free from microorganisms, substances originating from microorganisms, or other poisonous or deleterious substances in amounts which may reasonably represent a hazard to health.

6. PACKAGING, [TRANSPORT AND STORAGE]

6.1 Sorghum grains shall be packaged, [transported or stored] in containers which will safeguard the hygienic, nutritional and technological qualities of the product.

6.2 The containers including packaging material shall be made of substances which are safe and suitable for their intended use.

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) [1/] the following specific provisions apply:

7.1 The Name of the Food

The name of the food to be declared on the label shall be "sorghum grains" for whole sorghum grains and "decorticated sorghum grains" for decorticated sorghum grains.

[1/] Thereafter referred to as "General Standard".

7.2 Net Contents

The net contents shall be declared by weight in the metric ("Système International") units in accordance with Section 4.3 of the General Standard.

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

The country shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification (Not applicable to non-retail containers)

Each container shall be permanently marked in code or in clear to identify the packer and the lot.

7.6 Date Marking

The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard.

7.7 Irradiated Foods [1/]

Where prepackaged sorghum grains have been treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard.

7.8 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) the following specific provisions apply to sorghum grains in non-retail containers, as defined by the Codex Alimentarius Commission. (See page .... of the Procedural Manual, 6th Edition).

7.8.1 Information required in Sections 7.1 to 7.4, and 7.6 shall either be given on the container or in accompanying documents, except that the name of the product and name and address of the manufacturer or packer shall appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.8.2 Where sorghum grains in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983). [2/]

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

8.1.1 ISO 950-1979 Cereals - Sampling (as grain).
Additional Methods:
AACC 64-70A - Wheat and Whole Grains

AACC 64-50 sampling of Feeds and Feed Stuffs
AOAC 14th Ed. (1984) 7.001 Bag Sampling.

8.2 Determination of Moisture

8.2.1 ISO 6540-1980 - Maize - Determination of moisture content (on milled grains and on whole grains) (Type I method).

1/ See para. 53.

2/ See paras 53 and 55.

8.3 Ash

8.3.1 ICC 104 Method for the determination of ash in cereals and cereal products (Ashing at 900 C).

8.3.2 ISO 2171-1980 Cereals, pulses and derived products - Determination of ash. Method A is stated to be equivalent to ICC 104.

8.4 Crude Fibre

8.4.1 ICC 113 Determination of crude fibre value.

8.4.2 ISO 6541-1981 Agricultural food products - Determination of crude fibre content - Modified Scharrer method. Identical to ICC 113.

8.5 Determination of Protein

8.5.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and for Feed. Selenium copper catalyst (Type II method).

8.6 Fat

8.6.1 AOAC 14th Ed. (1984) - 14.066, 7.061 Crude Fat or Anhydrous Ether Extract (Type I method).

8.6.2 ISO 5986-1983 - Animal feeding stuffs - Determination of Diethyl Ether Extract. Stated to be equivalent to the AOAC method.

8.7 Tannins

8.7.1 NF V 03-751 Septembre 1985, Norme Française "Sorghum - Determination of Tannin Content". (Type I method).

APPENDIX IV

PROPOSED DRAFT STANDARD FOR SORGHUM FLOUR (AT STEP 5 OF THE CODEX PROCEDURE)

1. SCOPE

1.1 This standard applies to sorghum flour destined for human consumption as defined inSection 2.1 below.

1.2 This standard does not apply to grits or meal obtained from Sorghum bicolour (L.) Hoench.

2. DESCRIPTION

2.1 Sorghum flour is the product obtained from [decorticated] grains of Sorghum bicolour (L.) Hoench through a process of industrial milling during which the germ is removed to a large extent and the endosperm is comminuted to a suitable degree of fineness to comply with Section 3.2.2.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Essential Composition

Sorghum flour shall conform to the following compositional requirements:

3.1.1 Degree of Extraction

The degree of extraction of the flour shall be between 78 and 81 percent.

3.1.2 Ash

The ash content shall not be less than 0.9 percent m/m and not more than 1.5 percent m/m on a dry matter basis.

3.1.3 Protein Content

Content in protein (N x 6.25) shall not be less than 8.5 percent m/m on a dry matter basis.

3.1.4 Crude Fat

Fat content shall be not less than 2.2 percent m/m and not exceed 4.7 percent m/m on a dry matter basis.

3.1.5 Cellulose Content [1/]

Cellulose content shall be not less than 1.0 percent m/m and not exceed 1.8 percent m/m on a dry matter basis.

3.1.6 Tannin Content [2/]

(To be elaborated).

3.1.7 Colour

Using the method described in Section 8.8 the colour shall be between 18 and 30 units.

1/ The provision for cellulose content was deleted from the Draft Standard for Sorghum Grains (see Appendix III).

2/ A provision for tannin content was introduced in the Draft Standard for Sorghum Grains (see Appendix III).

3.2 Quality Factors

3.2.1 Sorghum flour shall be clean, safe, suitable and of food quality and free from abnormal flavours and odours.

3.2.2 All processing of the sorghum including drying, milling or other treatment of the sorghum, intermediate milling products and the milled sorghum flour shall be carried out in a manner that:

(a) minimizes loss of nutritive value, particularly protein quality;

(b) avoids undesirable changes in technological properties of the sorghum flour.

3.2.3 The moisture content of the product shall be governed by Good Manufacturing Practice. The moisture content of the product shall not exceed 15%.

3.3 Particle Size (Granularity)

Using a standard method of sifting, 100% of the flour shall pass through a sieve the dimension of the mesh of which is: diameter of 0.5 mm for 'fine' flour and diameter of 1 mm for 'medium' flour.

4. CONTAMINANTS

(To be elaborated).

5. HYGIENE

5.1 It is recommended that the product covered by the provisions of this standard should be prepared in accordance with the International Code of Hygienic Practice entitled "Recommended International Code of Practice, General Principles of Food Hygiene"
(CAC/RCP 1-1969, Rev. 1).

5.2 When tested by appropriate methods of sampling and examination the flour shall be:

5.2.1 to the extent possible in Good Manufacturing Practice, free from objectionable matter;

5.2.2 free from micro-organisms, substances originating from micro-organisms or other poisonous deleterious substances in amounts which may reasonably represent a hazard to
health.

6. PACKAGING [TRANSPORT AND STORAGE]

6.1 The product shall be packaged [transported or stored] in containers which will safeguard the hygienic, nutritional, technological and organoleptic qualities of the product.

6.2 The containers shall be made only of substances which are safe and suitable for their intended use. They should not impart any toxic substance or undesirable odour or flavour to the product. Where the Codex Alimentarius Commission has established a standard for any such substance used as packaging material, that standard shall apply.

7. LABELLING

In addition to Sections 2, 3,7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) *1/,* the following specific provisions apply:

1/ Thereafter referred to as "General Standard".

7.1 The Name of the Food

7.1.1 The name of the food to be declared on the label shall be "sorghum flour", the terms or "fine" or "medium", in accordance with Section 3.3, shall appear in close proximity to the name of the food.

7.2 Net Contents

The net contents shall be declared by weight in metric ("Systeme International") units in accordance with Section 4.3 of the General Standard.

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

7.4.1 The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification

7.5.1 Each container shall be permanently marked in code or in clear to identify the packer and the lot.

7.6 Date Marking

7.6.1 The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard.

7.7 Irradiated Foods1/

Where sorghum flour has been treated with ionizing radiation/energy or has been prepared from raw material treated with ionizing radiation/energy, it shall be so labelled in accordance with Section 5.2 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).

7.8 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) the following specific provisions apply to sorghum flour in non-retail containers as defined by the Codex Alimentarius Commission (see page .... of the Procedural Manual, 6th Edition):

7.8.1 Information required in Sections 7.1 to 7.6 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification,and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.8.2 Where sorghum flour in non-retail containers has been irradiated, they shall be labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983). 2/

1/ See para. 53.

2/ See paras 53 and 55.

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

According to:

8.1.1 ISO 2170-1980 - Cereal and pulses - Sampling of milled products.

8.1.2 ICC 130 - Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours and By-Products).

8.1.3 AOAC 14th Ed. (1984) 10.126 - Sampling of Malt 10.159 (Cereal Adjuncts).

8.1.4 AACC 6460 Sampling of Flour, Semolina, and Similar Products; Feeds and Feedstuffs in Sacks.

8.2 Determination of Moisture

According to:

8.2.1 ISO 712-1985 - Cereals and cereal products - Determination of moisture (Routine reference method). (Type II).

8.2.2 ICC 110/1 - Determination of Moisture Content of Cereals and Cereal Products (Reference Method). (Stated to be identical to ISO 712-1985).

8.3 Determination of Granularity

According to:

8.3.1 AOAC 14th Ed. (1984) - 10.162-10.163 - Sorting of Corn Grits, Sieving Method (Ro-Tap sieve machine method or equivalent). (Type I method with sieve specifications as in ISO 3310/1-1982 Test sieves).

8.4 Determination of Ash

According to:

8.4.1 ICC 104 - Method for the determination of ash in cereals and cereal products (Ashing at 900°C). (Type I method).

8.4.2 ISO 2171-1980 - Cereals, pulses and derived products - Determination of ash.Method A is equivalent to ICC 104.

8.5 Determination of Protein

According to:

8.5.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and Feed (Type II Method). Selenium/copper catalyst.

8.6 Determination of Crude Fat

According to:

8.6.1 AOAC 14th Ed. (1984) - 14.066, 7.061 Crude Fat or (Anhydrous) Ether Extract (Type IMethod).

8.6.2 vISO 5986 - Animal feeding stuffs - Determination of diethyl ether extracts – stated to be equivalent to the AOAC Method.

8.7 Crude Fibre

8.7.1 ICC 113 - Determination of Crude Fibre Value.

8.7.2 ISO 6541-1981 - Agricultural food products - Determination of crude fibre content Modified Scharrer method. Identical to ICC 113.

8.8 Colour

Colourimetric Method of Kent Jones using Martin Colour grader.

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APPENDIX V

PROPOSED DRAFT STANDARD FOR DURUM WHEAT FLOUR AND SEMOLINA (Advanced to Step 3)

1. SCOPE

1.1 This standard applies to durum wheat flour and semolina for human consumption prepared from durum wheat (Triticum durum Desf.) which are prepackaged ready for sale to the consumer or destined for use in other food products.

1.2 It does not apply:

- to any product prepared from common wheat (Triticum aestivum L.) or club wheat(Triticum compactum Host.) or mixtures thereof, or to mixtures of these wheats incombination with durum wheat (Triticum durum Desf.).
- to durum wheat flour or semolina for nonfood industrial or animal feed use.

2. DESCRIPTION

2.1 Product Definition

2.1.1 Durum wheat flour and semolina are the products prepared from grain of durum wheat (Triticum durum Desf.) by grinding or milling processes in which the bran and germ are partly removed and the remainder is comminuted to a suitable degree of fineness.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Material

3.1.1 The wheat from which durum wheat flour and semolina are milled shall be of sound and marketable quality.

3.2 Quality Factors - General

3.2.1 The durum wheat flour and semolina and any added ingredients shall be clean, safe, suitable and of food quality.

3.2.2 All processing of the wheat, including drying, milling and other treatment ofwheat, intermediate milling products, and milled durum wheat flour and semolina shall becarried out in a manner that:

(a) minimizes loss of nutritive value, particularly protein quality;

(b) avoids undesirable changes in technological properties of the durum wheatflour and semolina.

3.3 Quality Factors - Specific

3.3.1 Durum wheat flour and semolina shall conform to the following requirements:

3.3.2 Ash (i) Semolina - not more than 0.80% on a 14.0% moisture basis (0.93% on a dry basis).

(ii) Durum wheat flour - not more than 1.40% on a 14.0% moisture basis (1.63% on a dry basis).

3.3.3 Protein - (N x 5.7) shall be not less than 11.0% on a 14.0% moisture basis (12.8%on a dry basis).

3.3.4 Moisture Content - The moisture content of the products shall be governed by good manufacturing practice. [The moisture content shall not exceed 15.0%].

3.4 Nutrients - The addition of vitamins, minerals, and specific amino acids shall be in conformity with the legislation of the country in which the product is sold.

3.5 Particle Size

(i) Semolina - 100% of the product shall pass through a 850 M sieve (#20 USBS wire mesh sieve).

- not more than 3.0% shall pass through a 150 M sieve (#100 USBS wire mesh sieve).

- sieved for 5 minutes on a Ro-Tap sifter or equivalent using asieving aid.

(ii) Durum wheat flour - Not less than 98% of the product shall pass not more than 3.0% shall pass through a 150 M sieve (#100 USBSwire mesh sieve).

- Sieved for 10 minutes on a Rotap sifter or equivalent using a sieving aid.

4. CONTAMINANTS

(To be elaborated).

5. HYGIENE

5.1 It is recommended that the products covered by the provisions of this standard should be prepared in accordance with the Code of Hygienic Practice - General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (CAC/RCP 1-1969, Pev.1).

5.2 When tested by appropriate methods of sampling and examination, the durum wheatflour and semolina shall be: To the extent possible in Good Manufacturing Practice, free from objectionable matter.

5.2.1 Free from microorganisms, substances originating from microorganisms, or other poisonous or deleterious substances, in amounts which may reasonably represent a hazard to health.

6. PACKAGING

6.1 The durum wheat flour and semolina shall be packed and transported in containers which will safeguard the hygienic, nutritional, and technological qualities of the product.

6.2 The containers shall be made only of substances which are safe and suitable for their intended use. They should not impart any toxic substance or undesirable odour or

flavour to the product. Where the Codex Alimentarius Commission has established a standard for any such substance used as packaging material, that standard shall apply.

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) [1/] the following specific provisions apply:

7.1 Name of the Food

7.1.1 The name of the food declared on the label shall be "durum wheat flour" or "semolina" as appropriate in the country where the product is sold. [2/]

7.1.2 In addition thereto, there shall be added any qualifying term required by national legislation in the country where the product is sold (eg., enriched).

7.1.3 The ash yield may be declared in close proximity thereto. This provision does not apply to durum wheat flour or semolina to which has been added chalk (Calcium carbonate)or other constituents with a mineral content level different from that of durum wheatflour or semolina.

7.2 List of Ingredients

7.2.1 A complete list of ingredients shall be declared in accordance with Section 4.2 of the General Standard, except that in the case of added vitamins and added minerals, these shall be arranged as separate groups for vitamins and minerals, respectively, and within these groups the vitamins and minerals need not be listed in descending order of proportion.

7.3 Declaration of Nutritive Value

If vitamins and/or minerals are added to the product, the following information shall be given:

> "The total quantity in the final product of each vitamin and/or mineral added in accordance with Section 3.4.2 for 100 grammes of the food as sold for consumption."

7.4 Net Contents

The net contents shall be declared by weight in metric system ("Système International") units in accordance with Section 4.3 of the General Standard.

7.5 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.6 Country of Origin

The country of origin of the product shall be declared in accordance with Section 4.5 of the General Standard.

[1/] Thereafter called "General Standard".

[2/] In accepting this standard, Governments are requested to indicate the requirement in force in their country.

7.7 Lot Identification

Each container shall be marked in code or in clear to identify the packer and the lot.

7.8 Date Marking and Storage Instructions

The date of minimum durability shall be declared in accordance with Sections 4.7.1. and 4.7.2 of the General Standard.

7.9 Irradiated Foods

Where durum wheat flour or semolina has been prepared from raw material treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard.

7.10 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to durum wheat flour and semolina in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

7.10.1 Information required in Section 7.1 to 7.8 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.10.2 Where durum wheat flour and semolina have been irradiated, they shall be labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

8.1.1 ISO 2170-1980 - Cereals and Pulses - Sampling of Milled Products.

8.1.2 ICC 130 - Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours and By-Products). (Stated to be identical to ISO 2170-1980.

8.1.3 ISO 6644-1981 - Cereals and Milled Cereal Products - Automatic Sampling byMechanical Means.

8.1.4 ICC 138 - Mechanical Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours, and By-Products) (Method for sampling the moving product). Stated to be identical to ISO 6644-1981.

8.1.5 AACC 64-60 - Sampling of Flour, Semolina, and Similar Products: Feeds and Feedstuffs in Sacks.

8.2 Determination of Moisture

8.2.1 ISO 712-1985 - Cereals and Cereal Products - Determination of Moisture Content (Routine reference method). Air oven (Type I).

8.2.2 ICC 110/1 - Determination of Moisture Content of Cereals and Cereal Products - Practical Method. Stated to be identical to ISO 712-1985.

8.3 Determination of Particle Size (Granularity)

8.3.1 AOAC 14th Ed. (1984) - Cereal Adjuncts - Sorting of Corn Grits, Sieving Method 10.162-10.163 (Ro-Tap sieve shaker method or equivalent) (Type I method with the limitation that not less than 98 percent shall pass through a 212 millimicron (No. 70) sieve). (Type I method).

8.4 Determination of Ash

8.4.1 AOAC 14th Ed. (1984) - Cereal Foods - Direct Method, 14.006 (550°C to constant weight) (Type I method).

8.4.2 ISO 2171-1980 - Cereals, Pulses and Derived Products - Determination of Ash. Method B - 550 °C to constant weight. Stated to be identical to AOAC Method.

8.5 Determination of Fat Acidity

8.5.1 AACC 02-01A - Fat Acidity - General Method (Type I Method).

8.6 Determination of Protein

8.6.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and for Feed. Selenium/copper catalyst. (Type II Method).

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APPENDIX VI

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

1. The Ad Hoc AOAC/ICC/ISO Working Group met on March 14,1986at the Food and Drug Administration Building, Washington, D.C. Those in attendance included:

William Horwitz, U. S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, Washington, DC (Observer for the Association of Official Analytical Chemists(AOAC)) Chairman;

Arthur R. Johnson, U. S. Food and Drug Administration, Division of Food Technology, Washington, DC (Observer for AOAC) Recorder;

Edith A. Christensen, American Association of Cereal Chemists (AACC), St. Paul, MN (Observer for AOAC);

Ralph H. Lane, University of Alabama, University, AL (Observer for AOAC);

James F. Lin, U.S. Food and Drug Administration, Division of Food Technology, Washington, DC (Representative from the United States);

Werner Saurer, International Association of Cereal Science and Technology (ICC), Zurich, Switzerland (Observer for ICC);

Etienne Nouat, French Standardization Association (AFNOR) (Observer for the International Organization for Standardization (ISO));

Barbara Dix, FAO Secretariat, Rome, Italy;

James M. Hutchinson, FAO Secretariat, Rome Italy.

2. Purpose

The general purpose of the meeting was to review and recommend methods of analysis and sampling for Cereals and Pulses. The Working Group addressed the following specific items:

A. Methods of Analysis and Sampling for Certain Pulses;

B. Actions of the Codex Committee on Methods of Analysis and Sampling with respect to sampling as they affect the standards for Cereals and Pulses;

C. Updating and correction of applicable sections of the Draft Standards for Wheat Flour, Maize (Corn), Whole (Corn) Meal, Degermed Maize (Corn) Meal, and Maize (Corn) Meal, and Maize (Corn) Grits.

D. Comments regarding a more appropriate method for the determination of Fat Acidity;

E. Methods of Analysis and Sampling for the recent standards for Sorghum Grains and Sorghum Flour, and Durum Wheat Flourand Semolinas.

A. DRAFT STANDARD FOR CERTAIN PULSES

The Report of the Codex Committee on Cereals, Pulses and Legumes (ALINORM 85/29, paragraph 212) stated that the AOAC/ICC/ISO Working Group would continue its work with respect to the Draft Standard for Certain Pulses. The Working Group selected and recommended the following methods of analysis and sampling for Certain Pulses, using, as far as possible, the previously endorsed standards as a model and the Standard given in APPENDIX VI, ALINORM 85/29:

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Moisture Content

ISO 665-1977 - Oilseeds - Determination of moisture and volatile matter content (Type 1)

8.2 Methods of Sampling

ISO 951-1979 - Pulses in bags - Sampling

Additional Methods:

AACC 64-70A - Sampling of wheat and other whole grains (large mass; other than mechanical means)

AACC 6450 Sampling of feeds and feedstuffs (Bagged materials)

AOAC 14th Ed. (1984) 7.001 - Sampling of animal feed (bag sampling)

ISO 950-1979 - Cereals - Sampling (as grain)

ICC 101/1 - Cereals - Sampling as grain (Stated to be identical to ISO 950)

ISO 6644-1981 - Cereals and milled cereal products - Automatic sampling by mechanical means

ICC 120 - Mechanical sampling of grains (Stated to be identical to ISO 6644)

B. ACTIONS OF CCMAS REGARDING SAMPLING

The working group noted that the fourteenth session of CCMAS had not endorsed any of the methods of sampling submitted to it since the general principles of sampling were still under elaboration and would be further considered at the next session of CCMAS. The working group expressed concern at this decision since the sampling provisions submitted were based on sound statistical principles and were extensively used in practice. Furthermore, sampling methods were of great importance in standards for cereals and cereal products already endorsed in view of the influence of sampling on the characteristics of, e.g., moisture content. The working group proposed, therefore, that the sampling provisions be temporarily endorsed.

C. UPDATING AND CORRECTION OF PREVIOUSLY ENDORSED METHODS

The Working Group convened prior to the meeting of the Fourth Session of the Codex Committee on Cereals, Pulses, and Legumes in September, 1984, in Washington, DC to select and recommend methods of analysis and sampling for Wheat Flour, Maize (Corn), Whole Maize (Corn) Meal, Degermed Maize (Corn) Meal, and Maize (Corn) Grits. The Working Group report was included as Appendix VII of ALINORM 85/29 and relevant portions became an integral part of the draft standards.

The recommendations are again presented. Where applicable, corrections have been made to reflect updated references and actions taken by the Codex Committee on Methods of Analysis and Samplng, as endorsed by the Commission. Asterisks indicate comments by the Working Group that require further consideration by the Committee on Cereals, Pulses and Legumes.

DRAFT STANDARD FOR WHEAT FLOUR (APPENDIX II, ALINORM 85/29)

9. METHODS OF ANALYSIS AND SAMPLING

APPENDIX VI

9.1 Sampling

* (See Statement in Section B regarding actions of CCMAS on sampling)

According to:

9.1.1 ISO 2170-1980 Cereals and pulses - Sampling of milled products

9.1.2 ICC 130 - Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours and By-Products). Stated to be identical to ISO 2170-1980.

9.1.3 ISO 6644-1981 - Cereals and milled cereal products -Automatic sampling by mechanical means.

9.1.4 ICC 138 - Mechanical Sampling of Milled Products(Semolinas, Flours, Agglomerated Flours, and By-Products)(Method for sampling the moving product). Stated to be identical to ISO 6644-1981.

9.1.5 AACC 6460 Sampling of Flour, Semolina, and Similar Products: Feeds and Feedstuffs in Sacks."

9.2 Determination of Moisture

According to:

9.2.1 ISO 712-1985 - Cereals and cereal products -Determination of moisture content (Routine reference method).(Air oven (Type I))

9.2.2 ICC 110/1 - Determination of moisture content of cereals and cereal products - Practical method. Stated to be identical to ISO 712-1985.

9.3 Determination of Partical Size (Granularity)

According to:

9.3.1 AOAC 14th Ed. (19e4) - Cereal Adjuncts - Sorting of Corn Grits, Sieving Method 10.162 - 10.163 (Ro-Tap sieve shaker method or equivalent) (Type I method with the limitation that not less than 98 percent shall pass through a 212 millimicron (No. 70) sieve.

9.4 Determination of Ash

According to:

9.4.1 AOAC 14th Ed. (1984) - Cereal Foods - Direct Method, 14.006 (550 degrees C to constant weight) (Type I method)

9.5 Determination of Fat Acidity

* (SEE SECTION D, PAGE 9)

According to:

9.5.1 AOAC 14th Ed. (1984) - 14.069 - 14.072 - Cereal Foods - Fat Acidity (applicable to wheat and corn) (Type I Method).

9.6 Determination of Protein

According to:

9.6.1 ICC 105/1 - Method for the Determination of Crusde Protein in Cereals and Cereal Products for Food and for Feed. Selenium/copper catalyst (Type I method)

* The working group recommended reconsideration of the

* classification of the Kjeldahl method from Type I to

* Type II (with specific factors in each standard) in

* view of the absolute nature of this procedure.

DRAFT STANDARD FOR MAIZE (CORN)
(APPENDIX III, ALINORM 85/29)

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

* (See Statement in Section B regarding actions of CCMAS on sampling)

According to:

8.1.1 ISO 950-1979 Cereals - Sampling (as grain).

8.2 Determination of Moisture

According to:

8.2.1 ISO 6540-1980 - Maize - Determination of moisture content (on milled grains and on whole grains) (Type I method).

DRAFT STANDARD FOR WHOLE MAIZE (CORN) MEAL
(APPENDIX IV, ALINORM 85/29)

9. METHODS OF ANALYSIS AND SAMPLING

9.1 Sampling

* (See Statement in Section B regarding actions of CCMAS on sampling)

According to:

9.1.1 ISO 2170-1980 - Cereal and pulses - Sampling of milled products

9.1.2 ICC 130 - Sampling of Milled Products (Semolinas. Flours, Agglomerated Flours and By-Products).

9.1.3 AOAC 14th Ed. (1984) 10.126 - Sampling of Malt;10.159 (Cereal Adjuncts)

9.1.4 AACC 6460 Sampling of Flour, Semolina, and Similar Products; Feeds and Feedstuffs in Sacks.

9.2 Determination of Moisture

According to:

9.2.1 ISO 712-1985 - Cereals and cereal products -Determination of moisture (Routine reference method). (Type I)

9.2.2 ICC 110/1 - Determination of Moisture Content of Cereals and Cereal Products (Reference Method). (Stated to be identical to ISO 712-1985).

9.3 Determination of Granularity

According to:

9.3.1 AOAC 14th Ed. (1984) - 10.162-10.163 - Sorting of Corn Grits, Sieving Method (Ro-Tap sieve machine method or equivalent). (Type I method with sieve specifications as in ISO 3310/1-1982 Test sieves).

9.4 Determination of Ash

According to:

9.4.1 AOAC 14th Ed. (1984) - 14.006 (550°C to constant weight) (Type I method).

9.5 Determination of Protein

According to:

9.5.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and Feed (Type I Method). Selenium/copper catalyst.

* The working group recommended reconsideration of the
* classification of the Kjeldahl method from
* Type I to Type II (with specific factors in each standard) in
* view of the absolute nature of this procedure.

9.6 Determination of Crude Fat

According to:

9.6.1 AOAC 14th Ed. (1984) - 14.066, 7.061 Crude Fat or Anhydrous) Ether Extract (Type I Method).

* The Working Group suggests that if this standard is
* reconsidered at a future time, ISO 5986-1983 Animal
* feeding stuffs - Determination of diethyl ether
* extract, be reviewed for possible consideration as
* Type I method.

DEGERMED MAIZE (CORN) MEAL AND MAIZE (CORN) GRITS (APPENDIX V, ALINORM 85/29)

9. METHODS OF ANALYSIS AND SAMPLING

9.1 Sampling

* (See Statement in Section B regarding actions of CCMAS on sampling)

According to:

9.1.1 ISO 2170-1980 - Cereal and pulses - Sampling of milled products.

9.1.2 ICC 130 - Sampling of Milled Products (Semolinas ,Flours, Agglomerated Flours and By-Products).

9.1.3 AACC 6460 Sampling of Flour, Semolina and Similar Products; Feeds and Feedstuffs in Sacks.

9.2 Determination of Moisture

According to:

9.2.1 ISO 712-1985 - Cereals and cereal products -Determination of moisture content (Routine reference method).Air oven method (Type I).

9.2.2 ICC 110/1 - Determination of Moisture Content of Cereals and Cereal Products (Reference Method). Stated to beidentical to ISO 712-1985.

9.3 Determination of Granularity

According to:

9.3.1 AOAC 14th Ed. (1984) - 10.162 - 10.163 Sorting of Corn Grits, Sieving Method (Ro-Tap sieve machine method or equivalent). (Type I method with sieve specifications as in ISO 3310/1-1982 Test sieves).

9.4 Determination of Ash

According to:

9.4.1 AOAC 14th Ed. (1984) - 14.006 (Direct Method) (550°C to constant weight) (Type I method).

9.4.2 ISO 2171-1980 - Cereals, pulses and derived products - Determination of ash. Method B - 550°C to constant weight. Stated to be identical to AOAC method 14.006.

9.5 Determination of Protein

According to:

9.5.1 ICC 105/1 - Method for the Determination of CrudeProtein in Cereals and Cereal Products for Food and for Feed (Type I method) Selenium/copper catalyst.

* The working group recommended reconsideration of the

* classification of the Kjeldahl method from Type I to

* Type II (with specific factors in each standard) in

* view of the absolute nature of this procedure.

9.6 Determination of Crude Fat

According to

9.6.1 AOAC 14th Ed. (1984) - 14.066, 7.061 Crude Fat or (Anhydrous) Ether Extract (Type I method).

* The Working Group suggests that if this standard is

* reconsidered at a future time, ISO 5986-1983 Animal

* feeding stuffs - Determination of diethyl ether

* extract, be reviewed for possible consideration as the

* Type I method.

D. FAT ACIDITY (SEC. 9.5, APPENDIX II, ALINORM 85/29 et al.)

The Working Group had no opinion on the quality factor which was to be measured under the attribute "Acidity" in Wheat Flour and the corresponding determination in Maize (Corn) products as this was a matter for decision by the Codex Committee itself.

The standard specifies as the method of determination Fat Acidity, AOAC 14th Ed. (1984) 14.069 - 14.072, the values for fat acidity to be expressed as milligrams of potassium hydroxide required to neutralize the free fatty acids extracted from 100 grams of product (on a dry basis), as required by the original standard.

The AOAC method cited uses petroleum ether as the first extract. After evaporation, the residue is dissolved in bezene/alcohol/ phenolpthalein and titrated with potassium hydroxide. The similar AACC 02-01 method also uses petroleum ether and benzene/alcohol. However, there has been some objection raised to the use of benzene as an extracting solvent. To overcome this objection, AACC 02-01A uses toluene as the solvent. Toluene gave results comparable to benzene (Cereal Foods World 29, 265 (1984)). Therefore, AACC0201A General Method is now recommended as the Type 1 method for fat acidity.

An additional method, ISO 7305-1986, describes a method for Fat Acidity in wheat flour and durum semolina. This method employs ethanol as the extractant with centrifuging to obtain a clear solution for titration with sodium hydroxide. The results are expressed as mg of KOH or as grams of sulfuric acid per 100 g af dry matter. No data is available to compare the results of the new ISO method with those obtained by the AACC Type I method.

E. NEW WORK ON RECENT STANDARDS

The Working Group considered applicable methods of analysis for sorghum as grain and as flour, and the methods of durum wheat flour and semolina. The Working Group recommends the use of the corresponding methods for corn and corn meal and for wheat flour, respectively. The standards for sorghum and sorghum flour, however, require additional methods to distinguish the whole grain from the decorticated commodities.

I. DRAFT STANDARD FOR SORGHUM GRAINS (Page 35, ALINORM 85/28A, Circulated by Chairman, Jan. 28, 1986)

8.1 Sampling

(See Statement in Section B regarding actions of CCMAS on sampling)

According to:

8.1.1 ISO 950-1979 Cereals - Sampling (as grain).

Additional Methods:

AACC 64-70A - Wheat and Whole Grains

AACC 6450 Sampling of Feeds and Feed Stuffs

AOAC 14th Ed. (1984) 7.001 Bag 8.2 Sampling

8.2 Moisture

8.2 Determination of Moisture

According to:

8.2.1 ISO 6540-1980 - Maize - Determination of moisture content (on milled grains and on whole grains) (Type I method).

8.3 Ash

According to:

8.3.1 ICC 104 Method for the determination of ash in cereal and cereal products (Ashing at 900°C)

8.3.2 ISO 2171-1980 Cereals, pulses and derived products -Determination of ash. Method A is stated to be equivalent to ICC104.

The Working Group requests comments on whether the higher silica content of sorghum requires a higher ashing temperature than for other grains.

8.4 Crude Fiber

8.4.1 ICC 113 Determination of crude fiber value

8.4.2 ISO 6541-1981 Agricultural food products – Determination of crude fiber content - Modified Scharrer method. Identical to ICC 113.

8.5 Determination of Protein

According to:

8.5.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and for Feed. Selenium/ copper catalyst (Type II method).

8.6 Fat

According to:

8.6.1 AOAC 14th Ed. (1984) - 14.066, 7.061 Crude Fat or Anhydrous Ether Extract (Type I method)

8.6.2 ISO 5986-1983 - Animal feeding stuffs - Determination of Diethyl Ether Extract. Stated to be equivalent to the AOAC method

DRAFT STANDARD FOR SORGHUM FLOUR
(Page 35 ALINORM 85/28A, Circulated by Chairman, Jan. 28, 1986)

The methods recommended and accepted for Corn Meal are applicable to this standard.

9. METHODS OF ANALYSIS AND SAMPLING

9.1 Sampling

According to:

9.1.1 ISO 2170-1980 - Cereal and pulses - Sampling of milled products

9.1.2 ICC 130 - Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours and By-Products).

9.1.3 AOAC 14th Ed. (1984) 10.126 - Sampling of Malt 10.159(Cereal Adjuncts)

9.1.4 AACC 6460 Sampling of Flour, Semolina, and Similar Products; Feeds and Feedstuffs in Sacks.

9.2 Determination of Moisture

According to:

9.2.1 ISO 712-1985 - Cereals and cereal products -Determination of moisture (Routine reference method). (Type II).

9.2.2 ICC 110/1 - Determination of Moisture Content of Cereal sand Cereal Products (Reference Method). (Stated to be identicalto ISO 712-1985).

9.3 Determination of Granularity

According to:

9.3.1 AOAC 14th Ed. (1984) - 10.162-10.163 - Sorting of Corn Grits, Sieving Method (Ro-Tap sieve machine method or equivalent). (Type I method with sieve specifications as in ISO 3310/1-1982 Test sieves).

9.4 Determination of Ash

According to:

9.4.1 ICC 104. - Method the determination of ash in cereals and cereal products (Ashing at 900°C) (Type I method).

9.4.2 ISO 2171-1980 Cereals, pulses and derived products -Determination of ash. Method A is equivalent to ICC 104.

9.5 Determination of Protein

According to:

9.5.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and Feed (Type II Method). Selenium/copper catalyst.

9.6 Determination of Crude Fat

According to:

9.6.1 AOAC 14th Ed. (1984) - 14.066, 7.061 Crude Fat or(Anhydrous) Ether Extract (Type I Method).

9.6.2 ISO 5986 - Animal feeding stuffs - Determination of diethyl ether extracts - stated to be equivalent to the AOAC method.

9.7 Crude Fiber

9.7.1 ICC 113 Determination of Crude Fibre Value

9.7.2 ISO 6541-1981 Agricultural food products -Determination of crude fiber content - Modified Scharrer method. Identical to ICC 113.

9.8 Color

Colorimetric Method of Kent Jones using Martin Color grader

The Working Group requires a definite reference and support data for this cited method of analysis.

DURUM WHEAT FLOUR AND SEMOLINA (CX/CPL 86/7)

(Methods essentially identical to those recommended for Wheat Flour)

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

According to:

8.1.1 ISO 2170-1980 Cereals and pulses - Sampling of milledp roducts.

8.1.2 ICC 130 - Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours and By-Products). Stated to be identical to ISO 2170-1980.

8.1.3 ISO 6644-1981 - Cereals and milled cereal products -Automatic sampling by mechanical means.

8.1.4 ICC 138 - Mechanical Sampling of Milled Products (Semolinas, Flours, Agglomerated Flours, and By-Products)(Method for sampling the moving product). Stated to beidentical to ISO 6644-1981.

8.1.5 AACC 6460 Sampling of Flour, Semolina, and Similar Products: Feeds and Feedstuffs in Sacks.

8.2 Determination of Moisture

According to:

8.2.1 ISO 712-1985 - Cereals and cereal products -Determination of moisture content (Routine reference method).(Air oven (Type I))

8.2.2 ICC 110/1 - Determination of moisture content of cereals and cereal products - Practical method. Stated to beidentical to ISO 712-1985.

8.3 Determination of Particle Size (Granularity)

According to:

8.3.1 AOAC 14th Ed. (1984) - Cereal Adjuncts - Sorting of Corn Grits, Sieving Method 10.162 - 10.163 (Ro-Tap sieve shaker method or equivalent) (Type I method with the limitation that not less than 98 percent shall pass through a 212 millimicron (No. 70) sieve). (Type I method)

8.4 Determination of Ash

According to:

8.4.1 AOAC 14th Ed. (1984) - Cereal Foods - Direct Method,14.006 (550°C to constant weight) (Type I method)

8.4.2 ISO 2171-1980 - Cereals, pulses and derived products -Determination of ash. Method B - 550°C to constant weight.Stated to be identical to AOAC method.

8.5 Determination of Fat Acidity (NEEDED?)

According to:

8.5.1 AACC 02-01A - Fat Acidity - General Method (Type I Method).

* (SEE SECTION D, PAGE 9) 8.6.

8.6 Determination of Protein

According to:

8.6.1 ICC 105/1 - Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and for Feed. Selenium/copper catalyst (Type II method)

SORGHUM GRAIN AND FLOUR

Tannins.

According to:

NF V 03-751 Septembre 1985 Norme Francaise "Sorghum -Determination of Tannin Content." (Type I Method).

According to the table of results, this spectrophotometric method is satisfactory for the determination of tannin contents greater than approximately 0.5%.

ALINORM 87/29
APPENDIX VII

PROPOSED AMENDMENTS TO THE CODEX STANDARD FOR WHEAT FLOUR SECTION 3.3.3 - FAT ACIDITY [1/] (ALINORM 85/29, APPENDIX II)

3.3.3 Fat Acidity - not more than 50 mg of KOH required to neutralize the free fatty acids in 100 grammes flour on dry matter basis.

ALINORM 87/29
APPENDIX VIII

MATTERS RELATED TO SECTION 4 (FOOD ADDITIVES) OF THE CODEX STANDARD FOR WHEAT FLOUR (ALINORM 85/29, APPENDIX II)[2/]

PART I

PROVISIONS FOR FOOD ADDITIVES RESUBMITTED TO CCFA FOR ENDORSEMENT

The Committee requested CCFA to consider the following provisions [3]/ with a view towards endorsing them for inclusion in the Codex Standard for Wheat Flour, having regard to the technological justification provided in Appendix IX to this Report:

4.2 Flour Treatment Agents

		Maximum Level	Maximum Level of Use
4.2.1 - 4.2.4	Unchanged		
4.2.5	Monocalcium phosphate	2500 mg/kg	
4.2.6	Azodicarbonamide		45 mg/kg
4.2.7	Potassium bromate		50 mg/kg

PART II

PROPOSED AMENDMENTS TO SECTION 4 OF THE CODEX STANDARD FOR WHEAT FLOUR [4]/

		Maximum Level	Maximum Level of Use
4.1	Enzymes		
4.1.1 - 4.1.2	Unchanged		
4.1.3	Fungal Amylase from Aspergillus Oryzae	GMP	
4.1.4	Proteolytic Enzymes from Aspergillus Oryzae	GMP	

1/ See also paras 62-80 of this Report.

2/ See also paras 141 to 147 of this Report and Appendix IX.

3/ See para. 141 for revised list of food additives in the Codex Standard for Wheat Flour.

4/ Provided the Commission approves that the amendment procedure be initiated, the amendments below should be sent to governments for comments at Step 3 of the Procedure.

		Maximum Level	Maximum Level of Use
4.2	Flour Treatment Agents		
4.2.1 – 4.2.7	Unchanged		
4.2.8	Benzoyl peroxide		60 mg/kg
4.2.9	Chlorine dioxide		30 mg/kg
4.2.10	Chlorine		2500 mg/kg

TECHNOLOGICAL JUSTIFICATION FOR THE USE OF CERTAIN FOOD ADDITIVES IN WHEAT FLOUR

INTRODUCTION

At its 18th Session the Codex Committee on Food Additives (CC/FA) postponed endorsement of certain food additive provisions in the Draft Standard for Wheat Flour prepared by the Codex Committee on Cereals, Pulses and Legumes (CC/CPL). In particular, the CC/FA postponed endorsement for two flour improvers (Azodicarbonamide and Potassium bromate) with the comment that there was no technological need for these substances and asked the CC/CPL to reconsider these additives in relation to their technological need in products for which they are intended. The CC/FA postponed endorsement of monocalcium phosphate with the comment that the ADI might be exceeded if the maximum level were maintained at 2500 mg/kg. The CC/FA was of the opinion that certain flour improvers and bleaching agents were food additives, rather than processing aids as concluded by the 4th Session of CC/CPL, and the CC/FA requested the CC/CPL to specify the specific categories of flour which will contain these additives. Furthermore, for benzoyl peroxide the CC/FA asked the CC/CPL to reconsider the maximum limit of 100 mgAg in view of the opinion of the 7th JECFA. It is the intention of this report to respond to the CC/FA's questions on technological need and safe use of the additives described above.

Azodicarbonamide & Potassium Bromate
(Sections 4.2.6 and 4.2.7 in Appendix VIII to this Report)

Attached to this document are technological justifications submitted previously to the CCFA: Appendices VIII and IX to ALINORM 85/29 submitted to the 18th CCFA (Annex 1), Appendix VIII to ALINORM 83/29 submitted to the 16th CCFA (Annex 2), and Annex 3 which contains information submitted by the USA Delegation to the 5th CC/CPL. In Annex 1 the CC/CPL describes the specific benefits to be derived from use of Azodicarbonamide and Potassium bromate. The CCFA should note in (2) that flour improving additives may be used in synergistic combinations to reduce the total quantity of additives in baked goods. Furthermore, the usual amounts added may not be at the maximum permitted by the Codex Standard. For example, the USA reports in (3) that typical use levels are 4 to 8 mgAg for Azodicarbonamide and 10 mgAg for Potassium bromate and only in a few very specialized food products did wheat flour require 50 mgAg treatment level of Potassium bromate. The CCFA should also note that the CCCPL is not requesting baking ingredients which may be added separately to dough, but the Committee requests only those ingredients used in prepared flours which move in international commerce.

The CCFA should note that the JECFA reviews of Azodicarbonamide (9th Report), and Potassium bromate (27th Report) recognized treatment levels for these agents in the absence of any toxicological experiment(s) by which an exaggerated dosage and application of a safety factor would permit computation of an Acceptable Daily Intake (ADI). At the low levels of addition to flour, there is insufficient oxidative power to significantly change nutritional quality of the flour and the only remaining public health question is the residual levels of unreacted Azodicarbonamide and Potassium bromate in flour. For both additives the residual amounts are not analytically detectable in wheat flour after processing. Even if one computed a hypothetical additive intake, these values would be small relative to intake of other additives. For example, the USA computed potential additive intakes from usage information in a 1977 Survey of food processors sponsored by the US Food and Drug Administration (USFDA). The mean intake of Azodicarbonamide if it did not react with flour would be 35 micrograms/person/day and the mean intake of Potassium bromate, from all uses including direct addition to bread and if it were not converted to bromide, would be 91 micrograms/person/day. In both calculations residual levels of each additive were assumed to be at the typical treatment levels.

Monocalcium Phosphate
(Section 4.2.5 in Appendix VIII to this Report)

The CCFA postponed endorsement of this additive with the opinion that the maximum level of 2500 mg/kg was too high and that the ADI might be exceeded. The 26th JECFA allocated a Maximum Tolerable Daily Intake (MTDI) for total phosphates in the diet, both naturally occurring and from additives, of 70 mg/kg body weight. The MTDI is further qualified that it "... applies to diets ... nutritionally adequate in respect to calcium ..." and "... if the calcium intake were abnormally high, the intake of phosphates could be proportionately higher than ... (the MTDI) ... and the reverse relationships would also apply". The CCCPL observes that, since monocalcium phosphate contains both calcium and phosphate ions, use of this additive should not significantly alter the calcium to phosphorus ratio in the diet. Consequently the body burden of excess phosphorus substances in the diet, on which the phosphate MTDI is based, cannot occur for monocalcium phosphate.

Technological justification for monocalcium phosphate in wheat flour is included in Annex 1. The CCFA should note that monocalcium phosphate has dual purposes in wheat flours: yeast stimulant (via pH modification and source of phosphate) and raising agent. The CCCPL received technical data to justify the maximum level of 2500 mg/kg from several governments. In Annex 3 the USA reports that flours containing 2500 mg/kg have limited use in that nation for manufacture of a regional delicacy. At the 5th CCCPL Australia reported that monocalcium phosphate is a permitted additive in flour for bread making in Australia at the maximum permitted level of 7 gAg (7000 mg/kg). Information on the need to have high levels of acid calcium phosphate in flour is being sought within Australia.

Bleaching Agents

The CCCPL notes the opinion of the 18th CCFA that certain flour treatment agents are food additives rather than processing aids, based on the fact that the effect of the additives was continuous. In view of the CCFA's opinion, the flour treatment agents formerly designated as processing aids have been reestablished in the food additive provisions of the Draft Standard for Wheat Flour. Furthermore, the CCFA should note that the three additives: benzoyl peroxide, chlorine and chlorine dioxide, which were previously listed as bleaching agents are listed in Section 4.2 (Flour Treatment Agents). The CCCPL concludes the bleaching effect of chlorine and chlorine dioxide is secondary to their primary effect of improving characteristics of flour for certain baking purposes. (See Annex 1).

Information on technological justification for the three flour treatment/bleaching agent additives are included in the Annexes. To supplement information in the Annexes the CCCPL emphasizes the following facts:

Benzoyl peroxide. Technological justification data were supplied by several delegations at the 4th CCCPL (Annex 1). The technical effect of benzoyl peroxide is accelerated aging of flour by a simulation of the natural aging process. Natural aging of flour occurs due to the presence of endogenous peroxidase enzymes in wheat flour. After considering technical data from various countries, the CCCPL revised the maximum level to 60 mg/kg, which is less than the maximum treatment level approved by the 7th JECFA for special purposes, 75 mg/kg.

Chlorine dioxide. Technological justifications are provided in Annexes 1 and 2. Maximum use level is established at 30 mg/kg. The 7th JECFA approved usual use levels of 0 to 30 mg/kg and approved maximum use levels of 30 to 75 mgAg for special purposes.

Chlorine. Technical justification is provided in Annex 1, the maximum use level now practiced is 2500 mg/kg. In the experience of the USA typical treatment levels are 500 to 1200 mg/kg, and use levels near 2500 mgAg are needed for specialty flours used in manufacture of sponge cakes. Chlorine treatment of flour was on the agenda of the 29th JECFA (1985), however, the Report of the 29th JECFA was not available for consideration by the 5th CCCPL.

List of Food Additives in the Draft Standard for Wheat Flour

At Sessions of the CC/CPL (and apparently at the 18th CC/FA) there were concerns expressed relative to the long list of food additives in the Standard. In particular several governments expressed the principle that no flour improvers were permitted in their country and on this basis they objected to the long list of food additives permitted in Codex Standard Wheat Flours. The CC/CPL finds itself in the position of resolving differences between several varied traditional technological practices, each of which has

been developed over a long period of time in each country. The consumers of each member nation expect baked goods prepared according to their traditional baking procedures using their traditional wheat flour ingredients. Some of the traditional foods and wheat flour ingredients, therein, are prepared with flour improvers which change the characteristics of raw wheat flour to suit the prepared food. It is the intention of the CC/CPL to elaborate a standard for wheat flours which will incorporate all flour treatment additives which are in wheat flours actively involved in international commerce and which are safe for the intended use. If there are wheat flours treated with certain additives which are permitted in some (but not all) member nations, the CC/CPL cannot arbitrarily restrict the list of Codex permitted additives because the wheat flours treated with these additives are important trading commodities to those governments which permit their use.

Some governments view the long list of additives as indicating that sane wheat flours will contain all of the permitted additives. In actual fact any particular wheat flour will contain at most two or three additives and many flours will contain no flour improving additives at all. Some of the flour improving additives were developed separately in different countries to produce wheat flours possessing approximately the same properties. For example, the UK extensively uses chlorine dioxide, whereas the USA uses very little chlorine dioxide, but uses chlorine and potassium bromate to obtain the same types of flours as in the UK. In general, wheat flours treated with synergistic combinations of flour improving additives are often used to produce specialty baked goods which have comparatively low rates of consumption. Factors such as those described above indicate that dietary intakes of flour improving additives should be very low on the long term basis. Indeed, considerations such as these led the JECFA to approve the subject additives at the OC/CPL's recommended use levels for Azodicarbonamide, Potassium bromate, Benzoyl peroxide, Chlorine dioxide, and Chlorine; furthermore, JECFA's discussion of the MIDI for total phosphates indicates Monocalcium phosphate may be safely used.

Based on the foregoing discussion the CC/CPL requests that CC/FA endorse the food additive provisions for the subject additives in our Draft Standard for Wheat Flour.

Labelling

The 18th CC/FA asked the CC/CPL to reconsider use of certain additives in relation to their technological need' in products for which they are intended. The implication of the request is that flours containing certain additives should be restricted to limited use and should be appropriately labelled for such use. The CC/CPL considered several aspects of this request.

The CC/CPL had previously considered whether the intended uses of certain food additives were in wheat flours or in baking mixes (which are not within the scope of the Draft Standard for Wheat Flour). The CC/CPL is satisfied that the list of food additive provisions in the Draft Standard represent those types of wheat flour which the member nations consider to be Wheat Flour, per se, and that uses for additives directly added during baked goods manufacture are not encompassed by the Draft Standard (see Annexes 1 and 2).

The CC/CPL considered whether worldwide usage of certain additives were technologically limited to certain baked goods. After considering the variety of food products prepared from each additive treatment among the member nations, the CC/CPL concludes that restrictions on use of additives in wheat flours cannot be accomplished. That is, the list of use restrictions would be so lengthy for each food

additive provision that there would be no actual limitation on usage. The CC/CPL is of the opinion that consumer dietary consumption patterns within each member nation will sufficiently restrict intake of treated flours to those levels considered safe by the JECFA.

The CCCPL also considered labelling provisions from the perspective of impact on the wheat flour purchaser, at both the food processing level and retail consumer level. The General Standard for the Labelling of Prepackaged Foods adopted by the Commission permits "flour improvers" to be listed by class name. The CCCPL notes that CCFA has not concurred with this class name and there may be some revision of the class name(s) for flour treatment agents. Regardless of the specific class name which is finally incorporated in the General Standard for Labelling of Prepackaged Foods, the flour improving additives used in any particular Codex Standard for Wheat Flour would be designated by specific chemical name or identifying number in addition to a class name.

ALINORM 85/29
APPENDIX IX
Annex 1

REPORT ON THE AD-HOC WORKING GROUP ON FOOD ADDITIVES IN THE DRAFT STANDARD FOR WHEAT FLOUR

1. An Adhoc Working Group was convened under the Chairmanship of Dr. R.J. Harding(United Kingdom) with Dr. D. Murphy (Australia) acting as Rapporteur. The following delegations took part: Australia, Argentina, Brazil, Finland, France, Gabon, Federal Republic of Germany, Greece, Japan, Madagascar, The Netherlands, Spain, Thailand, the United Arab Republic, the United Kingdom, the United States of America, the International Standards Organization and the International Association of Cereal Science and Technology. Representatives of the FAO Secretariat were in attendance.

2. The Chairman outlined the state of affairs faced by the Group. The Committee at its 3rd Session had agreed to a list of food additives for flour treatment with accompanying maximum levels of use where appropriate, and also a paper outlining the technical justification for food additives, (ALINORM 83/12A, paras 90-98), which endorsed only three of the additives: L-ascorbic acid up to a level of 200 mg/kg; L-cysteine hydrochloride up to a level of 90 mg/kg; and sulphur dioxide up to a level of 90 mg/kg for flour destined for the manufacture of biscuits and pastry only.

3. The Chairman of the Committee, Mr. Galliart, had circulated a letter to Codex Contact Points asking interested countries to submit additional data in support of the additives not endorsed by the CCFA. Written replies had been received from the Netherlands and Switzerland, and these were considered by the Working Group. Mr. Galliartalso proposed that the Working Group should determine whether:

(a) some of the additives are in fact "processing aids";

(b) whether some additives should be limited for use only in certain types of flour; and

(c) what improvements can be made in the "Technical Justification" documentto be resubmitted to the CCFA.

4. The Working Group considered all the flour treatment agents and in each case addressed the questions in Mr. Galliart's letter. The Codex definition of a processing aid, and in the Codex Procedural Manual (p. 30, 5th Ed.) was available for reference. The Group was informed of the important distinction drawn in Codex standards between additives which remained in the final product (expressed as "maximum level") and

additives for which treatment levels were prescribed (expressed as "maximum level of use"). Certain flour treatment agents for which JECFA had established maximum treatment levels (benzoylperoxide, chloride dioxide, potassium bromate and azodicarbonamide) fall into the latter category.

5. Benzoyl Peroxide - Several delegations provided information on the use of this additive as a bleaching agent in their countries. Flours destined for all food purposes were treated, and although the actual levels used differed from country to country, agreement was reached on a maximum level of 60 mg/kg. The Working Group was informed that it reacts immediately and completely with flour, leaving a residue of benzolc acid. It therefore fell within the Codex definition of a processing aid and could be considered as such.

6. Chlorine Dioxide - The countries in which the use of chlorine dioxide was permitted indicates that it performed primarily as an improving agent for flours destined for bread making, and it had only a secondary, incidental bleaching effect. It was agreed therefore that it should be considered as a flour improver and not as a bleaching agent. A maximum level of 30 mg/kg was confirmed as appropriate and necessary, and its mode of action and effect made it suitable for yeast raised bakery products only. Although it was not permitted in that country, France was able to provide technical information on its action on flour. Technical experts in the USA Delegation confirmed that it reacted immediately and completely with flour leaving a chloride residue and so fulfilled no technological purpose in the final product. It could, therefore, be regarded as a processing aid under the Codex definition.

7. Chlorine - The Working Group noted that this flour treatment agent had not yet been evaluated by JECFA. The countries in which its use is authorized confirmed its levels of use up to 2500 mg/kg. These levels were necessary to produce the desired aging effect on the flour. Its bleaching effect was secondary and so, like chlorine dioxide, it should be considered as a flour improver. They further confirmed that its use was restricted to flours for the manufacture of high ratio cakes. Technical information, submitted by the USA delegation, indicated that it reacted completely and immediately with flour and therefore could be regarded as a processing aid.

8. L-Ascorbic Acid - The CCFA had endorsed this flour treatment agent up to 200mg/kg. The French delegate informed the Working Group that it was the only flour treatment agent permitted in France where it was used up to a level of 300 mg/kg. The Working Group agreed to refer this request to the Plenary.

9. Azodicarbonamide - Technical information from Brazil, USA, UK and Australia confirmed the need of this improving agent for increasing the strength of bread making flours at a level of 45 mg/kg. It remains inactive until water is added in the bread making process and therefore cannot be regarded as a processing aid.

10. Potassium Bromate - The Working Group noted that JECFA had, at its 27th Session, decided to change the previous acceptance of bromate for the treatment of flour used for bakery products to a temporary acceptance with a maximum treatment level of 75 mg/kg, provided that bakery products prepared from such treated flour contain negligible residues of potassium bromate. Technical information from the USA and the UK confirmed the need of this flour treatment agent in breadmaking up to a level of 50 mg/kg, depending on the type of flour and bread required. The UK and the Netherlands informed the Working Group of a small use in some biscuits and rusks, and consequently the Group felt able to restrict its use, as did JECFA in its evaluation, to

bakery products. The Group formed the view that, as it is inactive until water is added to the flour, it cannot be regarded as a processing aid.

11. Sulphur Dioxide - The Group noted that the use of sulphur dioxide had been endorsed by the CCFA in flour for biscuit and pastry manufacture at a level of 200 mg/kg. The Netherlands raised the question of the inclusion of metabisulphite salts in this category. Bearing in mind the current practice of treating flour with sulphur dioxide gas only, while metabisulphite salts are only added by the baker, the Group agreed not to seek in addition the endorsement for metabisulphite salts.

12. Monocalcium Phosphate - The Group noted the concern of the CCFA regarding this additive, that the proposed maximum level of use of 2500 mg/kg might result in exceeding the maximum tolerable daily intake of phosphate (0-70 mg/kg bodyweight). Technical information from the UK, Spain and the USA confirmed the levels of use in all flours of upto 2,500 mg/kg, as a yeast stimulant and pH modifier. The Chairman noted that no information had been put forward to overcome the main CCFA objection.

13. Fungal Amylases - Technical information from Brazil, France, the UK and the USA indicated that amylases from Aspergillus niger and Aspergillus oryzae were used in breadmaking to supplement the amylases naturally found in flour. The Group noted that JECFA had not given an ADI to either enzyme, and recognized that since enzymes were active in the dough making process, they could not be regarded as processing aids.

14. Proteolytic Enzymes - The Group was informed that proteolytic enzymes from Aspergillus oryzae and Bacillus subtilis were used in biscuit flours. The protease from Bacillus subtilis had been given an ADI (limited by GMP) by JECFA.

15.Lecithin - The Netherlands and the FRG repeated their request for the inclusion of lecithin in the list of food additives, bearing in mind its important role in preparing flours with a rheological optimum. The Group noted this and referred the request to the Plenary.

16. Labelling - The Group recommended that special attention should be paid to labelling. If the distinction was made between food additives and processing aids, processing aíds would not have to be included in the list of ingredients. If the use of certain food additives was restricted to flours with a specified end use (e.g. breadmaking) there might be a need for an appropriate Indication on the label.

Appendix IX
Annex I

TECHNOLOGICAL JUSTIFICATION FOR THE USE OF FOOD ADDITIVES IN WHEAT FLOUR

1. All over the world wheat flour is used as the major ingredient for the production of numerous bakery products, from bread to cakes, biscuits, etc. Each of these products requires flour with certain qualities in order to meet the standards demanded by the consumer. Additives are used extensively to enable the flour to meet these required technological qualities. Further, the wide variability in flour quality, the type of bakery product, the processing method, and the legislation and customs prevalent in each individual country are important factors governing their use. The additives discussed below and cited in Section 4 of the draft Standard for Wheat Flour include those which are used by industry to upgrade or improve the technical performance of certain types of flour which otherwise would have unsuitable baking or dough handling properties.

2. The technological quality of commercial flour depends on the wheat variety, environmental conditions prevalent during the growing of the wheat, the method of milling and the extraction rate. These factors should directly influence the end use to which the flour is put. However, even with an appropriate choice, which is often difficult for technical, commercial, economic or political reasons, differences in baking quality between batches of flour are inevitable. Additives are instrumental in minimizing these differences.

3. The use of additives in bread production has made possible a reduction in processing time, and an increase in production rate(with consequential reduction in costs) without sacrificing quality. Indeed, additives have played such a major role in the development of modern breadmaking processes that the mass production of bread by these processes is simply not practicable without them.

4. It should be noted that all of these additives could be used directly at the dough mixing stage. They are, in practice, added to flour at the mill since this is the most convenient and practicable stage enabling a degree of control over their addition not attainable at a later stage.

5. Fungal Amylase. The use of alpha amylase standardizes the fermentation characteristics of bread flour where natural variation of cereal alpha amylase occurs. Alpha amylases from fungal sources are more thermally labile than that from malt (the traditional alternative) and therefore are inactivated rapidly during baking, and will not remain to damage the starch structure of the breadcrumb. A further advantage is that they are available relatively free from proteases (again, unlike malt) and will not affect the protein structure of the dough.

6. Proteolytic enzymes. The addition of proteolytic enzymes to dough allows a controlled and gentle modification of protein quality in the manufacture of crackers and similar products. The strength of the dough is modified leading to an improvement in extensibility and machine handling properties.

7. L-Ascorbic acid. L-ascorbic acid has long been used as an agent to increase the rate of dough development in breadmaking. Actuallevels of addition vary up to a maximum of 300 mg/kg. In some countries it is used as the sodium or potassium salt.

8. Azodicarbonamide. Azodicarbonamide is a widely used oxidizing agent which directly affects the rheological properties of the dough during mixing and fermentation leading to improved resistance to extension and therefore to better gas retention capacity. Levels of use depend on the intrinsic strength of the flour and the process, but different authorities appear to agree on a maximum level of 45 mg/kg.

9. Potassium bromate. Potassium bromate has been used as anoxidizing agent in breadmaking since the early years of modern bread production. It6 mode of action is similar to that of azodicarbonamide, except that it is active mainly at the baking stage when it becomes transformed to potassium bromide. It is found to be useful not only in breadmaking but also in other fermented bakery products. Levels of use vary as with azodicarbonamide, but the maximum treatment level is 50 mg/kg.

10. Monocalcium phosphate. Although it is included in the list of flour improvers, its main use (up to 2,500 mg/kg) is as a yeast stimulant both by controlling pR and by supplying phosphate. As such it is utilized by the yeast and should lead to no substantial increase in the phosphate content of bread. Further, being acidic in nature it acts as a raising agent in chemically leavened products

11. Lecithin. Lecithin, which can be added in powder form to flour, is an emulsifier. While having no oxidizing or reducing effect, it modifies the texture and mechanical handling properties of the dough. Maximum is 2,000 mg/kq.

TABLE 1. ADDITIVES IN WHEAT FLOUR

Additive	Maximum Level of Use	Maximum Level	JECFA Evaluation
Fungal amylase		GMP	
Proteolytic enzyme		GMP	
L-Ascorbic acid		300 mg/Kg	ADI 0-15 mg/kg BW
Azodicarbonamide	45 mg/Kg		treatment level 0-45mg/kg
Potassium bromate	50 mg/kg		treatment level 0-50 mg/kg
mono-Calcium phosphate		2500mg/Kg	ADI 0-70mg/Kg BW
Lecithin		2000 mg/Kg	ADI not specified

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Annex 2

TECHNOLOGICAL JUSTIFICATION FOR THE USE OF FOOD ADDITIVES IN WHEAT FLOUR

A. INTRODUCTION

1. At its Third Session, the Codex Committee on Cereals, Pulses and Legumes considered the use of food additives in wheat flour and agreed that the additives listed in Section 4of the Standard for Wheat Flour fulfilled various technological requirements. The Committee also prepared the following technological justification for the use of the additives for consideration by the Codex Committee on Food Additives.

B. BACKGROUND INFORMATION

2. The greater part of the bread, biscuits, etc. and much of the cakes consumed are produced commercially by machine. In this circumstance, it is very important that the flour should have consistently uniform and acceptable baking properties for economic and technical reasons. The additives cited in Section 4 of the Standard for Wheat Flour include those which help the industry to achieve this goal. In addition, by the use of certain of these additives, it is also possible to upgrade or improve the technical performance of certain types of flour which otherwise would have poor baking or machinability characteristics thus making this flour available as an acceptable ingredient. The use of certain additives may increase the consumer accepability of certain products, and, in some cases, may also lead to a longer shelf life thus reducing the potential losses.

3. Several factors need to be considered if flour of consistently uniform and of acceptable baking characteristics is to be produced. The choice of wheat varieties for the milling grist and the rate of extraction of flour from the grist depend on the end uses to which the flour may be put - predominantly bread, cakes and biscuits in many

countries. Even with an appropriate choice, differences in baking quality between different batches of flour are inevitable.

4. It has been known for very many years that these natural variations in the properties of wheat can be minimized and, even more importantly, that the inherent baking characteristics of the flour can be improved by the judicious use of certain flour treatment agents by the miller and baker. The selection of the treatment agents and the optimum level of use depends upon the factors mentioned above which include wheat variety, quality, extraction rate and, above all, the end use to which the flour may be put and the particular baking process employed. Many flours respond better to treatment agents used in combination, because the action of the additives is synergistic. This permits the use of a lower total level of additives than if only one additive was used. For example, ascorbic acid and potassium bromate exhibit this synergistic effect when added to flour for bread baking.

5. In breadmaking, the improving effect of treatment agents depends on complex reduction and oxidation interactions on the proteins within the dough structure. The Chorleywood Bread Process (see later), which uses treatment agents in combination, has enabled a higher proportion of homegrown wheat to be used in the production of flour for bread making in the United Kingdom at an estimated saving to the United Kingdom of about 45 millions in 1981. Generally there is a maximum level for the optimal improving effect of treatment agents and treatments at higher levels can be detrimental; thus treatment agents are generally self-limiting in use.

6. In the United Kingdom about 75% of the bread is made by the Chorleywood Bread Process and 10% by Activated Dough Development Process, both of which involve no fermentation of the dough in bulk; and the remainder is made by processes which require long fermentation of bulk dough. The no-bulk-fermentation processes, using combinations of improvers, enable bread to be made in a shorter time, require less factory space and, in the case of the Chorleywood Bread Process, enable utilization of more home grown wheat. The specific treatment agents required for these processes and for cake and biscuit production are discussed below in the sections dealing with the individual treatment agents.

C. CONSIDERATION OF SPECIFIC ADDITIVES

7. The flour treatment agents considered acceptable along with their respective maximum levels of use by the CCCPL are listed in Table I.

TABLE I - FLOUR TREATMENT AGENTS IN WHEAT FLOUR

	Maximum level of use	JECFA Evaluation
4.1 Bleaching Agents		(Ret No.CAC/FAL 5-1979)
4.1.1 Benzoyl peroxide	100mg/Kg	Useage level 0-40 mg/kg (cond. 40-75 mg/kg
4.1.2 Chloride dioxide	30mg/kg	Useage level 0-30 mg/kg (cond. 30-75 mg/kg)
4.1.3 Chlorine	2500mg/kg	No level set
4 .2 Enzymes		
4.2.1 Fungal amylase	GMP	
4.2.2 Suitable proteolytic enzymes	GMP	
4.3 Flour Improvers		
4.3.1 L-ascorbic acid	200mg/kg	Useage level 0-200 mg/kg
4.3.2 Azodicarbonamide	45mg/kg	Useage level 0-45 mg/kg
4.3.3 Potassium bromate	50mg/kg	Useage level 0-20 mg/kg (cond.20-75 mg/kg)
4.3.4 L-cysteine hydrochloride	2500mg/kg	Useage level not evaluated
4.3.5 Sulphur dioxide	200mg/kg	ADI: 0-0.7 mg/kg bw
4.3.6 Monocalcium phosphate	2500mg/kg	ADI: 0-70 mg/kg bw

Several additives have multiple effects and it must be recognized that the above classification only indicates the principle function of the additives under certain circumstances. Several of the additives listed in Section 4 (e.g. chlorine dioxide) can only be added during the milling process while others can be added at a later stage (e.g., prior to dough mixing). However, since the additives listed are normally added at the milling stage, it was considered necessary to include them in the standard for wheat flour.

(a) Bleaching Agents

8. Chlorine dioxide, benzoyl peroxide and chlorine are added to improve the colour of the flour to meet the consumer expectation and demand for white flour which is the major flour consumed in most countries. Chlorine dioxide is widely used in some countries (e.g. in the United Kingdom, 80% of all flour is treated by chlorine dioxide) both to improve the colour of the flour and to improve its baking characteristics. Chlorine also has a dual function of bleaching and modifying the flour properties so that the flour becomes particularly suitable for the production of high ratio (sugar/fat-to-flour) cakes.

(b) Enzymes

9. The actual alpha-amylase activity in flour varies considerably according to the harvesting conditions and origin of the wheat. In order to counteract this variability, flours for use in large bakeries are standardized to a constant enzyme activity by the addition of fungal amylases. The fungal amylases have less thermal stability than the naturally occurring amylases and are deactivated at an early stage of the baking process and therefore exhibit no enzyme activity in the final product.

10. The use of flours which naturally contain strong gluten to produce certain types of biscuits and other products can lead to unsatisfactory products. The addition of proteolytic enzyme can be used to weaken the gluten structure and thus overcome the problem.

(c) Flour Improvers

11. As stated earlier, the improving effects of the additives listed in this section depend on the occurrence of complex reduction and oxidation interactions within the protein structure of the dough. The improvers with the exception of sulphur dioxide are used primarily in flours for bread manufacture and can be used alone or in combination. As stated earlier, several improvers exhibit a synergistic effect when used together.L-ascorbic acid is widely used in some countries as the only permitted improver. Potassium bromate is used at levels typically around 25 mg/kg in combination with other improvers. Azodicarbonamide is a fast acting improver and is most widely used in combination with potassium bromate and/or ascorbic acid. L-cysteine, a naturally occurring amino acid, used in the form of L-cysteine hydrochloride, functions as a reducing agent and is almost always used in combination with potassium bromate and ascorbic acid. Monocalcium phosphate is used in combination with L-ascorbic acid.

12. Sulphur dioxide is used to modify the properties of flours used in production of biscuit and pastry. Its effect is to weaken the doughs (i.e., increase the extensibility)produced from the flour enabling the satisfactory production of biscuits and pastry in plant bakeries. This effect can be achieved at usage level of sulphur dioxide of less than 200 mg/kg.

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FLOUR TREATMENT AGENTS

Azodicarbonamide

- Allowed in USA up to 45 ppm.
- Typical use level: 4-8 ppm.
- Residue in flour - azodicarbonamide (equal to level of addition).
- Final residue in baked goods is biurea at ppm level based on flour equal to 1.016 *x* ppm azodicarbonamide added.
- Used only in bakers hard wheat flours for yeast raised products only.

Potassium Bromate

- Allowed in USA up to 50 ppm in flour.
- Typical treatment: 10 ppm (higher levels of 40-50 ppm commónly used for export flours to Central and South America where baking methods require higher levels.
- Residue in flour: potassium bromate at same level as addition.
- Usage at 5-7 ppm in some wheat flours for white pan bread, 15-20 ppm in hygluten flours for hearth and variety breads.

Chlorine

- Allowed in USA at quantity not more than sufficient for bleaching andartificial aging.
- Typical treatment Level: 500-1,000 ppm.
- Residue in flour: chloride ion equal approximately to chlorine treatment level.

- Usage of 2500 ppm only in Angel Cake flour for Consumer angel cake mix.
- Chlorine is not added to flours designed for bread production.

Chlorine Dioxide

- Not presently used in USA but allowed in a quantity not more than sufficient for bleaching and artificial aging effect.
- Typical treatment: 10-30 ppm. Maximum 30 ppm.
- Residue in flour: Chloride ion equal approximately to 52Z (in termsof ppm) of chlorine dioxide added.
- Chlorine dioxide is used extensively in the United Kingdom.

Benzoyl Peroxide

- Allowed in USA at quantity not more than sufficient for bleaching.
- Average use level: 40-45 ppm. Max. 100 ppm.
- Residue in flour: benzolc acid.
- Residue levels: 101 ppm benzoic acid for each 100 ppm benzoylperoxide added.
- Used for bleaching effect only in both bakers and consumer flours.

Mono-Calcium Phosphate

- Maximum 0.25% (2500 ppm) used in phosphated flours only in the Southeastern U.S. to produce buttermilk baking powder biscuits.

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APPENDIX X

REPORT OF THE AE-HOC WORKING GROUP ON THE REVIEW OF LABELLING PROVISIONS IN CODEX STANDARDS FOR CEREALS, PULSES AND LEGUMES

1. The 16th Session of the Commission has adopted the revised text of the General Standard for the Labelling of Prepackaged Foods and Guidelines on Labelling Provisions in Codex Standards and instructed Codex Committees to review and revise the labeling provisions, where necessary, to align them with the above two texts as contained in the Appendices IV and V to ALINORM 85/22A.

2. For this purpose the Committee established an Ad-Hoc Working Group consisting of members of the delegations of The Netherlands, Norway, Switzerland, United Kingdom, the United States and the Codex Secretariat. The WG was chaired by Mr. Charles Cooper of the United States.

3. The WG had before it ALINORM 85/29, Appendices II, III, IV, V, VI, ALINORM 85/22A,Appendices IV and V and CX/CPL 86/2-Add. 1. The WG considered the labelling provisions of the standards elaborated by the CC/CPL and compared them to the General Standard for Labelling of Prepackaged Foods.

4. The WG made the following general recommendations:

4.1 The revised preamble contained in the guidelines was applicable to all five standards reviewed as a consequential amendment to (a) the adoption of the General

Standard and (b) its inclusion in the draft standards under elaboration by the Committee. The provision reads as follows:

> "In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) [1/] the following specific provisions apply: "

4.2 The net contents provision in each standard should be amended by deleting reference to the avoirdupois system of measurement. With this amendment, the net contents provision in each standard conforms with the General Standard.

4.3 The WG agreed that the revised language for declaration of Name and Address in CX/CPL 86/2-Add. 1 was merely editorially different from the standard. However, the WG recommended that "of the manufacturer, packer, distributor, importer, exporter or vendor of the food" be deleted from the Name and Address section of each Codex Standard in CX/CPL 86/2-Add. 1, because it merely repeats language in the General Standard. The reference to Section 4.4 was sufficient.

4.4 Unless the commodity standard excluded food that had been irradiated, the standard should provide for labelling of the irradiated food. The WG noted that there could be objections to such labelling provisions on the grounds that they could be seen as promoting the irradiation of food. However, the WG concluded that having provisions for the labelling of irradiated foods acknowledges the possibility that they exist but does not constitute an endorsement. The WG recommends that the provisions in the standards for labelling of irradiated foods be discussed and submitted for comments.

4.5 The WG recommends that the Committee adopt in all five standards the language proposed in CX/CPL 86/2-Add. 1, non-retail containers section regarding lot identification.

4.6 The WG also recormmends that these revisions be included, where applicable, in the other standards developed by this Committee.

5. The WG recommends that the five standards be revised as follows:

1/ Thereafter referred to as "General Standard"

5.1 CODEX STANDARD FOR WHEAT FLOUR:

8. LABELLING

In addition to Sections 2,3,7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) [1/] the following specific provisions apply:

8.1 The Name of the Food

8.1.1 The name of the food to be declared on the label shall be "wheat flour" or"flour" as appropriate, in the country where the product is sold. [2/]

8.1.2 Unchanged8.1.3

Section 8.1.3 is an optional provision that should remain in the standard. It provides useful information for the consumer, but the information should not be mandatory because it is not essential for all types of flour packaging or for all consumer populations.

8.2 List of Ingredients

A complete list of ingredients shall be declared on the label in accordance with Section 4.2 of the General Standard except that in the case of added vitamins and added minerals, these shall be arranged as separate groups for vitamins and minerals respectively and, within these groups, the vitamins and minerals need not be listed in descending order of proportion.

The provision was edited to refer to 4.2 of the General Standard. The provision for declaration of vitamins and minerals should be retained because it provides information useful to the consumer and specific for this product.

8.3 Declaration of Nutritive Value - Unchanged

The question of whether the declaration of nutritive value should be coordinated with provision in the standard for addition of nutrients to the food was raised in the WG. However, the WG concluded that that question was outside its purview and perhaps should be considered by the Committee.

8.4 Net Contents

The net contents shall be declared by weight in metric ("Système International") units in accordance with Section 4.3 of the General, Standard.

8.5 Name and Address

The name and adress shall be declared in accordance with Section 4.4 of the General Standard.

8.6 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

8.7 Lot Identification

Unchanged (former Section 8.6).

1/ Thereafter called "General Standard".

2/ Footnote unchanged.

The WG discussed whether the phrasing of former Section 8.6 should be retained. The WG concluded that reference to other sections would not provide adequate labelling because identification of the producing mill would not be required. The Committee had decided that such information was essential for flour. The WG therefore recommends retaining the language of the provision on lot identification.

8.8 Date Marking and Storage Instructions

The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard.

The WG recommends the revised language in CX/CPL 86/2-Add. 1 as merely editorial changes.

8.9 Irradiated Foods

Where wheat flour has been prepared from raw material treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard.

The WG concluded that wheat flour that had been irradiated was not covered by the standard for wheat flour. It was based on the provision in 1.2, fifth indent. However, the standard did cover flour prepared from wheat that had been irradiated.

8.10 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to wheat flour in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th edition):

8.10.1 Information required in Sections 8.1 to 8.8 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents. *

8.10.2 Where wheat flour prepared from wheat that has been irradiated is in non-retail containers, it shall be so labelled in accordance with Sections 6.1 and6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).

This revision is consistent with the change in Section 8.9.

Sections 4.8, 5.1 and 6 of the General Standard were not included by the WG in the revised labelling provision because it considered that those sections did not apply to wheat flour.

5.2 CODEX STANDARD FOR MAIZE (CORN);

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) 1/, the following specific provisions apply:

* Note: The Committee should decide whether date marking and storage instructions should be declared on the label of the container.

1/ Thereafter called "General Standard".

7.1 The Name of the Food

7.1.1 The name of the food to be declared on the label shall be "maize" or "corn". 1/

7.1.2 - Unchanged. 2/

The WG recommends retaining the declarations in Section 7.1.2 as optional because the information is useful to many consumers but should not be required in all locations.

7.2 Net Contents

The net contents shall be declared by weight in metric ("Système International") units in accordance with Section 4.3 of the General Standard.

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification - Unchanged

The WG recommends that the language of Section 7.5 be retained unchanged because it is specific for this product. The WG recalled that the Committee had specifically wanted the packer to be identified.

[7.6 Irradiated Foods

Where prepackaged maize (corn) grain has been treated with ionizing radiation/energy it shall be labelled in accordance with Section 5.2 of the General Standard.]

The WG considered that the standard did not exclude irradiated maize and therefore Section 7.6 is appropriate. However, the WG recommended minor editing and putting the section in square brackets.

7.7 Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to maize (corn) grains in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

7.7.1 Information required in Sections 7.1 to 7.5 shall either be given on the container or in accompanying documents, except that, the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

1/ Footnote unchanged.

2/ The Committee may wish to consider whether this provision should be optional or mandatory in light of Section 4.1.2 of the General Standard which reads as follows:

> "There shall appear on the label either in conjunction with, or in close proximity to, the name of the food, such additional words or phrases as necessary to avoid misleading or confusing the consumer in regard to the true nature and physical condition of the food including but not limited to the type of packing medium, style, and the condition or type of treatment it has undergone; for example: dried, concentrated, reconstituted, smoked. "

[7.7.2 Where maize grains in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).]

The WG discussed whether irradiated maize would be covered by the standard. The standard does not apply to "processed maize". The Codex General Standard for Irradiated Foods applies to foods "processed by irradiation". The WG recommends that the Committee study this question. The WG recommends that the section be put in square brackets.

The WG did not recommend inclusion of other General Standard provisions, including date marking and storage instructions, instructions for use, quantitative labelling and exemptions because they do not apply to maize.

5.3 CODEX STANDARD FOR WHOLE MAIZE (CORN) MEAL:

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) [1/],the following specific provisions apply:

7.1 The Name of the Food

The name of the food to be declared on the label shall be "Whole Maize Meal" or "Whole Corn Meal".[2/]

7.2 Net Contents

The net contents shall be declared by weight in metric ("Système International") units in accordance with Section 4.3 of the General Standard.

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification

The lot identification shall be declared in accordance with Section 4.6 of the General Standard.

7.6 Date Marking and Storage Instructions

The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard.

7.7 Irradiated Foods

Where whole maize (corn) meal has been treated with ionizing radiation/energy or has been prepared from raw material treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard.

1/ Thereafter called "General Standard".

2/ Footnote unchanged.

7.8 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to whole maize (corn) meal in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

7.8.1 Information required in Sections 7.1 to 7.6 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

The WG recommends that the Committee decide whether date marking and storage instructions should be declared on the label of the container.

7.8.2 Where whole maize (corn) meal in non-retail containers has been irradiated, it shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).

5.4 CODEX STANDARD FOR DEGERMED MAIZE (CORN) MEAL AND MAIZE (CORN) GRITS:

7. LABELLING

To follow the pattern of the Codex Standard for Whole Maize (Corn) Meal above, except for Section 7.1 which should read as follows:

7.1 The Name of the Food

7.1.1 The name of the food to be declared on the label shall be "Degermed Maize Meal" or "Degermed Corn Meal" for products described in Section 2.1 and complying with Section 3.1 of the Standard. 1/

7.1.2 The name of the food to be declared on the label shall be "Degermed Maize Grits" or "Degermed Corn Grits" for products described in Section 2.2 and complying with Section 3.2 of the Standard. 2/

7.2 - 7.8: Following the pattern of the Codex Standard for Whole Maize (Corn)Meal in para. 5.3 above.

5.5 DRAFT CODEX STANDARD FOR CERTAIN PULSES:

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) 2/, the following specific provisions apply:

7.1 The Name of the Food

The name of the food to be declared on the label shall be the commercial type of pulse followed by the style.

7.2 Net Contents

The net contents shall be declared by weight in metric ("Systeme International") units in accordance with Section 4.3 of the General Standard.

1/ Footnote unchanged.

2/ Thereafter called "General Standard".

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard.

7.5 Lot Identification - Unchanged

7.6 Irradiated Foods

Where pulses in any presentation (style) covered by this standard have been treated with ionizing radiation/energy, they shall be labelled in accordance with Section 5.2 of the General Standard.

7.7 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to pulses covered by this standard in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

7.7.1 Information required in Sections 7.1 to 7.5 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.7.2 Where pulses covered by this standard in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).

ALINORM 87/29
APPENDIX XI

REVISED LABELLING PROVISIONS IN CODEX STANDARDS FOR CEREALS AND CEREAL PRODUCTS

The labelling provisions of the following Codex Standards have been revised, taking into account the Report of the Ad-Hoc Working Group on Labelling (See Appendix X) and the relevant paragraphs of the Report (see paras 39-61):

Wheat Flour (Appendix II to ALINORM 85/29)

Maize (Corn) (Appendix III to ALINORM 85/29)

Whole Maize (Com) Meal (Appendix IV to ALINORM 85/29)

Degermed Maize (Corn) Meal and Maize (Corn) Grits (Appendix V to ALINORM 85/29)

The Secretariat was requested to classify the amendments into editorial, consequential and substantive amendments. CC/CPL has advanced the Draft Standard for Certain Pulses (see Appendix II) to Step 8. Provisions of a general nature included in all standards elaborated by this Committee have been classified as "consequential" to their adoption by the Commission in connection with the Draft Standard for Certain Pulses. The amendments made to Codex Standards are sidelined:

I. CODEX STANDARD FDR WHEAT FLOUR

8. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) 1/ the following specific provisions apply: [Consequential amendment]

8.1 The Name of the Food

8.1.1 The name of the food to be declared on the label shall be "wheat flour" or "flour" as appropriate, in the country where the product is sold.2/

8.1.2 In addition thereto, there shall be added any qualifying term required by national legislation in the country where the product is sold (e.g., enriched).

8.1.3 The ash yield may be declared in close proximity thereto. This provision does not apply to flour to which has been added chalk (Calcium carbonate) or other constituents with a mineral content level different from that of flour.

(See Notes).

8.2 List of Ingredients

A complete list of ingredients shall be declared in accordance with Section 4.2 of the General Standard except that in the case of added vitamins and added minerals shall be arranged as separate groups for vitamins and minerals respectively and within these groups the vitamins and minerals need not be listed in descending order of proportion. (See Notes).

[Consequential amendment]

8.3 Declaration of Nutritive Value

If vitamins and/or minerals are added to the product the following information shall be given:

> "The total quantity in the final product of each vitamin and/or mineral added in accordance with Section 3.4.2 for 100 grammes of the food as sold for consumption."

8.4 Net Contents

The net contents shall be declared by weight in metric ("Système International") units in accordance with Section 4.3 of the General Standard. [Consequential amendment]

8.5 Name and Address

The name and adress shall be declared in accordance with Section 4.4 of the General Standard. [Editorial amendment]

8.6 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard. [Editorial amendment]

8.7 Lot Identification

Each bulk consignment and each individual container of a packaged consignment shall be permanently marked in code or in clear to identify the producing mill and the lot. (See Notes).

1 Thereafter called "General Standard".

2/ In accepting this standard governments are requested to indicate the requirement in force in their country.

8.8 Date Marking and Storage Instructions

The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard.

8.9 Irradiated Foods

Where wheat flour has been prepared from raw material treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard. (See para. 53 of the Report).

8.10 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to wheat flour in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th edition):

8.10.1 Information required in Sections 8.1 to 8.8 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8.10.2 Where wheat flour prepared from wheat that has been irradiated is in non-retail containers, it shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983). [Consequential amendment]

NOTES:

8.1.3: Section 8.1.3 is an optional provision that should remain in the standard. It provides useful information for the consumer, but the information should not be mandatory because it is not essential for all types of flour packaging or for all consumer populations.

8.2: The provision for declaration of vitamins and minerals should be retained because it provides information useful to the consumer and specific for this product.

8.7: Reference to Section 4.6 of the General Standard would not provide adequate labelling because identification of the producing mill would not be required. The Committee affirmed its decision that such information was essential for flours.

8.9 and 8.10.2: After an extensive discussion, the Committee decided that the question of including provisions for irradiated products or products made from irradiated raw materials be discussed at a future meeting. (See paras 53 and 55).

8.10: The Committee decided that Section 8.10.1 as presently drafted was appropriate for this standard.

Sections 4.8, 5.1 and 6 of the General Standard: The Committee decided that the above sections were not applicable to this standard.

II. CODEX STANDARD FOR MAIZE (CORN)

7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) 1/, the following specific provisions apply: [Consequential amendment]

1 Thereafter called "General Standard".

7.1 The Name of the Food

7.1.1 The name of the food to be declared on the label shall be "maize" or "corn".[1] [Editorial amendment]

7.1.2 In addition, the food may be designated with the appropriate terms indicated in Sections 2.2.1 and 2.2.2 provided the food complies with the requirements defined in Sections 2.2.1.1 to 2.2.1.4 and 2.2.2.1 to 2.2.2.3 respectively.

(See Notes)•

7.2 Net Contents

The net contents shall be declared by weight in metric ("Systeme International") units in accordance with Section 4.3 of the General Standard. [Consequential amendment]

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard. [Editorial amendment]

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard. [Editorial amendment]

7.5 Lot Identification

Each container (bag) shall be permanently marked in code or in clear to identify the packer and the lot. (See Notes).

[7.6 Irradiated Foods

Where prepackaged maize (corn) grain has been treated with ionizing radiation/energy it shall be labelled in accordance with Section 5.2 of the General Standard.] (See Notes)

7.7 Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to maize (corn) grains in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

7.7.1 Information required in Sections 7.1 to 7.5 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

[7.7.2 Where maize grains in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).] (See Notes).

NOTES;

7.1.2: The Committee retained the declarations in Section 7.1.2 as optional because even if it is useful to many consumers, it should not be required in all locations.

1 In accepting the standard, Governments are requested to indicate which term is required in their country.

7.5; The Committee retained the language unchanged because it is specific for the product covered by the standard and confirmed that specifically the packer should be identified.

7.6 and 7.7.2: See para. 59 of the Report.

III. CODEX STANDARD FOR WHOLE MAIZE (CORN) MEAL 7. LABELLING

In addition to Sections 2, 3, 7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) 1/, the following specific provisions apply: [Consequential amendment]

7.1 The Name of the Food

The name of the food to be declared on the label shall be "Whole Maize Meal" or "Whole Corn Meal". 2/

7.2 Net Contents

The net contents shall be declared by weight in metric ("Systeme International") units in accordance with Section 4.3 of the General Standard. [Consequential amendment]

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard. [Editorial amendment].

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard. [Editorial amendment].

7.5 Lot Identification

The lot identification shall be declared in accordance with Section 4.6 of the General Standard. [Editorial amendment].

7.6 Date Marking and Storage Instructions

The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard. [Editorial amendment]

7.7 Irradiated Foods

Where whole maize (corn) meal has been treated with ionizing radiation/energy or has been prepared from raw material treated with ionizing radiation/energy, it shall be labelled in accordance with Section 5.2 of the General Standard. (See Notes).

7.8 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to whole maize (corn) meal in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

1 Thereafter called "General Standard".

2 In accepting the standard, Governments are requested to indicate the term which is required in their country.

7.8.1 Information required in Sections 7.1 to 7.6 shall either be given on the container or in accompanying documents, except that the name of the product, lot

identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.8.2 Where whole maize (corn) meal in non-retail containers has been irradiated, it shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983). (See Notes). [Consequential amendment].

NOTES;

7.7 and 7.8.2; See paras 53 and 55 of the Report.

IV. CODEX STANDARD FOR DEGERMED MAIZE (CORN) MEAL AND MAIZE (CORN) GRITS 7. LABELLING

In addition to Sections 2,3,7 and 8 of the Codex General Standard for the Labelling of Prepackaged Foods (Ref. No. CODEX STAN 1-1985) 1/, the following specific provisions apply: [Consequential amendment]

7.1 The Name of the Food

7.1.1 The name of the food to be declared on the label shall be "Degermed Maize Meal" or "Degermed Corn Meal" for products described in Section 2.1 and complying with Section 3.1 of the Standard. 2/

7.1.2 The name of the food to be declared on the label shall be "Degermed Maize Grits" or "Degermed Corn Grits" for products described in Section 2.2 and complying with Section 3.2 of the Standard. *2/*

7.2 Net Contents

The net contents shall be declared by weight in metric ("Systeme International") units in accordance with Section 4.3 of the General Standard. [Consequential amendment]

7.3 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard. [Editorial amendment].

7.4 Country of Origin

The country of origin shall be declared in accordance with Section 4.5 of the General Standard. [Editorial amendment].

7.5 Lot Identification

The lot identification shall be declared in accordance with Section 4.6 of the General Standard. [Editorial amendment].

1 Thereafter called "General Standard".

2/ In accepting the standard, Governments are requested to indicate the term which is required in their country.

7.6 Date Marking and Storage Instructions

The date of minimum durability shall be declared in accordance with Sections 4.7.1 and 4.7.2 of the General Standard. [Editorial amendment]

7.7 Irradiated Foods

Where degermed maize (corn) meal and maize (corn) grits have been treated with ionizing radiation/energy or have been prepared from raw material treated with ionizing radiation/energy, they shall be labelled in accordance with Section 5.2 of the General Standard. (See Notes).

7.8 Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the General Standard the following specific provisions apply to degermed maize (corn) meal and maize (corn) grits in non-retail containers as defined by the Codex Alimentarius Commission (see page ... of the Procedural Manual, 6th Edition):

7.8.1 Information required in Sections 7.1 to 7.6 shall either be given on the container or in accompanying documents, except that the name of the product, lot identification, and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

7.8.2 Where degermed maize (corn) meal and maize (corn) grits in non-retail containers have been irradiated, they shall be so labelled in accordance with Sections 6.1 and 6.3 of the Codex General Standard for Irradiated Foods (CODEX STAN 106-1983).
(See Notes).

[Consequential amendment].

NOTES:

7.7 and 7.8.2: See paras 53 and 55 of the Report.