JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

Thirty fifth Session
Rome, Italy, 2-7 July 2012

REPORT OF THE THIRTY THIRD SESSION OF THE CODEX COMMITTEE
ON NUTRITION AND FOODS FOR SPECIAL DIETARY USES

Bad Soden am Taunus, Germany
14 - 18 November 2011

NOTE: This report contains Codex Circular Letter CL 2011/24-NFSDU.
TO: Codex Contact Points
   Interested International Organizations

FROM: Secretariat, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme

SUBJECT: Distribution of the Report of the 33rd Session of the Codex Committee on Nutrition and
          Foods for Special Dietary Uses (REP12/NFSDU)

A. MATTERS FOR ADOPTION BY THE 35th SESSION OF THE COMMISSION:

Draft Guidelines Step 5/8 of the Procedure


Governments and interested international organizations wishing to comments on the above document, should
   do so in writing, in conformity with the Procedure for the Elaboration of Codex Standards and Related Texts
   (Procedural Manual of the Codex Alimentarius Commission), to the above address, before 15 March 2012.

Draft Guidelines Step 5 of the Procedure

2. Proposed Draft Revision of the Guidelines on Formulated Supplementary Foods for Older Infants
   and Young Children (CAC/GL 8-1991) (para. 126, Appendix IV).

Governments and interested international organizations wishing to comments on the above document, should
   do so in writing, in conformity with the Procedure for the Elaboration of Codex Standards and Related Texts
   (Procedural Manual of the Codex Alimentarius Commission), to the above address, before 15 March 2012.

B. REQUEST FOR COMMENTS AND INFORMATION

Proposed Draft Guidelines at Step 3 of the Procedure

3. General Principles for Establishing Nutrient Reference Values for Nutrients Associated with Risk of
   Diet-Related Non-communicable Diseases for General Population (NRVs-NCD) (para. 66, Appendix V).

Governments and interested international organizations wishing to submit comments on the above document,
   should do so by writing preferably by email to Dr Barbara O. Schneeman, Director, Office of Nutrition
   Labeling and Dietary Supplements, Center for Food Safety & Applied Nutrition, U.S. Food and Drug
   Administration (HFS-800), 5100 Paint Branch Parkway, College Park, MD 20740, United States of America,
   E-Mail: barbara.schneeman@fda.hhs.gov, with a copy to the Secretariat at the address above before 1 February 2012.
TABLE OF CONTENTS

Summary and Conclusions ..................................................................................................................... page iv
List of Abbreviations................................................................................................................................. page v
Report of the Thirty-second Session of the Codex Committee on Nutrition and Foods for Special Dietary Uses........................................................................................................................... page 1
Summary Status of Work ....................................................................................................................... page 16

Paragraphs

Introduction ...................................................................................................................................................... 1
Opening of the Session ...................................................................................................................................... 2
Adoption of the Agenda (Agenda Item 1) ......................................................................................................... 4
Matters Referred to the Committee by the Codex Alimentarius Commission and/or Other Codex Committees (Agenda Item 2a) .......................................................................................................................... 5
Matters of Interest Arising from FAO and WHO (Agenda Item 2b) .............................................................. 18
Proposed Draft Additional or Revised Nutrient Reference Values for Labelling Purposes in the Codex Guidelines on Nutrition Labelling at Step 4 (Agenda Item 3) .................................................... 26
Principles for the Development and Review of NRVs for Labelling Purposes for Nutrients Associated with Risk of Diet-Related Noncommunicable Diseases (Agenda Item 4) .......................... 39
Proposed Draft Nutrient Values (NRVs) (Agenda Item 4b) ........................................................................... 67
Proposed Draft Revision of the Codex General Principles for the Addition of Essential Nutrients to Foods (CAC/GL 9-1987) at Step 4 (Agenda Item 5) ............................................................................. 77
Proposed Draft Revision of the Guidelines on Formulated Supplementary Foods for Older Infants and Young Children (CAC/GL 8-1991) at Step 4 (Agenda Item 6) ............................................................. 81
Proposed Draft Amendment of the Standard for Processed Cereal-Based Foods for Infants and young Children (CODEX STAN 74-1981) to Include a New Part B for Underweight Children at step 4 (Agenda Item 7) ................................................................................................. 127
Proposal to Review the Codex Standard for Follow-up Formula (CODEX STAN 156-1987) (Agenda Item 8) .......................................................................................................................... 130
Other Business and Future Work (Agenda Item 9) ....................................................................................... 135
Date and Place of Next Session of the Committee (Agenda Item 10) ........................................................... 136

Appendices

Appendix I List of Participants ................................................................................................................................ page 17
Appendix II Additives Provisions for Infant Formulae and Formulae for Special Medical Purposes ........................................................................................................................................... page 43
Appendix IV Guidelines on Formulated Complementary Foods for Older Infants and Young Children (Step 5) ................................................................................................................................... page 45
SUMMARY AND CONCLUSIONS

The Thirty-third Session of the Codex Committee on Nutrition and Foods for Special Dietary Uses reached the following conclusions:

---

**Matters for consideration by the 35th Session of the Codex Alimentarius Commission**

**Draft Standards and Related Texts for adoption**

The Committee:

- Advanced to Step 5 the Draft *Guidelines on Formulated Complementary Foods for Older Infants and Young Children* (para. 126 and Appendix IV).
- Forwarded the editorial amendment of the references in food hygiene provisions in the *Standard for Canned Baby Foods* (CODEX STAN 73-1981) and the *Standard for Cereal-Based Foods for Infants and Young Children* (CODEX STAN 74-1981) for adoption (para. 15).

**Other matters for information**

The Committee agreed:

- To return to Step 3 the Proposed Draft *General Principles for Establishing Nutrient Reference Values for Nutrients Associated with Risk of Diet-Related Non-communicable Diseases for General Population (NRVs-NCD)* for comment, redrafting and consideration at the next session (para. 66 and Appendix V).
- To return to Step 3 the Proposed Draft *Additional or Revised Nutrient Reference Values for Labelling Purposes in the Codex Guidelines on Nutrition Labelling* (para. 38), Proposed Draft Revision of the *Codex General Principles for the Addition of Essential Nutrients to Foods* (CAC/GL 9-1987) (para. 79) and Proposed Draft *Amendment of the Standard for Processed Cereal-Based Foods for Infants and Young Children* (CODEX STAN 74-1981) to Include a New Part B for Underweight Children (para. 129) for redrafting, comments at Step 3 and consideration at the next session.
- To consider the revision of the *Standard for Follow-up Formula* (CODEX STAN 156-1987) (para. 134) and the redrafted list of food additives (para. 8) at its next session.

**Matters referred to other Codex Committees**

The Committee agreed:

- To forward to the Committee on Food Additives two food additives for endorsement (para. 6, Appendix II).
- To forward to the Committee on Food Labelling the comments on the draft definition of NRV (para. 12) and to agree that there was no need to revise the definition of trans-fatty acid (para. 13).
- To ask the Committee on Food Labelling to consider the question of whether to revise section 3.4.4 of the *Guidelines on Nutrition Labelling* (CAC/GL 2-1985) to insert a reference energy value in nutrition labelling (para. 58).
LIST OF ABBREVIATIONS
(Used in this Report)

AMDR  Acceptable Macronutrient Distribution Range
CCFA  Codex Committee on Food Additives
CCFL  Codex Committee on Food Labelling
CCMAS Codex Committee on Methods of Analysis and Sampling
CCNFSDU Codex Committee on Nutrition and Foods for Special Dietary Uses
CVD   Cardiovascular Disease
eLENA electronic Library of Evidence for Nutrition Action
EU    European Union
eWG   electronic Working Group
FAO   Food and Agricultural Organization of the United Nations
IMAPP Intake Monitoring Assessment Planning Programme
JEMNU Joint FAO/WHO Expert Meetings on Nutrition
MAM   Moderate Acute Malnutrition
NCD   Noncommunicable Disease
NRV   Nutrition Reference Value
NUGAG WHO Nutrition Guidance Expert Advisory Group
PUFA  Polyunsaturated Fatty Acid
pWG   physical Working Group
SAM   Severe Acute Malnutrition
SFA   Saturated Fatty Acid
UL    Upper Level of intake
UN    United Nations
WHA   World Health Assembly
WHO   World Health Organization
INTRODUCTION

1. The thirty-third Session of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) was held in Bad Soden am Taunus, Germany from 14 to 18 November 2011 at the kind invitation of the Government of Germany. The Session was chaired by Dr Pia Noble, Head of Division of Specific Foods, Food Supplements and Food Additives, Federal Ministry of Food, Agriculture and Consumer Protection. The Committee was attended by 269 delegates representing 68 Member Countries, one Member Organization and 33 International Organizations.

OPENING OF THE SESSION

2. Mr Peter Bleser, Parliamentary State Secretary to the Federal Minister of Food, Agriculture and Consumer Protection opened the Session and welcomed participants. He emphasized the importance of Codex work for improving food safety and protection of consumers’ health as well as for fair practice in international trade of foods. He highlighted food security problems and stressed the need to support mothers and children to improve nutrition status. He also mentioned that international standards would contribute to solve problems such as malnutrition and obesity, which would affect not only personal quality of life but also increase of the cost of the national health system, and recalled the importance of nutrition labelling to allow consumers to make an informed choice.

Division of competence

3. Following Rule II.5 of the Rules of Procedure of the Codex Alimentarius Commission the Committee was informed about CRD 3 on the division of competence between the European Union (EU) and its Member States.

ADOPTION OF THE AGENDA (Agenda Item 1)\(^1\)

4. The Committee agreed to discuss Agenda Item 5 after Agenda item 6 and adopted the Provisional Agenda with the amendment as its Agenda for the Session.

MATTERS REFERRED TO THE COMMITTEE BY THE CODEX ALIMENTARIUS COMMISSION AND/OR OTHER CODEX COMMITTEES (Agenda Item 2a)\(^2\)

Committee on Food Additives

Food additives provisions in the Standard for Infant Formulas and Formula for Special Medical Purposes

5. The Committee noted the conclusions of the Committee on Food Additives in reply to its requests for clarification on the additives which had been considered for inclusion in the Standard for Infant Formulas and Formula for Special Medical Purposes. The CCFA had encouraged the CCNFSDU to give consideration to the grouping of substances proposed in paras 14-18 of CX/FA 11/43/15, where the requested additives had been grouped in accordance with their needs for different levels of assessment in the following categories: physiological body constituents, physiological metabolites and xenobiotics.

6. Taking into account the comments of the CCFA, the Committee agreed that the salts of citric and phosphoric acid, which may be considered as physiological body constituents, should be included in the list of additives. As Sodium citrates (331i and 331iii) and Potassium citrates (332i and 332ii) were already included in the additives section of the standard, the Committee agreed to forward for endorsement the levels for the acidity regulators Sodium phosphates (339i, ii and iii) and Potassium phosphates (340i, ii and iii) (see Appendix II).

---

\(^1\) CX/NFSDU 11/33/1

\(^2\) CX/NFSDU 11/33/2, CX/NFSDU 11/33/2-Add.1
7. The Delegation of Switzerland proposed to revise the list of substances initially proposed by the CCNFSDU, taking into account the comments made by the CCFA on the need for grouping the additives and the possible need for specific assessment and deleting as required the additives which may not be technologically justified. The Committee noted a comment on the need for clarification of the term “xenobiotics” which was not usually applied to additives and which could be better described as “other compounds”.

8. After some discussion, the Committee agreed that Switzerland would redraft the list of additives for circulation through a circular letter, and revise it in the light of the comments for consideration by the next session.

Carry-over of food additives into foods

9. In reply to the question of the Committee on Food Additives concerning the application of the carry-over of food additives in the foods included in food categories 13.1 and 13.2 of the General Standard for Food Additives (GSFA), the Committee confirmed that the carry-over was applied consistently with the Preamble of the GSFA, Section 4.3: “Carry-over of a food additive from a raw material or ingredient is unacceptable for foods belonging to the following food categories, unless a food additive provision in the specified category is listed in Tables 1 and 2 of this standard: a) 13.1 - Infant formulae, follow-up formulae, and formulae for special medical purposes for infants; b) 13.2 - Complementary foods for infants and young children.”

10. Some delegations pointed out that several additives which were included in the Standard for Infant Formulas and Formula for Special Medical Purposes and the Standard for Cereal-Based Foods for Infants and Young Children, and had been endorsed by the CCFA, were not included in Tables 1 and 2 of the GSFA and therefore asked the CCFA to consider their inclusion in the GSFA in order to ensure consistency between the additive provisions in specific standards and in the GSFA and in the application of the carry-over principle.

11. In order to ensure consistency in the additive provisions in the standards for foods for infants and young children, the Committee agreed to replace the current section on the carry-over principle in the Standard for Follow-up Formula and in the Standard for Canned Baby Foods by the following text at the beginning of the section on food additives:

Only the food additives listed in this section may be present in the foods covered by this Standard, as a result of carry-over from a raw material or other ingredient (including food additive) used to produce the food, subject to the following conditions:

a) The amount of the food additive in the raw materials or other ingredients (including food additives) does not exceed the maximum level specified; and

b) The food into which the food additive is carried over does not contain the food additive in greater quantity than would be introduced by the use of the raw material or ingredients under good manufacturing practice, consistent with the provisions on carry-over in the Preamble of the General Standard for Food Additives (CAC/STAN 192-1995).

Committee on Food Labelling

Definition of Nutrient Reference Values

12. The Committee noted that the draft definition (adopted at Step 5 by the Commission) had been referred to the CCNFSDU for comments. It was proposed to reconsider the definition after finalization of the principles for NRVs-NCDs which were under development and the possible need to include a reference to the General Principles but the Committee did not propose specific amendments at this stage.

Proposal for new work on the definition of trans-fatty acids

13. The Committee recalled that the Committee on Food Labelling, following the request of the delegation of Malaysia and further discussion, had invited the CCNFSDU to provide advice on the revision of the definition of trans-fatty acids. The Delegation of Malaysia informed the Committee that they wished to withdraw the request for the revision of the definition as the present definition was adequate. Other delegations expressed the view that there was not enough new scientific information to justify a revision of the definition. The Committee therefore agreed that there was no need to revise the definition at this stage.
14. The Delegation of Australia proposed that the definition of trans fatty acids should be reviewed to reconsider the exemption of conjugated fatty acids in view of new studies on the health effects of conjugated fatty acids. The Committee noted that this was a new issue and invited Australia to prepare a proposal for consideration of new work at the next session.

**Food Hygiene Provisions**

15. The Committee recalled that in the Standard for Infant Formula and Formulas for Special Medical Purposes Intended for Infants and the Standard for Follow-up Formula (CODEX STAN 156-1987), reference was made to the Code of Hygienic Practice for Powdered Formulae for Infants and Young Children (CAC/RCP 66-2008), which superseded the Code of Hygienic Practice for Foods for Infants and Children (CAC/RCP 21-1979) and considered how to update the reference to the superseded code in other texts. The Committee agreed to proceed as follows:

- **Standard for Cereal-Based Foods for Infants and Young Children (CODEX STAN 74-1981):** delete the reference to CAC/RCP 21-1979 and refer to the General Principles of Food Hygiene, which adequately cover the products concerned.


- **Guidelines for Formulated Supplementary Foods for Older Infants and Young Children (CAC/GL 8-1991):** revise the hygiene section while revising the Guidelines (see Agenda Item 6).

16. The Committee agreed to forward these amendments to the Commission for adoption as editorial and consequential amendments.

**Committee on Methods of Analysis and Sampling**

**Endorsement of Methods of Analysis Provisions in Codex Standards**

17. One delegation requested information on the work of the CCMAS on dietary fibre. It was noted that the CCNFSDU would be informed when the work on the selection of methods for dietary fibre was completed.

**MATTERS OF INTEREST ARISING FROM FAO AND WHO (Agenda Item 2b)**

18. The Representative of FAO informed the committee about several current FAO activities such as a meeting on nutrition information, education and communication for 19 Latin American and Caribbean countries, to be held in El Salvador in December 2011 and an international conference on diet and activity assessment methods, to be held in Rome in May 2012. FAO is publishing a West African food composition table, a protein quality expert report, a book on milk and dairy products. With funds from the German Ministry of Food, Agriculture and Consumer Protection, FAO is developing a professional training programme for nutrition and communication. A new strategy for all nutrition work in FAO is being developed and should be finalized in 2012.

19. In reply to a question, the Representative indicated that updated data from countries on food composition could be provided to INFOODS or through FAO regional offices.

20. The Representative of WHO highlighted some of the activities which may be of relevance to the work of the Committee. WHO is currently developing a road map to implement the Political Declaration adopted at the High-level meeting of the UN General Assembly on the Prevention and Control of Non-communicable Diseases held in New York in September 2011 and its Action Plan. WHO is also developing a comprehensive implementation plan on maternal, infant and young child nutrition as requested by the World Health Assembly in May 2010. During 2011, five regional consultations on Scaling-up Nutrition were held to obtain inputs from Member States and other stakeholders for formulating a comprehensive implementation plan. A draft implementation plan will be reviewed at the Executive Board meeting in January 2012.

---

3 CX/NFSU 11/33/3
21. WHO continues to work on implementing population salt reduction strategies, which include the development of monitoring and evaluation framework at the global level as well as various regional initiatives and intervention programmes. The Representative of WHO informed the committee of the launching of the WHO electronic Library of Evidence for Nutrition Action (eLENA) in August 2011, which provides a wide range of resources as detailed in the working document.

22. The Representative of WHO updated the Committee on the ongoing work of the WHO Nutrition Guidance Expert Advisory Group (NUGAG). The NUGAG Subgroup on Micronutrients finalized the guidelines on vitamin A supplementation for different population groups as well as the guidelines on the use of multiple micronutrient powders for home fortification of foods, iron supplementation, the safety of iron interventions for children and pregnant women living in areas of high malaria transmission, vitamin D and calcium supplementation. The Subgroup on Micronutrients is now reviewing various fortification guidelines. The NUGAG Subgroup on Diet and Health is planning to finalize the review of the scientific evidence and updating recommendations related to total fat, sugars, sodium and potassium at its next meeting in November 2011. In 2012 - 2013, this Subgroup is planning to review and update the recommendations on fats and fatty acids. The scope for the work will be finalized by NUGAG. The NUGAG subgroup on Diet and Health is developing guidance on severe acute malnutrition (SAM) and moderate acute malnutrition (MAM).

23. The Representative of WHO updated the Committee on the progress of the work on nutrient profiling, especially the field-testing of the guiding principles in several countries and, in reply to a question, indicated that stakeholders consultations had been held through the peer-reviewed process.

24. Some delegations pointed out that the work of WHO on marketing of foods to children, WHA resolutions and other WHO guidance on foods for infants and children were relevant to the work of the Committee and should be taken into account in Codex standards.

25. In reply to a question on the feasibility of joint FAO/WHO advice on nutrition, the Representative of WHO indicated that in view of the guideline review process in WHO, it was no longer possible to convene ad hoc expert consultations, and as regards the establishment of a joint FAO/WHO committee (JEMNU), consultations were ongoing with FAO.

PROPOSED DRAFT ADDITIONAL OR REVISED NUTRIENT REFERENCE VALUES FOR LABELLING PURPOSES IN THE CODEX GUIDELINES ON NUTRITION LABELLING (Agenda Item 3)

26. The Committee recalled that its last session had retained the Proposed Draft NRVs at Step 4 and had requested FAO and WHO to review the existing daily vitamin and mineral intake reference values for 28 vitamins and minerals, as well as information describing the basis for those values. In addition, the organizations were asked to give an estimate of the extent of the change in the scientific evidence base since 1998, the last time FAO/WHO held an expert meeting on vitamins and minerals.

27. The representatives of WHO/FAO presented the report on the Review of Existing Daily Vitamin and Mineral Intake Reference Values and indicated that FAO and WHO collaborated in collecting information for the review. Several methods were used to gather the information requested by the Committee. Data was retrieved from available databases, published documents, followed by examination of the original references for these values. National authorities were contacted through the WHO/FAO Regional and Country Offices, and a call for data was issued through the Codex Secretariat. They also completed a literature search of PubMed database for each nutrient to indicate the change in scientific literature since 1998.

28. Data were obtained from primary sources in developed and developing countries, countries with various national income levels, and from regions around the globe. Complexities identified in working in this area were lack of common terminology among the various countries; different terms are used for the same concept and the same term is used for different concepts depending on the country or organization. Additionally, detailed information was often difficult to acquire and more than 50% of countries for which data was compiled were from one region.

---

4 CX/NFSDU 11/33/4, CX/NFSDU 11/33/4-Add.1, CRD 4 (comments of Mali), CRD 10 (comments of Indonesia)
29. Data were obtained for 55 countries. The Representative of FAO reported that nearly all countries had values for a wide range of nutrients while fewer countries had values for other nutrients. To estimate the amount of scientific research about each nutrient during the past years, a literature search was conducted. There was a very wide range in the amount of scientific publications, with nearly 60,000 papers for calcium and less than 300 papers for pantothenate.

30. Examples of the graphs and tables were presented in the report for the nutrients calcium and biotin in order to reflect the structure of the report. The complete set of data for each country and nutrient was compiled in the spreadsheet that is available on the Codex ftp server (ftp://ftp.fao.org/codex/Meetings/CCNFSDU/ccnfsdu33/NRVreport.xls).

31. The Representative of WHO also presented an update on the progress towards the completion of the request made to WHO to consider the establishment of daily potassium intake values for the general population. The Committee was informed that a new WHO recommendation on potassium developed by the NUGAG group would be available in 2012.

32. Some delegations indicated that they had some corrections to make to the data presented in the report and it was agreed that information concerning necessary corrections of the WHO/FAO report to be submitted to NPUinfo@who.int by 30th November 2011.

33. The Committee expressed its thanks to FAO and WHO for this comprehensive report and considered how to proceed further, as it was recalled that the report had been requested to facilitate further consideration of NRVs for inclusion in the Guidelines on Nutrition Labelling.

34. The Committee discussed the need to prioritise the consideration of a limited number of NRVs according to their importance for labelling purposes, as some delegations questioned the feasibility of reviewing all NRVs for consideration at the next session, and also whether sodium and potassium should be excluded.

35. The Delegation of Australia proposed to convene an electronic working group to review all proposed draft NRVs included in Appendix IV of the report of the 31st Session ALINORM 10/33/26.

36. The Committee agreed to return the Proposed Draft NRVs for redrafting by the above-mentioned working group, circulation for comments at Step 3 and consideration at the next session.
PRINCIPLES FOR THE DEVELOPMENT AND REVIEW OF NRVS FOR LABELLING PURPOSES FOR NUTRIENTS ASSOCIATED WITH RISK OF DIET-RELATED NONCOMMUNICABLE DISEASES (Agenda Item 4)

General Principles for Establishing Nutrient Reference Values for Nutrients Associated with Risk of Diet-Related Noncommunicable Diseases for General Population (NRVs-NCD) (Agenda Item 4a)

39. The Committee recalled that its last session had agreed to return the document to Step 3 and that it had established an eWG chaired by the United States of America and co-chaired by Chile and Thailand to prepare a revised document for its next session.

40. The Delegation of the United Kingdom informed the Committee that its comments in CX/NFSDU 11/33/6-Add.2 were not intended for consideration at the Committee and therefore the Committee noted that the comments were withdrawn.

41. The delegation of the United States of America, as the chair of the eWG, introduced the document CX/NFSDU 11/33/6 and informed that the eWG had considered all main aspects that had not been considered at the last session of CCNFSDU. The eWG also identified additional issues to be considered at the Committee including the potential for more than one NRV, NRV for protein, consolidation of annexes on NRV-NCD and vitamin and mineral NRV principles and presentation of information on NRVs in the Guidelines on Nutrition Labelling.

42. The Committee expressed its thanks to the United States of America, Chile and Thailand and to the working group for this comprehensive work and agreed to consider the revised document section by section in the following order: section 1, section 3, section 2 and additional issues. Besides editorial amendments, the Committee agreed with the following changes.

1. Preamble

43. In the third sentence, the Committee agreed to start with “governments are encouraged” for consistency with the Annex on vitamin and mineral NRV principles and to insert “diet-related” before “noncommunicable diseases” for consistency in the document.

44. The Committee noted that these principles would apply not only to the establishment of Nutrient Reference Values in national level, but also to the establishment of Codex Nutrient Reference Values for labelling purposes, as stated in the preamble.

3.1 Criteria for selection of nutrients

45. Regarding the first bullet point, some delegations supported to retain “probable” because “probable” scientific evidence, which is weaker than “convincing” evidence, was still strong according to the current definition in this document, more evidence should be used for establishing Codex NRVs, more NRVs would be established with “probable” evidence, and it would be the only way for developing countries to refer to the Codex NRVs.

46. Other delegations did not support the use of “probable” evidence to establish NRVs because Codex texts should be consistent with the provisions for the scientific substantiation of health claims, the definition of “probable” in this document would be applicable only to cancer, not to other non-communicable diseases, and had not been used in any FAO/WHO report. The establishment of NRVs was not overly restricted without using “probable” evidence, as several NRVs could be considered on the basis of convincing evidence.

47. The Representative of WHO indicated that new terms would replace the use of probable and convincing scientific evidence and the inclusion of "probable" scientific evidence was in line with the actual use of the term in the older report which was consistent with the definition being considered by the Committee and that the sentence included in the footnote may take care of concerns of health claims.

---

5 REP 11/NFSDU Appendix IV, CL 2010/53-NFSDU, CX/NFSDU 11/33/5 (Comments in reply to CL 2010/53-NFSDU of Argentina, Australia, Costa Rica, European Union, Malaysia, Mexico and United States of America), CX/NFSDU 11/33/6 (Report of electronic working group), CX/NFSDU 11/33/6-Add.1 (Comments of Brazil, Chile, China, Colombia, Egypt, Japan, Malaysia, Norway, Philippines, Thailand, United States of America, Uruguay, ICBA, IDF and NHF), CX/NFSDU 11/33/6-Add.2 (Comments of Canada, European Union, Mexico and Nicaragua), CRD 4 (Comments of Mali), CRD 6 (Comments of Australia, Nicaragua, Turkey and FoodDrinkEurope), CRD 10 (Comments of Indonesia), CRD 14 (Comments of Jamaica), CRD 17 (Comments of Malaysia)
48. After extensive discussion, the Committee agreed to delete “probable” from the first sentence and to consider text on the suitability of probable evidence.

49. Some delegations supported to include the text in square brackets “in addition, governments may consider the suitability of probable evidence...”; other delegations proposed to include the simplified text “the suitability of probable evidence may need to be considered”. After some discussion, the Committee agreed to put both texts in square brackets with the definition of “convincing” and “probable” and consider the matter at the next session.

50. The Committee agreed with the following amendment on the first sentence of the first bullet point: to put “relevant” at the beginning of the sentence, to delete “strength of” before “evidence”; to rephrase “the nutrient-noncommunicable disease risk relationship” as “the relationship between nutrient and noncommunicable disease risk”; and to include “including validated biomarkers for relevant disease risk”.

3.2 Selection of suitable data sources to establish NRVs-NCD

51. Regarding section 3.2.1, one delegation proposed that the sentence should begin with the first option rather than the second option for consistency with the vitamin and mineral NRV principles. The Committee however agreed with the second option because that improved the clarity of the text and the inconsistency should be considered when these two annexes would be consolidated. Section 3.2.2 was amended accordingly.

52. Some observers proposed that the last sentence in section 3.2.2 should be an independent paragraph as it would be applied to both section 3.2.1 and section 3.2.2. The Committee did not agree because the text was designated only for the recognized authoritative scientific bodies other than FAO/WHO.

53. One observer proposed to include “independent” before recognized authoritative scientific bodies in section 3.2.2 and section 3.3.2. The Committee noted that it had already stated that the review of the science should be independent and that the recognized authoritative scientific bodies was expected to be independent and therefore the Committee agreed not to amend the text.

54. One delegation proposed to remove “as appropriate” in the last sentence of section 3.2.2 and the Committee agreed.

55. In section 3.2.3, the Committee agreed to replace “these values” with “the daily intake reference values” for clarification and replace “healthy populations” with “the general population” for consistency.

3.3 Selection of appropriate basis for determining and expressing NRVs-NCD

56. In section 3.3.1, one delegation raised the question of how the principle applied in the case of NRVs for nutrients associated with diet-related noncommunicable diseases and indicated that for certain nutrients there might be evidence of a positive association between its intake and the risk of developing a disease or disorder but there is not necessarily a clearly identifiable threshold. The Committee agreed to make “a quantitative reference value” plural as more than one quantitative reference values for daily intake could be obtained from scientific evidence.

57. One delegation proposed to insert “FAO/WHO or other” before “recognized authoritative scientific bodies” in section 3.3.2 and section 3.4 for consistency and the Committee agreed with the proposal.

58. Regarding the last sentence of section 3.3.5, the Committee agreed to ask CCFL to consider the question of whether to revise section 3.4.4 of the Guidelines on Nutrition Labelling (CAC/GL 2-1985) to insert a reference energy value in nutrition labelling.

3.4 Consideration of daily intake values for upper levels

59. Some delegations proposed to delete the section as it was not clear how to apply the principle to diet-related noncommunicable disease and as the scientific data to establish the upper levels for many of the nutrients associated with NCDs were insufficient or inconclusive. Other delegations expressed the view that the section was necessary that Acceptable Macronutrient Distribution Range (AMDR) should be added as an example and that UL and AMDR has been recognized by authoritative scientific bodies. After some discussion, the Committee agreed to include the sentence with AMDR as an example and remove the square brackets from the section. The Delegation of Malaysia expressed a reservation on this decision.
2. Definitions

2.1 Nutrient Reference Values – Noncommunicable Disease (NRV-NCD)

60. One delegation proposed to move “including validated biomarkers for disease risk” from section 3.1 to this section. The Committee did not agree with the proposal as the biomarkers should appear in relation to scientific evidence and the definition should be consistent with the definition of NRVs developed by CCFL.

61. The Committee agreed to remove “chronic” for consistency and refer to “diet-related noncommunicable diseases”.

2.2 Daily Intake Reference Values

62. The Committee agreed to delete both texts in square brackets as definition should be generic. The Committee also agreed to move the last sentence of the section to the end of section 2.4 as it was more appropriate.

2.3 Upper Level of Intake, 2.4 Acceptable Macronutrient Distribution Range (AMDR)

63. The Committee agreed to include these two definitions as these terms appeared in section 3.4 and to replace “chronic” in section 2.4 with “diet-related noncommunicable” for consistency.

Other issues identified by eWG

64. Due to time constraints, the Committee agreed to consider the issues identified by the eWG at the next session.

Electronic Working Group

65. The Committee agreed to establish an eWG chaired by the United States of America and co-chaired by Thailand and Chile, to work in English and Spanish to prepare a revised document for the next session that would:

1) Focus on text left in brackets in the proposed draft Annex on general principles for NRVs-NCD.

2) Propose in a separate document for consideration a draft Annex to the Guidelines on Nutrition Labelling that consolidates the Annex on general principles for establishing vitamin and mineral NRVs and NRVs-NCD.

3) Further consider proposals for the need for one or more additional NRVs-NCD for other nutrients with a convincing level of scientific evidence;

4) Make proposals on additional issues for consideration in paragraphs 129 to 135 of CX/NFSDU 11/33/6 including
   a) Whether more than one NRV could be set for certain nutrients
   b) Proposed amendments to Section 3.4.4 of the Guidelines on Nutrition Labelling to refer to CCFL that relate to the listing of NRVs, and
   c) Evaluate the interest in proposing new work to develop NRVs for total fat, available carbohydrate, and protein based on considerations other than diet-related NCDs such as energy balance.


66. The Committee agreed to return the Proposed Draft General Principles, as amended at the present session, to Step 3 for comments, redrafting by a working group as indicated above, further comments and consideration at the next session (see Appendix V).
Proposed Draft Nutrient Reference Values for Nutrients Associated with Risk of Diet-Related Noncommunicable Diseases for General Population (NRVs-NCD) (Agenda Item 4b)

67. The Committee recalled that its last session agreed that in conjunction with the work on the Principles (Agenda Item 4a); the working group would also make proposals on NRVs for saturated fatty acid and sodium for consideration at the next session.

Saturated Fatty Acids

68. The Delegation of Thailand, as co-chair of the eWG, informed the Committee that the eWG had concluded that based on the draft principles two joint FAO/WHO expert consultation reports were proposed as primary data sources for the eWG to consider in proposing NRVs-NCD for these two nutrients: 1) for SFA—the report of the 2008 joint FAO/WHO expert consultation on fats and fatty acids in human nutrition (FNP 91), and 2) for sodium—the report of the 2002 joint FAO/WHO expert consultation on diet, nutrition and the prevention of chronic diseases (TR 916).

69. Many delegations agreed with the view of the eWG and supported the value 20 g as an NRV-NCD for saturated fatty acids. Some delegations also noted that 20 g was equivalent to 9% energy from saturated fatty acids in a reference daily intake 8370 kJ/ 2000 kcal.

70. The delegation of Malaysia and the observers of IDF and NHF did not support to establish an NRV-NCD for saturated fatty acids, because no convincing evidence had been provided to show any relationship between those amounts of saturated fatty acids and CVD; the ‘convincing’ evidence cited in the proposal related only to replacing saturated fatty acids with polyunsaturated fatty acids; NRV for SFAs based on replacement with polyunsaturated fatty acids was difficult for the general consumers to comprehend; the Joint FAO/WHO Expert Consultation Report on Fats and Fatty Acid recommended that the amount of polyunsaturated fatty acids should be considered; and saturated fatty acids were diverse groups of compounds with different physiological effects, including different effects on blood lipids. The replacement of saturated fatty acids could have adverse effects on health.

71. One delegation noted that there is convincing evidence relating saturated fat to CVD, and since the benefit for decreased CVD risk of lowering saturated fatty acid intake is realized when saturated fatty acid is replaced with polyunsaturated fatty acids (PUFAs), there may also be a need to include in the NRV only those saturated fatty acids linked to increased risk of CVD.

Sodium

72. The Delegation of Chile, as co-chair of the eWG, informed the Committee that the eWG had concluded that NRV-NCD on sodium should be established taking into consideration the draft principles considered under Agenda Item 4a and had proposed 2000 mg as a basis for a proposed NRV-NCD.

73. The Committee generally supported the outcome of the eWG and the level proposed. The Observer of EUSalt expressed the view that recent studies questioned the relationship between salt intake and cardiovascular diseases.

74. Regarding the FAO/WHO data sources, the Representative of WHO clarified that an additional reference should be made to the Prevention of cardiovascular disease: Guidelines for assessment and management of cardiovascular risk. Geneva, World Health Organization, 2007 which were based on systematic reviews.

75. In reply to a question from one observer as to why the value was expressed in milligrams instead of grams, the Delegation of Chile explained that many delegations supported the use of milligrams in the eWG, that the sodium content was expressed in milligrams in most papers, that milligram was used for other minerals such as magnesium and iron, and that expressing in milligrams, resulting in higher numbers, was preferable for consumer information purposes.

---

6 CX/NFSDU 11/33/6 (Report of electronic working group), CX/NFSDU 11/33/6-Add.1 (Comments of Brazil, Chile, China, Colombia, Egypt, Japan, Malaysia, Norway, Philippines, Thailand, United States of America, Uruguay, ICBA, IDF and NHF), CX/NFSDU 11/33/6-Add.2 (Comments of Canada, European Union, Mexico and Nicaragua), CRD 4 (Comments of Mali), CRD 6 (Comments of Australia, Nicaragua, Turkey and FoodDrinkEurope), CRD 10 (Comments of Indonesia), CRD 14 (Comments of Jamaica), CRD 17 (Comments of Malaysia)
Status of the Proposed Draft Nutrient Reference Values

76. After some discussion, the Committee agreed to advance the proposed draft nutrient reference values, 20 g for saturated fatty acid and 2000 mg for sodium, to Step 5/8 for adoption by the 35th Session of the Codex Alimentarius Commission and inform them to CCFL (see Appendix III). The Delegation of Malaysia expressed its reservation on the NRV for saturated fatty acids.

PROPOSED DRAFT REVISION OF THE CODEX GENERAL PRINCIPLES FOR THE ADDITION OF ESSENTIAL NUTRIENTS TO FOODS (CAC/GL 9-1987) (Agenda Item 5)

77. The Committee recalled that its last session had agreed to return the Proposed Draft Revised General Principles for redrafting by electronic and physical working groups chaired by Canada and co-chaired by Mexico and New Zealand, circulation for comments at Step 3, and consideration at the next session.

78. The delegation of Canada, as chair of the working group, introduced CRD 2, the report of the physical working group and informed the Committee that the pWG had considered the structure of the document, purposes of each section and individual principles and had not discussed in detail the wording of the principles. The working group had noted the following points for further discussion:

- Consider having separate general/overarching principles and guidance factors
- Principles specific to a particular type of addition could be considered as “additional” to the overarching/general principles
- Additional discussion is needed on the inclusion of purposes of addition in the introduction section
- Discussions are required on the inclusion of the different types of the addition in the General Principles/Guidelines

79. The Committee expressed its thanks to Canada, New Zealand and Mexico and to the working group. The Committee, noting that it could not consider the document due to time constraints agreed to return the proposed draft revision for redrafting by an eWG chaired by Canada and co-chaired by New Zealand and working in English, circulation for comments at Step 3, and consideration at the next session. The terms of reference were as follows:

- Obtain agreement on the structure (format) of the General Principles considering both headings and subheadings where these are required.
- Consider sections 3 to 7 of the General Principles (CAC/GL 9-1987) and obtain agreement on which principles are overarching or of general applicability, which principles are additional for specific types of additions, and which principles could be considered guidance factors rather than principles. This would include discussion of which principles are to be retained and which may not be needed.
- Consider whether the purposes of addition should be stated in the Introduction with principles for these included in the overarching or general principles section.
- Consider which definitions are required.
- Consider the level of demonstration of public health need required to support mandatory versus that required for voluntary addition of essential nutrients.

80. In reply to the comments that the eWG should work on the structure of the document first, the Delegation of Canada said that this could be done but they could be needed to revisit changes during the process to review each of principles. The Committee noted that the eWG should prioritize its work. The Delegation of EU noted that the question of the level of the demonstration of the public health need to justify the type of addition was not a priority at this stage.
PROPOSED DRAFT REVISION OF THE GUIDELINES ON FORMULATED SUPPLEMENTARY FOODS FOR OLDER INFANTS AND YOUNG CHILDREN (Agenda Item 6)  

81. The Committee recalled that its last session had agreed to return the Proposed Draft Guidelines for redrafting by an electronic working group chaired by Ghana and to establish a physical working group, chaired by Ghana and co-chaired by the United States of America which would meet immediately prior to the 33rd Session.

82. The Delegation of Ghana introduced the report and noted that the e-WG had taken into account two rounds of comments to prepare a revised version, which was subsequently considered by the physical working group and further revised as appears in CRD 1. The Delegation indicated that no conclusion had been reached on the inclusion of the Table in the Annex, and this would require further consideration.

83. The Committee expressed its thanks to Ghana, the United States and both working groups for their excellent work and considered the text section by section. The following amendments and comments were made in addition to editorial changes.

Title

84. The Chairperson recalled that the title had already been amended to replace the phrase “complementary foods” with “supplementary foods”, as defined by WHO.

2. Scope

85. Several delegations and observers proposed to refer to the WHO Global Strategy for Infant and Young Child Feeding and to one or more of the following World Health Assembly (WHA) Resolutions: WHA54.2 (2001), WHA 49.15(1996), WHA 55.25(2002) and WHA 63.23 (2010) in view of their relevance to the products under consideration. The Committee also noted a suggestion from one delegation to insert specific text from relevant WHA Resolutions in the standard for ease of reference.

86. Several delegations pointed out that WHA Resolutions were applicable to member countries and repeating them in a standard was not necessary, as the purpose of the scope was to define the products covered by the standard and therefore did not support the inclusion of any such reference. Some delegations also pointed out that WHA Resolutions were issued regularly and references to WHA Resolutions in the Guidelines could become rapidly outdated.

87. With reference to the status of the WHA resolutions, the Representative of WHO informed the Committee that a WHA resolution is not legally binding, but represents political commitment on the part of Member States and as such create a sense of accountability that Member States will implement in good faith the requests made to them by resolutions. The Representative indicated that WHA resolutions constitute international practice and consensus language that are also used in other international fora and in this context, including references to WHA resolutions or WHO Global Strategies in Codex guidelines should not pose any problem.

88. After some discussion, the Committee agreed to insert the wording used in the scope of the Standard for Cereal Based Foods, referring to the Global Strategy for Infant and Young Child Feeding and World Health Assembly Resolution WHA54.2 (2001).

89. The Committee also noted a proposal to address inappropriate promotion of complementary foods and noted that such issues would be considered in the Labelling section.

3. Description

90. In section 3.1, some delegations indicated that the term “improved nutritional quality” was not clear and could be promotional and also could create confusion by implying that the family diet was not adequate. The Committee agreed that the paragraph was amended to refer to “appropriate nutritional quality” with additional text to explain the purpose of such formulation.

---

8 CX/NFSDU 11/33/8; CX/NFSDU 11/33/8-Add.1 (comments of Bolivia, Brazil, Chile, China, Colombia, Egypt, European Union, Malaysia, New Zealand, Peru, South Africa, United States of America, Uruguay, GAIN, IDF), CX/NFSDU 11/33/8-Add.2 (Comments of Australia, Mexico), CRD 1 (report of the physical working group), CRD 4 (Comments of Mali), CRD 8 (Comments of Botswana, Nicaragua), CRD 10 (Comments of Indonesia), CRD 11 (Comments of IBFAN), CRD 16 (Comments of Switzerland), CRD 17 (comments of Malaysia), CRD 18 (comments of ISDI)
91. With reference to the definition of complementary feeding period, the Representative of WHO indicated that for children 6 - 24 months the scientific evidence available indicates there is a demonstrated need for complementary foods with certain energy and nutrient density without which morbidity and mortality would be increased. Beyond the age of 24 months, the need for such foods has not been demonstrated. The WHO agreed that the following sentence could be included in 96bis as a committee agreement similar to the following text "The committee agreed to insert a footnote referring to the 2003 and 2005 WHO guiding principles documents in addition to the 2002 WHO report of a global consultation".

92. The Committee agreed that complementary foods can be used for older infants and young children 6 to 24 months and beyond. The Committee also agreed to insert in the footnote references to the 2003 and 2005 WHO guiding principles documents in addition to the 2002 WHO report of a global consultation.

4. Suitable raw materials and ingredients

93. In section 4.1.2.1 it was clarified that protein content is at least 20% on a dry weight basis.

94. In section 4.1.2.3 the text on phytoestrogens was amended for clarification purposes and to make it more general, as it did not apply only to soybean.

95. As regards section 4.1.3 Oil seed flours and oil seed protein products, some delegations expressed the view that some defatted oilseed flours and protein isolates were not fit for human consumption and should be deleted, especially defatted cottonseed flour, which is a by-product of the cotton industry and is commonly used as animal feed or fertiliser. It was however recalled that this product had been included in the list as it was used for human consumption in some countries. The text was amended to clarify that the products in section 4.1.3 could be used if produced and appropriately processed for human consumption.

96. The Committee asked the Representative of FAO to provide updated information at the next session on current references for producing and processing various seeds, legumes and pulses from FAO and other authoritative sources to update to the section.

97. The Committee noted a proposal to place groundnuts in square brackets due to allergenic reactions, however it was recalled that groundnuts are an important ingredient of the local diet in several regions and they were retained in the list.

98. Following a proposal to add other oilseeds to the list, the text was amended to make it clear that the list provided only examples of commonly used oil seeds, and therefore countries could use other edible oilseeds available to them.

99. In reply to some questions on the safety of the raw materials and possible contamination, especially by mycotoxins, the Secretariat recalled that several codes of practice developed by the Committee on Contaminants in Foods can provide guidance to governments in this area, especially the Code of Practice for the Prevention and Reduction of Aflatoxin Contamination in Peanuts (CAC/RCP 55-2004) and the Code of Practice for the Prevention and Reduction of Mycotoxin Contamination in Cereals (CAC/RCP 51-2003). It was agreed to insert these references in the relevant sections.

100. In section 4.1.4, it was agreed that “derived protein concentrates” from the animal source foods mentioned in the section could be used and the text was amended accordingly.

101. The Committee agreed with the proposal from some delegations to include a new section on fruit and vegetables as they can be good sources of micronutrients and their addition can be technologically feasible.

102. The Committee noted that one delegation proposed that vitamins and minerals should be included.

4.2 Other ingredients

103. The Committee agreed to add a reference to the additives used in the Standard for Canned Baby Foods and to align the section with text of the additives section in the Standard for Processed Cereal Based Foods in order to ensure consistency.

5. Technologies for and effects of processing

104. The Committee agreed with the proposal from an Observer to include a reference to the Code of Practice for the Reduction of Acrylamide in Foods (CAC/RCP 67-2009) in the relevant section.
105. In section 5.1, a reference to legumes was added for consistency with other sections. In section 5.3, the Committee discussed the appropriate term to be used concerning the effects of toasting: as heat resistant microorganisms might not be destroyed, the text was amended to reflect that microorganisms are reduced, as well as enzyme activity with heating.

106. The Committee noted a proposal to prohibit the use of ingredients treated by ionizing radiation, as in the Standard for Processed Cereal-Based Foods.

6. Nutritional composition and quality factors

107. The Committee agreed to change the title to “nutritional composition and quality factors” as it was more appropriate.

6.1 General Aspects

108. The second indent, “nutrient content of breast milk and breastmilk substitutes” was deleted and the third indent was amended to read “dietary habits and infant feeding practices” to make the text more general and cover all situations.

109. In section 6.1.1 the Committee agreed to replace “costs” with “quality” of raw materials and ingredients.

110. In section 6.1.3 some delegations expressed the view that 10g was a very small portion and could be considered as food for medical purposes, and in this case reference should be made to medical supervision. As an alternative, an observer suggested to use these foods subject to the advice from an independent health worker. It was also suggested that serving size should be addressed under the instructions for use. The Committee confirmed that in accordance with the definition, these foods are intended for the general population and not for medical purposes, and some amendments were made for clarification purposes.

111. In section 6.3.5 the Committee agreed to change the minimum protein content to 6% and the description of upper limit to “and typically should not exceed 15%” to allow for a broad range of products as proposed by ESPGHAN.

6.4 Fat

112. The Committee agreed to change the minimum fat content to 20% as proposed by ESPGHAN.

113. It was agreed to retain section 6.4.2 and the “alternative wording” as a new section 6.4.3 as it provided useful guidance on fatty acids.

6.5 Carbohydrates

114. Some delegations proposed to establish a maximum level of use for nutritive sweeteners, and noted that initially a maximum level of 10% was specified in the Guidelines. The Committee however could not come to a conclusion and retained the current text in square brackets for further consideration. The last sentence on dietary fibre was retained without square brackets as there was agreement on the maximum level.

6.6 Vitamins and Minerals

115. In section 6.6.1.2, the Representative of WHO indicated that for various reasons, the intake monitoring assessment planning programme (IMAPP), when completed, would not be a WHO product and therefore the reference was removed.

116. In section 6.6.2, the Committee agreed to remove the text in the square brackets and “cost”.

117. The term fortification was replaced with “nutrient addition” in the title of section 6.6.3 and some references were updated in the text.

New section 7

118. The Committee agreed to insert a section on Contaminants, using the text from the Standard for Processed Cereal-Based Foods.

8. Hygiene

119. The Section was updated to ensure consistency with other standards and references to the relevant codes of practice were inserted.
9. Packaging

120. An additional sentence on packaging material was inserted in section 9.2 to ensure consistency with the Standard for Processed Cereal-Based Foods.

10. Labelling

121. In response to some questions on general labelling requirements such as the language used and the expiry date, the Committee recalled that these provisions were covered in the General Standard for the Labelling of Prepackaged Foods, which applied to all foods.

122. In section 10.2.1.1 Name of the food, it was clarified that the true nature of the food should be reflected in the labelling and the rest of the paragraph was simplified by transferring some provisions to the instructions for use, which was also redrafted for clarification purposes as regards the age from which the product is recommended for use.

123. In section 10.2.4.6, it was agreed that foods not consumed during feeding should be discarded “unless consumed within the period recommended by the manufacturer under the instructions of use.”

124. The Committee noted the comments of an observer that description of the product should appear only in the list of ingredients in order to prevent inappropriate promotion of foods for infants and children and that family food should be consumed after one year of age.

Annex

125. Due to time constraints, it was not possible to consider the Annex at the session and it was agreed to consider it at the next session.

Status of the Proposed Draft Revised Guidelines for Formulated Complementary Foods for Older Infants and Young Children

126. The Committee agreed to advance the Proposed Draft Guidelines to Step 5 for adoption by the 35th Session of the Codex Alimentarius Commission (see Appendix IV)

PROPOSED DRAFT AMENDMENT OF THE STANDARD FOR PROCESSED CEREAL-BASED FOODS FOR INFANTS AND YOUNG CHILDREN (CODEX STAN 74-1981) TO INCLUDE A NEW PART B FOR UNDERWEIGHT CHILDREN (Agenda Item 7)

127. The Committee recalled that its last session had agreed to ask the 34th Session of the Commission to approve new work on the inclusion of a New Part B for Underweight Children in the Standard for Processed Cereal-Based Foods for Infants and young Children (CODEX STAN 74-1981) and to establish an electronic Working Group chaired by India to prepare a draft New Part B of the Standard for circulation at Step 3 and consideration by the next Session.

128. The Delegation of India, as chair of the eWG, introduced the document CX/NFSU 11/33/9 and informed the Committee that the eWG had considered the proposed draft thoroughly, especially essential composition, cereal content, energy density and protein content.

129. The Committee expressed its thanks to India and to the working group. The Committee, noting that it could not consider the document due to time constraint agreed to return the proposed draft amendment for redrafting in the light of the written comments by an eWG chaired by India and working in English, circulation for comments at Step 3, and consideration at the next session.

PROPOSAL TO REVIEW THE CODEX STANDARD FOR FOLLOW-UP FORMULA (CODEX STAN 156-1987) (Agenda Item 8)

130. The Committee recalled that at its last session the Delegation of New Zealand had proposed to prepare a discussion document for the Committee to consider the revision of part or all of the Standard for Follow-up Formula (CODEX STAN 156-1987) and that it had agreed with the proposal.

---

9 CX/NFSU 11/33/9, CRD 7 (Comments of Botswana, European Union, Malaysia, IBFAN), CRD 10 (Comments of Indonesia), CRD 12 (Comments of South Africa), CRD 17 (Comments of Malaysia), CRD 19 (Comments of Paraguay)

10 CX/NFSU 11/33/10, CRD 4 (Comments of Mali), CRD 5 (Comments of Egypt, Thailand), CRD 10 (Comments of Indonesia), CRD 15 (Comments of IBFAN, IACFO), CRD 19 (Comments of Paraguay), CRD 20 (Comments of Republic of Korea)
131. The Delegation of New Zealand, introducing the document CX/NFSDU 11/33/10, noted that the current standard was developed over 20 years ago and required updating to take into account technological developments and the diversification of follow-up formula in several countries. The Delegation therefore proposed to review the Standard and asked the Committee whether the Standard should be reviewed fully or partially.

132. According to the written comments, the Chair noted that there appeared to be support for the review the standard but the Committee should discuss whether it should be a partial or full review at the next session.

133. The Representative of WHO informed the Committee of the work underway in WHO concerning follow-up formula including the preparation of an information statement on follow-up formula in the context of the Code of Marketing of Breast-milk Substitutes which should be issues shortly.

134. The Committee expressed its thanks to New Zealand for the elaboration of the document. The Committee agreed to consider the matter at its next session as it did not have enough time to discuss it at the current session.

OTHER BUSINESS AND FUTURE WORK (Agenda Item 9)

135. Neither other business nor future work was proposed at the session.

DATE AND PLACE OF THE NEXT SESSION (Agenda Item 10)

136. The Committee was informed that its 34th Session would take place in Germany, from 3 to 7 December 2012.
<table>
<thead>
<tr>
<th>SUBJECT MATTER</th>
<th>STEP</th>
<th>ACTION BY:</th>
<th>DOCUMENT REFERENCE (REP12/NFSDU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Draft Nutrient Reference Values (NRVs)</td>
<td>5/8</td>
<td>Governments 35th CAC</td>
<td>para. 76 Appendix III</td>
</tr>
<tr>
<td>Proposed Draft Revision of the Guidelines on Formulated Supplementary Foods for Older Infants and Young Children (CAC/GL 8-1991)</td>
<td>5</td>
<td>Governments 35th CAC</td>
<td>para. 126 Appendix IV</td>
</tr>
<tr>
<td>General Principles for Establishing Nutrient Reference Values for Nutrients Associated with Risk of Diet-Related Non-communicable Diseases for General Population (NRVs-NCD)</td>
<td>2/3</td>
<td>Governments eWG led by United States and co-chaired by Thailand and Chile Governments 34th CCNFSDU</td>
<td>para. 66 Appendix V</td>
</tr>
<tr>
<td>Proposed Draft Additional or Revised Nutrient Reference Values for Labelling Purposes in the Codex Guidelines on Nutrition Labelling</td>
<td>2/3</td>
<td>eWG led by Australia Governments 34th CCNFSDU</td>
<td>para. 38</td>
</tr>
<tr>
<td>Proposed Draft Revision of the Codex General Principles for the Addition of Essential Nutrients to Foods (CAC/GL 9-1987)</td>
<td>2/3</td>
<td>eWG led by Canada and co-chaired by New Zealand Governments 34th CCNFSDU</td>
<td>para. 79</td>
</tr>
<tr>
<td>Proposed Draft Amendment of the Standard for Processed Cereal-Based Foods for Infants and Young Children (CODEX STAN 74-1981) to Include a New Part B for Underweight Children</td>
<td>2/3</td>
<td>eWG led by India Governments 34th CCNFSDU</td>
<td>para. 129</td>
</tr>
<tr>
<td>Proposal to Review the Codex Standard for Follow-up Formula (CODEX STAN 156-1987)</td>
<td>-</td>
<td>34th CCNFSDU</td>
<td>para. 134</td>
</tr>
<tr>
<td>proposed draft revision of the list of food additives</td>
<td>-</td>
<td>Switzerland 34th CCNFSDU</td>
<td>para. 8</td>
</tr>
</tbody>
</table>
# APPENDIX I

**LIST OF PARTICIPANTS**

**LISTE DES PARTICIPANTS**

**LISTA DE PARTICIPANTES**

## CHAIRPERSON/PRÉSIDENT/PRESIDENTE

Dr Pia Noble  
Federal Ministry of Food, Agriculture and Consumer Protection  
Rochusstrasse 1  
53123 Bonn  
Germany  
Tel.: +49 (228) 99 529 4665  
Fax: +49 (228) 99 529 4965  
E-Mail: ccnfsdu@bmelv.bund.de

## ASSISTANT TO THE CHAIRPERSON/ASSISTANT AU PRÉSIDENT/ASISTENTE AL PRESIDENTE

Ms Katharina Adler  
Federal Ministry of Food, Agriculture and Consumer Protection  
Rochusstrasse 1  
53123 Bonn  
Germany  
Tel.: +49 (228) 99 529 4647  
Fax: +49 (228) 99 529 4965  
E-Mail: ccnfsdu@bmelv.bund.de

### MEMBER COUNTRIES/PAYS MEMBRES/PAYSES MIEMBROS

#### AUSTRALIA / AUSTRALIE

Ms Janine Lewis  
Principal Nutritionist  
Food Standards Australia New Zealand  
P.O.Box 7186  
Canberra BC ACT 2610  
Australia  
Tel.: +61 (2) 6271 2245  
Fax: +61 (2) 6271 2278  
E-Mail: janine.lewis@foodstandards.gov.au

Ms Angela O’Sullivan  
Manager, International Food Standards  
Australian Department of Agriculture, Fisheries and Forestry  
18 Marcus Clarke, Street  
2601 Canberra  
Australia  
Tel.: +61 (2) 6272 3871  
Fax: +61 (2) 6272 3025  
E-Mail: angela.osullivan@daff.gov.au

#### AUSTRIA / AUTRICHE

Dr Fritz Wagner  
Dept. Director  
Federal Ministry of Health  
Radetzkystrasse 2  
1030 Vienna  
Austria  
Tel.: +43 (1) 71100 4426  
Fax: +43 (1) 713404 1644  
E-Mail: fritz.wagner@bmg.gv.at

#### BELGIUM / BELGIQUE / BELGICA

Pascale De Gryse  
Service public fédéral de la Santé Publique, Sécurité de la Chaîne alimentaire et Environnement  
Eurostation Bloc II  
Place Victor Hugo 40 bte 10  
1060 Brussels  
Belgium  
Tel.: +32 2 524 7368  
Fax: +32 2 524 7399  
E-Mail: pascale.degrys@health.belgium.be

#### BENIN / BENIN

Mr Sétoundji Ignace Zinsou  
Chef Service Analyse Qualité et Législation Alimentaire  
Direction de l’Alimentation et de la nutrition Appliquee (DANA)  
Ministère de l’Agriculture, de l’Elevage et de la Pêche  
BP 295 Porto-Novo  
Benin  
Tel.: +229 202 457 91  
Fax: +229 2024 5792

#### BOLIVIA / BOLIVIE

Ms Elizabeth Cañipa de Arana  
Licenciada en Nutrition  
Ministerio de Salud y Deportes  
Calle Fernando Guachalla No 342, Edificio Victor  
5to. piso  
9513 La Paz  
Bolivia  
Tel.: +591 2 2243 796  
Fax: +591 2 2443 957  
E-Mail: ecanipa@yahoo.com
Mrs Maria Julia **Cabrera**
Nutritionist
CONAN
La casilla o PO Box es 88 La Paz
Bolivia
Tel.: +591 772 95884
E-Mail: mayayacabrerizo@yahoo.com

**Botswana**
Ms Lenkwetse **Bolaane**
Principal Health Officer (Nutrition)
Ministry of Health
P/Bag 00269 Gabarone
Gabarone
Botswana
Tel.: +267 363 2112
Fax: +267 390 2092
E-Mail: l bolaane@gov.bw

Ms Patience Priscilla **Madabe**
Senior Health Officer (Infant and Young Child Feeding)
Ministry of Health
P/Bag 00269 Gabarone
Gabarone
Botswana
Tel.: +267 363 2158
Fax: +267 390 2092
E-Mail: pmadabe@gov.bw

Mr Hussein **Tarimo**
Principal Scientific Officer, Food Safety
Executive Secretary- National Food Control Board
Ministry of Health
P.B. 00269 Gabarone
Gabarone
Botswana
Tel.: +267 363 121
Fax: +267 390 092
E-Mail: htarimo@gov.bw

**Brazil / Brasil**
Ms Elisabete **Gonçalves Dutra**
Technical Assistant
National Health Surveillance Agency – Anvisa
SIA, Trecho 5, Área Especial 57
71.205-050 Brasilia DF
Brazil
Tel.: +55 (61) 3462 5333
E-Mail: elisabete.goncalves@anvisa.gov.br

Ms Ana Claudia **Araújo**
Specialist in Health Surveillance
National Health Surveillance Agency
Ministry of Health
SIA, Trecho 5, Área Especial 57
71.205-050 Brasilia DF
Brazil
Tel.: +55 (61) 3462 5329
E-Mail: ana.firmo@anvisa.gov.br

Ms Erika **Carvalho**
ABIA – Brazilian Association of Food Industry
Av. Brigadeiro Faria Lima, 1478 – 11º andar
01451-001 São Paulo
Brazil
Tel.: +55 11 3030 1394
E-Mail: erika.carvalho@br.nestle.com

Mr Antonio **Mantoan**
ABIA – Brazilian Association of Food Industry
Av. Brigadeiro Faria Lima, 1478 – 11º andar
01451-001 São Paulo
Brazil
Tel.: +55 11 3030 1353
E-Mail: antonio.mantoan@mjn.com

Mrs Tania **Cunha Bahr**
Pharmacist
ABIAD Associação Brasileira da Indústria de Alimentos para Fins Especiais
Av. Iraí, 79 cj 114 b – Moema
04082-000 São Paulo
Brazil
Tel.: +55-11-5535-6725
Fax: +55-11-5535-6725
E-Mail: abiad@uol.com.br

**Canada / Canadá**
Ms Nora **Lee**
Chief, Nutrition Evaluation Division
Bureau of Nutritional Sciences
Food Directorate
Health Canada
251 Sir Frederick Banting Driveway,
P.L. 2203E
K1A OK9 Ottawa, Ontario
Canada
Tel.: +1 (613) 957 0352
Fax: +1 (613) 941 6636
E-Mail: nora.lee@hc-sc.gc.ca

Mrs Christina **Zehaluk**
Head, Nutrition Evaluation Division
Bureau of Nutritional Sciences
Food Directorate
Health Canada
251 Sir Frederick Banting Driveway
P.L. 2203
K1A OK9 Ottawa, Ontario
Canada
Tel.: +1 (613) 957 1739
Fax: +1 (613) 941 6636
E-Mail: christina.zehaluk@hc-sc.gc.ca
CHILE/CHILI
Dr Diego A. Gaitán Charry
Departamento de Alimentos y Nutrición
División de Políticas Públicas Saludables y Promoción de la Salud'
Ministerio de Salud
Mac-Iver 459 8º Piso
Santiago
Chile
Tel.: +56 2 5740 820
Fax: +56 2 6649 150
E-Mail: dgaitan@minsal.cl

CHINA/CHINE
Dr Xinxin Dong
Engineer
The Standard and Regulation Research Center
AQSIQ
909, Sanyuan Mansion,
No. 18 Xibahe Dongli, Chaoyang District
100028 Beijing
P.R. China
Tel.: +86 10 8460 3875
Fax: +86 10 8460 3098
E-Mail: dongxx@aqsiq.gov.cn

Mr Jingcheng Wu
Officer
Ministry of Health
1, Nanlu, Xizhimenwai Xicheng District
100044 Beijing
P.R. China
Tel.: +86 10 6879 2383
Fax: +86 10 6879 2608
E-Mail: wujch@moh.gov.cn

Mr Fuxiang Ma
Senior Engineer / Section Chief
the Food Production and Supervision Bureau Department,
AQSIQ
No. 9 Madian Donglu, Haidian District
10008 Beijing
P. R. China
Tel.: +86 10 8226 2218
Fax: +86 10 8226 0511
E-Mail: mafx@aqsiq.gov.cn

Prof Xiaoqiang Gao
Vice Director
National Center for Health Inspection and Supervision
No. 32 Jiaodaokou, Beisiantiao, Doncheng District
100007 Beijing
P. R. China
Tel.: +86 (10) 8402 7605
Fax: +86 (19) 8402 7605
E-Mail: gaoxiaqiang@hotmail.com

Prof Weixing Yan
National Institute for Nutrition and Food Safety
7 Panjiayuan Nanli, Chaoyang District
100021 Beijing
P.R. China
Tel.: +86 (10) 6777 6706
Fax: +86 (10) 6771 1813
E-Mail: yanwx1128@hotmail.com

Dr Junhua Han
Associate Professor
National Institute for Nutrition and Food Safety
7 Panjiayuan Nanli, Chaoyang District
100021 Beijing
P.R. China
Tel.: +86 (10) 6779 1259
Fax: +86 (10) 8772 0035
E-Mail: hanjhuas@163.com

Prof Shi An Yin
Director of Maternal and Child Nutrition
National Institute for Nutrition and Food Safety
Chinese Center for Diseases Control
29 Nan Wei Road, Xuanwu District
100050 Beijing
P. R. China
Tel.: +86 10 8313 2932
Fax: +86 10 8313 2932
E-Mail: shianyin@126.com

Mr Jian Wang
Senior Staff
Shanghai Entry-Exit Inspection and Quarantine Bureau,
AQSIQ
No. 1208 Minshen Rd. Shanghai
P. R. China
Tel.: +86 21 38620971
Fax: +86 21 68545464
E-mail: wjian@shciq.gov.cn

Ms Pui Shan Liu
Scientific Officer
Centre for Food Safety, Food and Environmental Hygiene Department, HKSAR Government
3/F, 4 Hospital Road, Sai Ying Roon.
Hong Kong
P. R. China
Tel.: +852 3962 2065
Fax: +852 2803 0534
E-Mail: mpslin@fehd.gov.hk

Dr Xuejun Zhao
Scientific and Regulatory Affairs Director
Dumex Baby Food Co. Ltd.
Building 12
27 Xin Jin Qiao Rd. Pudong
Shanghai, 201206
P. R. China
Tel.: +86 (21) 3860 8888
E-Mail: xuejun.zhao@danone.com
Mr Hongmin Xu  
Technical and Regulatory Director  
Amway (China) Co.Ltd  
41/F CITIC Plaza  
233 Tianhe N. Road  
510613 Guangzhou  
P. R. China  
Tel.: +86 (20) 8519 8818  
Fax: +86 (20) 3891 2877  
E-Mail: hongmin_xu@amway.com

Ms Lei Shi  
Regulatory Affairs Director  
Abbott China  
17th Floor Canway Building  
66 Nanlishi Road  
100045 Beijing  
P. R. China  
Tel.: +86 10 6802 8080-131  
Fax: +86 10 6808 0160  
E-Mail: bird.shi@abbott.com

Mr Lei He  
Senior regulatory Specialistg  
Abbott China  
17th Floor Canway Building  
66 Nanlishi Road  
100045 Beijing  
P. R. China  
Tel.: +86 10 6802 8080-132  
Fax: +86 10 6808 0160  
E-Mail: l.he@abbott.com

Ms Mona Wang  
Medical Director  
Sanofi Investment Co., Ltd. Shanghai Branch  
Flloor 31, office Bldg. Tower I Plaza 66  
No 1266 Nanjing Road (W)  
200040 Shanghai  
P. R. China  
Tel.: +86 21 6288 1616 6749  
Fax: +86 21 6288 2335  
E-Mail: mona.wang@sanofi.com

Ms Chunzhu Wu  
Senior Regulatory & Scientific Affairs Manager  
Nestle China Ltd.  
Level 9, Tower B, LSH Plaza, No 8 Wangjing Road  
Changyang District  
100102 Beijing  
P. R. China  
Tel.: +86 10 8434 7887  
Fax: +86 10 6438 9326  
E-Mail: chunzhu.wu@cn.nestle.com

Ms Qian Huang  
Regulatory Affairs Manager  
Wyeth Nutritional (China) Co. Ltd. (Pfizer Nutrition)  
8/F Tower B, 5th Square  
No 3-7 North Chao Yang Men Avenue  
Dong Cheng District  
100010 Beijing  
P. R. China  
Tel.: +86 10 8516 1063  
Fax: +86 10 8516 1199  
E-Mail: qian.huang@pfizer.com

Mr Tony Chow  
Regulatory and Quality Affairs Manager  
Wyeth (HK) Ltd.  
12/F Lincoln House, 979 King’s Road, Island East  
Hong Kong  
Hong Kong SAR  
Tel.: +852 6716 8967  
E-Mail: tony.chow@pfizer.com

COLOMBIA/COLOMBIE  
Mrs Laura Ótálora  
Representante de la Industria del Comité Nacional de Regimenes Especiales  
Comité Nacional de Regimenes Especiales  
Cll 76 N° 11-17 piso 3  
Bogotá  
Colombia  
Tel.: +57 3 1647 02781  
E-Mail: lauraotalora52@hotmail.com

COSTA RICA  
Ms Alejandra Chaverri Esquivel  
Ministry of Health  
Health Regulation Directorate, Normalization Unit  
16th Street, 6th and 8th Street  
10123-1000 San José  
Costa Rica  
Tel.: +506 2233 6922  
Fax: +506 2255 4512  
E-Mail: achaverri@ministeriodesarrollo.salud.go.cr

DENMARK / DANEMARK / DINAMARCA  
Ms Eva Lind Rasmussen  
Danish Veterinary and Food Administration  
Ministry of Food, Agriculture and Fisheries  
Moerkhøj Bygade 19  
2860 Soeborg  
Denmark  
Tel.: +45 7227 6676  
E-Mail: ela@fvst.dk
DOMINICAN REPUBLIC / RÉPUBLIQUE DOMINICAINE /
REPÚBLICA DOMINICANA
Dr Ángel Batista

EGYPT / ÉGYPTE / EGIPTO
Prof Mahmoud Mohammed Mostafa Saad
Prof. of Food Science and Technology Food Science Dep., Faculty of Agriculture Minufiya University Shebin El-Kom Egypt Tel. +20 2 266 4232 home E-Mail: drmahmoudmstf@yahoo.com
Mrs Nagia Attia
Senior Food Standards Specialist Egyptian Organization for Standardization and Quality 16, Tadreeb El-Modarrebeen St. Ameriya Cairo Egypt Tel.: +20 2 2284 5531 Fax: +20 2 2284 5504 E-Mail: moi@idsc.net.eg
Mr Yasser Khalil
Technical Officer Chamber of Food Industries 1195 Cornich El Nil Cairo Egypt Tel.: +20 2 2574 8627 Fax: +20 2 2574 8312 E-Mail: Yasser@egycfi.org.eg
Prof Essam Osman Fayed
Minister Plenipotentiary for Agricultural Affairs Agricultural Office Embassy of the Arab Republic of Egypt Villa Savoa Via Salaria 267 00199 Rome Italy Tel.: +39 06 864 8956 Fax: +30 06 854 2603 E-Mail: Egypt@agrioffegypt.it

ESTONIA / ESTONIE
Ms Juta Jaama
Senior Officer of the Food Safety Office Food and Veterinary Department Estonian Ministry of Agriculture 39/41 Lai Str. 15056 Tallinn Estonia Tel.: +372 6 256547 Fax: +372 6 256210 E-Mail: juta.jaama@agri.ee

ETHIOPIA / ÉTHIOPIE / ETIOPÍA
Mrs Asrat Wondimu Seraj
Associate Researcher Ethiopian Health & Nutrition Research Institute Arbognoch Road 5654 Addis Ababa Ethiopia Tel.: +251 112 756310 Fax: +251 112 758634 E-Mail: asrat1976@yahoo.com

EUROPEAN UNION / UNION EUROPÉENNE / UNIÓN EUROPEA
Mr Basil Mathioudakis
Head of Unit European Commission Health and Consumers Directorate-General (SANCO) Office B232 2/115 Rue Belliard 232 1049 Brussels Belgium Tel.: +32 (0) 2 295 9182 Fax: +32 (0) 2 295 1735 E-Mail: basil.mathioudakis@ec.europa.eu
Dr Eva Maria Zamora Escribano
Administrator responsible for Codex issues European Commission Health and Consumers Directorate General (SANCO) Rue Froissart 101 1049 Brussels Belgium Tel.: +32 (2) 299 8682 Fax: +32 (2) 299 8566 E-Mail: eva-maria.zamora-escribano@ec.europa.eu
Ms Helen Lee
Administrator European Commission Health and Consumers Directorate-General (SANCO) Office B232 2/106 1049 Brussels Belgium Tel.: +32 (2) 299 8668 E-Mail: helen.lee@ec.europa.eu
Ariane Vander Stappen  
European Commission  
Health and Consumers Directorate-General (SANCO)  
Office 2/007  
Rue Belliard 232  
1049 Brussels  
Tel.: +32 (2) 295 2158  
E-Mail: ariane.vander-stappen@ec.europa.eu

Ms Anna Lemström  
Senior Officer Food Policy  
Ministry of Agriculture and Forestry  
PB 30  
00023 Helsinki  
Finland  
Tel.: +358 9 1605 2305  
Fax: +358 9 1605 3338  
E-Mail: anna.lemstrom@mmm.fi

Dr Sirpa Sarlio-Lähteenkorva  
Ministerial Advisor  
Ministry of Social Affairs and Health  
P.O.Box 33  
00023 Helsinki  
Finland  
Tel.: +358 (9) 160 74035  
Fax: +358 (9) 160 73241  
E-Mail: sirpa.sarlio.lahteenkorva@stm.fi

Ms Ellie Daguet  
Chargée de mission Nutrition  
Ministère de l’Economie, des Finances et de l’Industrie  
Direction Générale de la Concurrence, de la Consommation, et de la Répression des Fraudes  
59 bd Vincent Auriol  
75703 Paris CEDEX 13  
France  
Tel.: +33 (1) 4497 3330  
Fax: +33 (1) 4497 3048  
E-Mail: ellie.daguet@dgccrf.finances.gouv.fr

Mrs Françoise Costes  
Chargée de mission Réglementaire  
ATLA  
42 Rue de Châteaudun  
75009 Paris  
France  
Tel.: +33 (1) 4970 7269  
Fax: +33 (1) 4280 6365  
E-Mail: fcostes@atla.asso.fr

Mrs Brigitte Lelièvre  
Regulation Affairs  
Syndicat Français de la Nutrition Spécialisée (SFNS)  
194, rue de Rivoli  
75001 Prais  
France  
Tel.: +33 (1) 4477 8585  
E-Mail: believre@alliance7.com

Mrs Jolanta Leone  
Danone Baby Nutrition  
383 Rue Philippe Héron  
69654 Villefranche sur Saône  
France  
Tel.: +33 (4) 7462 6374  
Fax: +33 (4) 7462 6183  
E-Mail: jolanta.leone@danone.com

Mr Malang N. Fofana  
Programme Manager / Secretary to National Codex/SPS Committee  
National Nutrition Agency (NaNA)  
Birtil Harding Highway Mile 7  
P.M.B. 162 Banjul  
Gambia  
Tel.: +220 4498851 or 9992531 or 3992531  
E-Mail: kekendoo@yahoo.com

Dr Hartmut Waldner  
Federal Ministry of Food, Agriculture and Consumer Protection  
Rochusstrasse 1  
53123 Bonn  
Germany  
Tel.: +49 (228) 99 529 4961  
Fax: +49 (228) 99 529 4965  
E-Mail: ccnfsdu@bmelv.bund.de

Dr. Anke Weissenborn  
Bundesinstitut für Risikobewertung  
Federal Institute for Risk Assessment  
Max-Dohrn-Straße 10  
10589 Berlin  
Germany  
Tel.: +49 (30) 8412 3812  
Fax: +49 (30) 8412 3715  
E-Mail: anke.weissenborn@bfr.bund.de

Dr Constanze Hiepler  
Scientific Regulatory Affairs  
Bundesverband der Hersteller für eine besondere Ernährung (Diätverband) e.V.  
Godesberger Allee 142-148  
53175 Bonn  
Germany  
Tel.: +49 (228) 308 5111  
Fax: +49 (228) 308 5150  
E-Mail: hieplers@diaetverband.de
Dr. Gerda Jost  
Manager Corporate & Regulatory Affairs  
Milupa GmbH  
Bahnstraße 14-30  
61381 Friedrichsdorf  
Germany  
Tel.: +49 (6172) 99 1423  
Fax: +49 (6172) 99 1244  
E-Mail: gerda.jost@danone.com

Dr. Susanne Kettler  
Director Regulatory Affairs  
Eu-Scientific & Regulatory Affairs  
Coca-Cola Services s.a.  
Chaussee de Mons 1424  
1070 Brüssel  
Belgium  
Tel.: +32 471 989045  
Fax: +32 (2) 559 2378  
E-Mail: skettler@coca-cola.com

Prof Berthold Koletzko  
German Society of Paediatrics  
Early Nutrition Academy  
Dr von Hauner Children’s Hospital  
University of Munich Medical Center  
Lindwurmstr. 4  
80337 München  
Germany  
Tel.: +49 89 5160 2826  
Fax: +49 89 5160 7742  
E-Mail: office.koletzko@med.uni-muenchen.de

Dr. Gert Krabichler  
Head Global Regulatory Affairs  
Merck Selbstmedikation GmbH  
Roesslerstraße 96  
64293 Darmstadt  
Tel.: +49 (6151) 7214 2264  
Fax: +49 (6151) 7214 2218  
E-Mail: gert.krabichler@merckgroup.com

Mrs Angelika Mrohs  
Bund für Lebensmittelrecht und Lebensmittelkunde e.V. (BLL)  
Claire-Waldoff-Straße 7  
10117 Berlin  
Tel.: +49 30 206143 146  
Fax: +49 30 206143 246  
E-Mail: amrohs@bll.de

Mr Norbert Pahne  
Managing Director  
Bundesverband der Hersteller für eine besondere Ernährung (Diätverband) e.V.  
Godesberger Allee 142-148  
53175 Bonn  
Germany  
Tel.: +49 (228) 308 5110  
Fax: +49 (228) 308 5150  
E-Mail: pahne@diaetverband.de

Mrs Antje Preussker  
Bund für Lebensmittelrecht und Lebensmittelkunde e.V. (BLL)  
Claire-Waldoff-Straße 7  
10117 Berlin  
Tel.: +49 30 206143 146  
Fax: +49 30 206143 246  
E-Mail: a.preussker@bll.de

Mrs Sabine Sulzer  
Nestlé Deutschland AG  
Lyoner Straße 23  
60528 Frankfurt am Main  
Germany  
Tel.: +49 69 6671 2276  
Fax: +49 69 6671 3440  
E-Mail: sabine.sulzer@de.nestle.com

Dr. Michael Tischler  
Manager Scientific Affairs  
Kraft Foods R & D, Inc.  
Bayerwaldstraße 8  
81737 München  
Tel.: +49 89 62738 6365  
Fax: +49 89 62738 6365  
E-Mail: mtischler@kraftfoods.com

GHANA  
Prof Anna Lartey  
Associate Professor  
University of Ghana, Department of Nutrition and Food Science  
P.O.Box LG 134, Legon  
Accra  
Ghana  
Tel.: +233 (21)513294  
E-Mail: aalartey@ug.edu.gh

Prof Esther Sakyi-Dawson  
University of Ghana, Department of Nutrition and Food Science  
P.O.Box LG 134, Legon  
Accra  
Ghana  
Tel.: +233 24 4367 242  
Fax: +233 302 500629  
E-Mail: esakyid@ug.edu.gh

Ms Joyce Okoree  
Codex Contact Point Officer  
Ghana Standards Board  
P.O.Box MB 245  
Accra  
Ghana  
Tel.: +233 302 519758  
Fax: +233 302 500092  
E-Mail: codex@gsb.gov.gh
Ms Yvonne Miguela Takyiaa Osei
Head, Food Service Establishment Inspection Unit
Food and Drugs Board
P.O.Box 2783. Cantonments
Accra
Ghana
Tel.: +233 244 377504
Fax: +233 302 225502
E-Mail: vonnes1978@yahoo.com

Mr Benjamin Osei Tutu
Head, Public Education and Foodborne Diseases Surveillance Unit
Food and Drugs Board
P.O.Box CT 2783, Cantonments
Accra
Ghana
Tel.: +233 21 233200
Fax: +233 302 500092
E-Mail: boseitutu@fdbghanago.gov.gh

Ms Genevieve Ofosuhemaa Baah
Head, Food and Drinks Laboratory
Ghana Standards Board
P.O.Box MB 245
Accra
Ghana
Tel.: +233 544 335484
Fax: +233 302 501195/6
E-Mail: audrey.essilfie@gh.nestle.com

GUINEA-BISSAU / GUINÉE-BISSAU

Mr Soares Faustino Vaz
Ministère du Commerce, Industrie, Tourisme e de l’Artisanat Directeur du Service de Normalisation et de Promotion de la Qualité
Palácio do Governo
Avenida Combatente da Liberdade da Pátria – Bairro Brá 269 Bissau
Guiné-Bissau
Tel.: +245 403 1340
Fax: +245 132 2277
E-Mail: bernardo.franca@france.national.gov.gu

Mrs Audrey Essilfie
Regulatory and Scientific Affairs Manager
Nestlé Ghana Limited
P.M.B. KIA Accra-Ghana
Accra
Ghana
Tel.: +233 244 662 735
Fax: +233 302 500092
E-Mail: audrey.essilfie@gh.nestle.com

HUNGARY / HONGRIE / HUNGRIA

Dr Éva Barna
Head of Department
National Institute for Food and Nutrition Science Gyáli út 3/a
1097 Budapest
Hungary
Tel.: +36 1 476 6450
Fax: +36 1 215 5369
E-Mail: barna.eva@oeti.antsz.hu

Mrs Ágnes Szegedyné Fricz
Ministry of Rural Development
Kossuth tér 11
1055 Budapest
Hungary
tel.: +36 1 795 3759
Fax: +36 1 795 0996
E-Mail: agnes.fricz@vm.gov.hu

INDIA

Mr Dr. K. V. Radhakrishna
Scientist ‘D’
National Institute of Nutrition
Jaiam–Osmania (P.O.)
500 007 Hyderabad.
India
Tel.: 098 858 604 59
Fax: 91-040 270 191 41
E-Mail: virjekki@yahoo.com

Ms Anita Makhijani
Asst. Technical Adviser, FNB,
Ministry of WCD, Govt. Of India
Room No. 016, Jeevandeep Building
Parliament Street
New Delhi – 110001
Ph-011-23743978
E-Mail: anitam_atafnb@yahoo.com

Mr Sh. S. K. Tiwari
Junior Inspecting Officer
Food Safety an Standards Authority of India
FDA Bhawan, New Delhi – 110002
Ph – 011-23237433
E-Mail: tiwari_fssa@yahoo.com

HUNDRUSA / INDONESIA

Mrs Tetty Helfery Sihombing
Director of Food Product Standardization
National Agency of Drug and Food Control
Jl. Percetakan Negara No 23
10560 Jakarta
Indonesia
Tel.: +62 (21) 4287 5584
Fax: +62 (21) 4287 5780
E-Mail: tetyhelfery@yahoo.com
Mrs Yusra **Egayanti**  
National Agency of Drug and Food Control  
JL Percetakan Negara 23  
10560 Jakarta  
Indonesia  
Tel.: +62 21 4287 5584  
Fax: +62 21 4287 5780  
E-Mail: egayanti@yahoo.com  

Prof Dr **Hardinsyah** (Master of Science / MS.)  
Department of Community Nutrition, Faculty of Human Ecology  
Bogor Agricultural University (IPB)  
Jl Wijaya Kusuma Raya no 45 Taman Yasmin  
Sektor I Kota Bogor, Jawa Barat  
16211 Bogor  
Indonesia  
Tel.: +62 2518345 278  
cell phone: +628 129192 259  
E-Mail: hardinsyah2010@gmail.com  

Mrs Elin **Herlina**  
Head of Subdirectorate for Evaluation of Foods for Special Dietary Uses  
National Agency of Drug and Food Control  
JL Percetakan Negara 23  
10560 Jakarta  
Indonesia  
Tel.: +62 21 4280 0221  
Fax: +62 21 4245 267  
E-Mail: elin_herlina_1@yahoo.com  

**ITALY** / **ITALIE** / **ITALIA**  
Mrs Brunella **Lo Turco**  
Ministero Politiche AgricoleAlimentari e Forestali  
Via XX Settembre, 20  
00187 Rome  
Italy  
Tel.: +39 (6) 46656047  
Fax: +39 (6) 48880273  
E-Mail: sar@mpaaf.gov.it  

Mrs Paola **Merciaro**  
Ministero Politiche AgricoleAlimentari e Forestali  
Via XX Settembre, 20  
00187 Rome  
Italy  
Tel.: +39 (6) 46656047  
Fax: +39 (6) 48880273  
E-Mail: p.merciaro@mpaaf.gov.it  

**JAPAN** / **JAPON** / **JAPÓN**  
Mr Naohiro **Masuda**  
Director  
Consumer Affairs Agency  
2-11-1 Nagata-cho, Chiyoda-ku  
100-6178 Tokyo  
Japan  
Tel.: +81 3 3507 9220  
Fax: +81 3 3507 9292  
E-Mail: g.codex-j@caa.go.jp  

Mr Hiroaki **Hamano**  
Technical Advisor  
Japan Health Food and Nutrition Food Association  
2-7-27 Sadohara-cho, Ichigaya, Shinjuku-ku  
162-0842 Tokyo  
Japan  
Tel.: +81 3 3268 3134  
Fax: +81 3 3268 3136  
E-Mail: hiroaki.hamano@danisco.com  

Dr Yoshiko **Ishimi**  
Chief, Department of Food Function and Labeling  
National Institute of Health and Nutrition  
1-23-1 Toyama, Shinjyuku-ku  
162-8636 Tokyo  
Japan  
Tel.: +81 (3) 3203 8063  
Fax: +81 (3) 3205 6549  
E-Mail: ishimi@nih.go.jp  

Dr Yayoi **Tsujiyama**  
Director  
Ministry of Agriculture, Forestry and Fisheries  
1-2-1 Kasumigaseki, Chiyoda-ku  
100-8950 Tokyo  
Japan  
Tel.: +81 3 3502 8732  
Fax: +81 3 3507 4232  
E-Mail: yayoi_tsujiyama@nm.maff.go.jp  

Mrs Amal **Hasen**  
Senior Chemist  
Ministry of Health – Nutrition Research Institute  
Adhamiyah-Waziriyah  
District 304  
Street 16 – Building 17 – Nutrition Research Institute  
NA Baghdad  
Iraq  
Tel.: +964 7903 353443  
E-Mail: amal_sahab@yahoo.com  

**ISRAEL** / **ISRAËL** / **ITALIA**  
Dr Ziva **Stahl**  
Director Nutrition Department  
Ministry of Health  
20 King David Street  
91010 Jerusalem  
Israel  
Tel.: +972 2 6228 855  
E-Mail: ziva.stahl@moh.health.gov.il
Prof Kazuhiko Yamada  
Technical Advisor  
Kagawa Nutrition University  
3-9-21, Chiyoda, Sakado  
350 0288 Saitama  
Japan  
Tel.: +81 (49) 282 3708  
E-Mail: g.codex-j@caa.go.jp  

Dr Kazushi Yamauchi  
Director  
Office of International Food Safety, Department of Food Safety  
Ministry of Health, Labour and Welfare  
1-2-2 Kasumigaseki, Chiyoda-ku  
100-8916 Tokyo  
Japan  
Tel.: +81 3 3595 2326  
Fax: +81 3 3503 7965  
E-Mail: g.codex-j@caa.go.jp  

Ms Reiko Yonekura  
Deputy Director  
Consumer Affairs Agency  
2-11-1 Nagata-cho, Chiyoda-ku  
100-6178 Tokyo  
Japan  
Tel.: +81 3 3507-9220  
Fax: +81 3 3507 9292  
E-Mail: codex-j@mhlw.go.jp  

Mrs Hana Kilani  
Head of Standard and Food Quality  
Jordan Food and Drug Administration  
Amman Shafa Badran  
Amman  
Jordan  
Tel.: 079 9054459  
E-Mail: hana.kilani@jfda.jo  

Dr Kimiyoshi Yamada  
Technical Advisor  
Kagawa Nutrition University  
3-9-21, Chiyoda, Sakado  
350 0288 Saitama  
Japan  
Tel.: +81 (49) 282 3708  
E-Mail: g.codex-j@caa.go.jp  

Dr Kazushi Yamauchi  
Director  
Office of International Food Safety, Department of Food Safety  
Ministry of Health, Labour and Welfare  
1-2-2 Kasumigaseki, Chiyoda-ku  
100-8916 Tokyo  
Japan  
Tel.: +81 3 3595 2326  
Fax: +81 3 3503 7965  
E-Mail: g.codex-j@caa.go.jp  

Ms Reiko Yonekura  
Deputy Director  
Consumer Affairs Agency  
2-11-1 Nagata-cho, Chiyoda-ku  
100-6178 Tokyo  
Japan  
Tel.: +81 3 3507-9220  
Fax: +81 3 3507 9292  
E-Mail: codex-j@mhlw.go.jp  

JORDAN/JORDANIE/JORDANIA  
Mrs Hana Kilani  
Head of Standard and Food Quality  
Jordan Food and Drug Administration  
Amman Shafa Badran  
Amman  
Jordan  
Tel.: 079 9054459  
E-Mail: hana.kilani@jfda.jo  

KENYA  
Mr Peter Mutua  
Standards Officer  
Kenya Bureau of Standards  
P.O.Box 54974  
00200 Nairobi  
Kenya  
Tel.: +254 (20) 6948 000  
Fax: +254 (20) 609 660  
E-Mail: mutuap@kbos.org  

Mr Samwel Mbugua  
Egerton University  
Department of Human Nutrition  
Faculty of Health Science  
P.O.Box 536  
20115v Njoro  
Kenya  
Tel.: +254 733 871 526  
E-Mail: samwel.mbugua2@gmail.com  

Mrs Brendah Obura  
Senior Public Health Officer  
Ministry of Public Health and Sanitation  
P.O.Box 30016  
00100 Nairobi  
Kenya  
Tel.: +254 711 359 009  
E-Mail: breobura@yahoo.com  

LESOTHO  
Dr. Masekonyela Sebotsa  
Director  
Food and Nutrition Coordinating Office (Cabinet)  
FNCO, P/Bag A78  
100 Maseru  
Lesotho  
Tel.: +266 2232 3716  
Fax: +266 2232 2179  
E-Mail: sebotsa@ananzi.co.za  

LITHUANIA/LITUANIE/LITUANIA  
Dr Indre Chmieliauskaite  
Chef Specialist  
Public Health Department  
Ministry of Health  
Vilniaus St. 33  
LT-01506 Vilnius  
Lithuania  
Tel.: +370 5219 3337  
Fax: +370 5266 1402  
E-Mail: indre.chmieliauskaite@sam.lt  

MALAYSIA/MALASIE/MALASIA  
Ms Fatimah Sulong  
Food Safety and Quality Division  
Ministry of Health Malaysia  
Level 3, Block E7, Parcel E  
Federal Government Administration Centre  
62590 Putrajaya  
Malaysia  
Tel.: +60 (3) 8885 0740  
Fax: +60 (3) 8885 0790  
E-Mail: fatimahsulong@moh.gov.my  

Dr Nagendran Balasundram  
Mission of Malaysia to the European Union  
Avenue de Tervueren 414A  
1150 Brussels  
Belgium  
Tel.: +32 2 7628 997  
Fax: +32 2 7628 998  
E-Mail: nagen@mpob.gov.my  

Mr Mohd Muslimin Hashim  
Malaysian Palm Oil Council  
2nd Floor, Wisma Sawit, Lot 6  
SS6 JalanPerbandaran  
47301 Kelana Jaya, Selangor  
Malaysia  
Tel.: +60 3 7806 4097  
Fax: +60 3 7806 2272  
E-Mail: muslimin@mpoc.org.my  

Dr Indre Chmieliauskaite  
Chef Specialist  
Public Health Department  
Ministry of Health  
Vilniaus St. 33  
LT-01506 Vilnius  
Lithuania  
Tel.: +370 5219 3337  
Fax: +370 5266 1402  
E-Mail: indre.chmieliauskaite@sam.lt  

MALAYSIA/MALASIE/MALASIA  
Ms Fatimah Sulong  
Food Safety and Quality Division  
Ministry of Health Malaysia  
Level 3, Block E7, Parcel E  
Federal Government Administration Centre  
62590 Putrajaya  
Malaysia  
Tel.: +60 (3) 8885 0740  
Fax: +60 (3) 8885 0790  
E-Mail: fatimahsulong@moh.gov.my  

Dr Nagendran Balasundram  
Mission of Malaysia to the European Union  
Avenue de Tervueren 414A  
1150 Brussels  
Belgium  
Tel.: +32 2 7628 997  
Fax: +32 2 7628 998  
E-Mail: nagen@mpob.gov.my  

Mr Mohd Muslimin Hashim  
Malaysian Palm Oil Council  
2nd Floor, Wisma Sawit, Lot 6  
SS6 JalanPerbandaran  
47301 Kelana Jaya, Selangor  
Malaysia  
Tel.: +60 3 7806 4097  
Fax: +60 3 7806 2272  
E-Mail: muslimin@mpoc.org.my
Mr Boon Han Ooi  
Malaysian Palm Oil Council  
2nd Floor, Wisma Sawit, Lot 6  
SS6 Jalan Perbandaran  
47301 Klena Jaya, Selangor  
Malaysia  
Tel.: +60 3 7806 4097  
Fax: +60 3 7806 4097  
E-Mail: boonhan@mpoc.org.my

Mali  
Dr Bareye Ouologuem  
Chef de la Division Surveillance Epidemiologique et Communication  
Agence nationale de la Securite Sanitaire des Aliments  
Centre Commercial, Rue 305 quartier du Fleuve  
BPE 2362  
Bamako  
Mali  
Tel.: +223 2022 0754  
Fax: +223 2022 0747  
E-Mail: bareye_ouolo@yahoo.fr

Mauritania / Mauritanie  
Dr Abdallahi Baouhabib  
Chef de Service des Maladies Non Transmissibles  
Ministère des la Santé  
Nouakchott, Mauritania  
BP : 77  
Tel.: +222 22 24 37 87  
Fax: +22245 25 12 27  
E-Mail: ould.mohamed@yahoo.fr

Mexico / Mexique / Mèxico  
Mr Javier Luna Carrasco  
Coordinador Técnico CCNFSDU  
ILSI de México A. C.  
Clzada de Tlalpan No 3092  
Col. Ex-Hacienda Coapa  
04980 Mexico, DF  
México  
Tel.: +52 55 5809 7579  
E-Mail: javier.luna@abbott.com  
Ms Elvia Aguilar  
Scientific and Regulatory Affairs  
Canainca  
Ruben dario 115, Col. Bosque de Chapultepec  
11580 México, D.F.  
México  
Tel.: +52 55 5262 2129  
E-Mail: elaguilar@coca-cola.com  
Mr Carlos Almanza Rodriguez  
Regulatory Affairs Manager  
Kellogg Company México, S. de R. L. de C.V.  
kam. 1 Carr. al Campo Militar  
Col. San Antonio de la Punta  
76135 Queretaro  
México  
Tel.: +52 442 2111 300 ext 6710  
E-Mail: carlos.almanza@kellogg.com

Ms Xochitl Morales Macedo  
Coordinador  
ISDI-CANILEC  
Lago Zurich No. 245/Edificio Presa Falcón Piso 11  
Col. Granada Ampliacion, Delegation Miguel Hidalgo  
11529 Mexico City  
México  
Tel.: +52 55 1103 9604  
E-Mail: xochitl.morales@mijn.com

Ms Beatriz Pelayo Consuegra  
Regulatory Affairs  
Consejo Agroempresarial de Mesoamerica y el Caribe (CMAC)  
Pedro Santacilia No 260, Col. Iztaccihualt  
03520 México, D.F.  
México  
Tel.: +52 55 5500 1484  
Fax: +52 55 5601 0903  
E-Mail: bhpelayo@prodigy.net.mx

Morocco / Maroc / Marruecos  
Mr Saad Lhoussaine  
Chef de la Division du Controle des Produits vegetaux et d’origin Vegetal  
Office National de Securite Sanitaire des Produits Alimentaires  
Avenue Haj Ahmed Cherkaoui – Aghdal  
Rabat  
Morocco  
Tel.: +212 5376 81351  
Fax: +212 5376 82049  
E-Mail: saad.lhoussaine@gmail.com  
Mr Mohamed Tannouli  
Chef de la Section Agricole  
Laboratoire officiel d’Analyses et de Recherches Chimiques  
25 rue Nichakra Rahal  
20110 Casablanca  
Morocco  
Tel.: +212 5223 02007  
Fax: +212 5223 01972  
E-Mail: tannouli1@yahoo.fr

Myanmar  
Dr Ohmar Soe Win  
Food Control Officer  
Food and Drug Administration  
Department of Health  
Ministry of Health  
Office No 47  
Nay Pyi Taw  
Myanmar  
Tel.: +95 67 431134  
Fax: +95 67 431134  
E-Mail: drmynymyint@gmail.com
NEPAL / NÉPAL
Mr Chandra Subba
Senior Food Research Officer
Department of Food Technology and Quality Control
Babarmahal
N/A Kathmandu
Nepal
Tel.: +977 1 4262 369
Fax: +977 1 4262 337
E-Mail: dgdftqc@mail.com.np

NETHERLANDS / PAYS BAS / PAÍSES BAJOS
Ms Letteke Boot
Policy Advisor Nutrition
Ministry of Health, Welfare and Sport
P.O.Box 20350
2500 EJ The Hague
Netherlands
Tel.: +31 (70) 3405447
Fax: +31 (70) 3407303
E-Mail: ca.boot@minvws.nl

NEW ZEALAND / NOUVELLE-ZÉLANDE / NUEVA ZELANDA
Ms Jenny Reid
Manager Food Safety
Ministry of Agriculture & Forestry – Food Safety
PO Box 2526
Pastoral House
Wellington 6011
New Zealand
Tel.: +64 (4) 894 2582
Fax: +64 (4) 894 2530
E-Mail: jenny.reid@maf.govt.nz

NICARAGUA
Mr Omega Rasolofomanana Aritosimba
Lic Tecnologia de Alimentos
Ministerio de la Salud
Complejo Nacional de Salud “Dra Concepción Palacios”
Managua
Nicaragua
Tel.: +505 2289 4700
Fax: +505 2289 4839
E-Mail: alimento@minsa.gob.ni

NIGERIA
Mr Julius Oreyemi Apanisile
Director
Federal Ministry of Trade and Investment
Abuja
Nigeria
Tel.: +234 8033 1242 56
E-Mail: mrapanisile@yahoo.com

Mrs. Jane Omojokun
Deputy Director (Regulatory Affairs)
National Agency for Food and Drug Administration and Control
Plot 3/5 Oshodi - Apapa Expressway, Lagos
Tel: +234 8033 3381 84
E-Mail: omojokun.j@nafdac.gov.ng

Mr Abdulsalam Ozigis
Assistant Director
National Agency for Food and Drug Administration and Control
Plot 2032 Olusegun Obasanjo way, Wuse, Zone 7
Abuja
Nigeria
Tel: +234 803 7024 035
E-Mail: ozigis.a@nafdac.gov.ng

Ms Olapeju Onadipe
Asst Regional Project Coordinator
CFC-WA, IITA, PMB 5320
Ibadan
Nigeria
Tel.: +234 8030 964195
E-Mail: onadipe@cgiar.org

Ms Svanhild Vaskinn
Senior Adviser
Norwegian Food Safety Authority
P.O. Box 383
N-2381 Brumunddal
Norway
Tel.: +47 (23) 21 68 00
Fax: +47 (23) 21 68 01
E-Mail: svvas@mattilsynet.no

Ms Ida Tidemann-Andersen
Adviser
Norwegian Food Safety Authority
P.O.Box 383
N-2381 Brumunddal
Norway
Tel.: +47 (23) 21 65 73
E-Mail: idtid@mattilsynet.no

Dr Linda Granlund
Research and Nutrition Manager
Mills DA
P.O.Box 4644 Sofienberg
N-0506 Oslo
Norway
Tel.: +47 9901 9418
E-Mail: linda.granlund@mills.no
OMAN / OMÁN
Mrs Nawal Al-Abri
Specialist on Specification of Food & Agriculture Products
Ministry of Commerce & Industry
Directorate General of Specification and Metrology
P.O.Box 550
100 Muscat
Sultanat of Oman
Tel.: +968 9558 4474
Fax: +968 2481 5992
E-Mail: dgs321@hotmail.com

Mr Eyad Attari
Regulatory Affairs Manager
Ministry of Commerce & Industry
Directorate General of Specification and Metrology
P.O.Box 550
100 Muscat
Sultanat of Oman
Tel.: +97/5560089/8
Fax: +97/48839880
E-Mail: guiogoz64@yahoo.com

PHILIPPINES / FILIPINAS
Mr Israel Dela Cruz
OIC Chief Senior Science Research Specialist
Bureau of Agriculture & Fisheries Product Standards
BPI Compound
Visayas Avenue, Diliman
1101 Quezon City
Philippines
Tel.: +63 (2) 455 2858
Fax: +63 (2) 455 2858
E-Mail: israel.dela_cruz@up.edu.ph

POLAND / POLOGNE / POLONIA
Mrs Magdalena Kowalska
Senior Specialist
Agricultural and Food Quality Inspection
30 Wspolna Str.
00930 Warsaw
Poland
Tel.: +48 2 2623 2904
Fax: +48 2 2623 2997
E-Mail: mkowalska@ijhars.gov.pl

Ms Marzena Chacinska
Director
Agricultural and Food Quality Inspection
30 Wspolna Str.
00930 Warsaw
Poland
Tel.: +48 2 2623 2902
Fax: +48 2 2623 2997
E-Mail: mchacinska@ijhars.gov.pl

Ms Malgorzata Klak
Expert
Agricultural and Food Quality Inspection
30 Wspolna Str.
00930 Warsaw
Poland
Tel.: +48 2 2623 2792
Fax: +48 2 2623 2997
E-Mail: mklak@ijhars.gov.pl

Prof Hanna Kunachowicz
Head of Department of Nutritive Value of Food
National Food and Nutrition Institute
Powsinska 61/63
02-903 Warsaw
Poland
Tel.: +48 22 550 9708
Fax: +48 22 842 1103
E-Mail: hkunachowicz@izz.waw.pl

Dr Katarzyna Stos
Head of Food Safety Department
National Food and Nutrition Institute
Powsinska 61/63
02-903 Warsaw
Poland
Tel.: +48 22 550 9781
Fax: +48 22 842 1103
E-Mail: kstos@izz.waw.pl

Mr Stephane Brion
Administrator
Council of the European Union
Rue de la Loi 175
1048 Brussels
Belgium
Tel.: +32 2 281 2142
Fax: +32 2 281 6168

QATAR
Mr Faisal Rashid Al-Bader
Department of Standards and Metrology
Ministry of Environment
P.O.Box 23277
Doha
Qatar
tel.: +974 4413 9432
Fax: +974 4413 9543
E-Mail: frbader@moe.gov.qa

REPUBLIC OF KOREA / RÉPUBLIQUE DE CORÉE / REPÚBLICA DE COREA
Dr Gui Im Moon
Deputy Director
Nutrition Policy Division,
Korea Food and Drug Administration
Osong Health Technology Administraion Complex,
187 Osongsangmyeong 2-ro,
Gangoe-myeon
Cheongwongun
363-951 Chungcheongbuk-do
Republic of Korea
Tel.: +82 43 719 2259
Fax: +82 43 719 2250
E-Mail: luna@korea.kr
Dr Chang Hee Lee  
Deputy Director Food Standard Division Korea Food and Drug Administration  
Osong Health Technology Administration Complex, 187 Osongsaengmyeong 2-ro, Gangseo-gu, Seoul 363-951 Korea  
Tel.: +82 43 719 2415  
Fax: +82 43 719 2400  
E-Mail: chlee65@korea.kr

Ms Youn Sung Oh  
Senior Researcher  
Nutrition Policy Division, Korea Food and Drug Administration  
Osong Health Technology Administration Complex, 187 Osongsaengmyeong 2-ro, Gangseo-gu, Seoul 363-951 Korea  
Tel.: +82 43 719 2272  
Fax: +82 43 719 2250  
E-Mail: youns1007@korea.kr

Dr Yang-Hee Cho  
Amway Korea  
4F Textile Center Bldg., #944-31, Daechi-dong Kangnam-gu, Seoul 135-713 Korea  
Tel.: +82 (2) 3468 6170  
Fax: +82 (2) 3468 6249  
E-Mail: yang-hee_cho@amway.com

Prof. Oran Kwon  
Associate Professor  
Ewha Womans’ Univ  
Dept of Nutritional Science & Food Management  
Human Ecology BLD #301  
11-1 Daehyun-dong, Seodaemoon-gu, Seoul 120-750 Korea  
Tel.: +82 (12) 395 8511  
Email: andiswangqaka@yahoo.de

Mr Jaewoo Park  
Assistant Director, DVM  
Livestock Products Standard Division  
Animal, Plant and Fisheries Quarantine and Inspection Agency  
75 Anyang-ro, Manom-gu, Anyang 430-757 Korea  
Tel.: +82 (31) 467 1986  
Fax: +82 (31) 467 1989  
E-Mail: jwparkdvm@korea.kr

Ms Yi Ling Tan  
Manager Regulatory Programmes  
Agri-Food & Veterinary Authority of Singapore  
5 Maxwell Road, #18-00 Tower Block, MND Complex 069110 Singapore  
Tel.: +65 6325 8556  
Fax: +65 6220 6068  
E-Mail: tan_yi_ling@ava.gov.sg

Mrs Andiswa Ngqaka  
Assistant Director Nutrition  
National Department of Health  
Directorate: Nutrition  
Private Bag X828  
Pretoria 0001  
South Africa  
Tel.: +27 (12) 395 8511  
Email: NgqakaA@health.gov.za  
andiswangqaka@yahoo.de
Prof Dr Hester (Este) H Vorster  
Centre of Excellence for Nutrition  
Faculty of Health Sciences  
North-West University  
Potchefstroom 2520  
South Africa  
Tel.: +27 (18) 299 4036  
E-Mail: este.vorster@nwu.ac.za

Ms Jane Badham  
Managing Director  
JB Consultancy  
P.O. Box 67396  
Bryanston 2021  
South Africa  
Tel.: +27 (11) 463 0679  
E-Mail: jane@jbconsultancy.co.za

Ms Almudena Rollán Gordo  
Spanish Food Safety and Nutrition Agency  
Ministry of Health, Social Policy and Equality  
Alcalá, no 56, Planta 4ª – Despacho-445  
28006 Madrid  
Spain  
Tel.: +34 (91) 3380 710  
Fax: +34 (91) 3380 169  
E-Mail: arollan@msps.es

Ms Amna Yousif Imameldeen Abakor  
Ministry of animal Resources and Fisheries  
Department of Animal Health and Epizootic Diseases  
Control - Food Safety Unit  
293 Khartoum  
Sudan  
Tel.: +249 1834 75995  
+249 912 854439  
Fax: +249 1834 7596  
E-Mail: amniamam21@hotmail.com

Mr Sirageldin Mustafa Mohamed Ahmed  
Environmental Health and Food Safety Adviser  
Federal Ministry of Health  
P.O.Box 8194 Code 12217  
Khartoum  
Sudan  
Tel.: +249 9121 35286  
Fax: +249 1837 80353  
E-Mail: sirageldinmust@yahoo.com

Mrs Omima Fadlallah  
Research Scientist  
Department of Food Chemistry and Nutrition  
Food Research Center  
Khartoum Bahrie/Shambatt  
Karthoum  
Sudan  
Tel.: +249 9123 76702  
Fax: +249 8531 1049  
E-Mail: ominafadlalla@gmail.com

Mrs Ibtehag Mahgoub Almobark Ibaid  
Health Inspector  
Federal Ministry of Health  
P.O. Box 313  
00249 Khartoum  
Sudan  
Tel.: +249 912468362  
Fax: +249 01551 45620  
E-Mail: ibtehagmoba@yahoo.com

Mrs Catharina Rosqvist  
Senior Administrative Officer  
Ministry for Rural Affairs  
Fredsgatan 8  
103 33 Stockholm  
Sweden  
Tel.: +46 8 405 3782  
Fax: +46 8 206496  
E-Mail: catharina.roqvist@rural.ministry.se

Ms Lena Björck  
Nutritionist  
National Food Agency  
Box 622  
SE-751 26 Uppsala  
Sweden  
Tel.: +46 (18) 7092 45651  
Fax: +46 (18) 105848  
E-Mail: codex@slv.se
Mrs Kristina Lagestrand Sjölin
Principal Administrative Officer
National Food Agency
Box 622
SE-751 26 Uppsala
Sweden
Tel.: +46 (18) 175500
Fax: +46 (18) 105848
E-Mail: codex@slv.se

SWITZERLAND/SUISSE/SUIZA
Mrs Elisabeth Nellen-Regli
Pharmacist
Federal Office of Public Health
Consumer Protection Directorate
Schwarzenburgstr. 165
CH-3003 Bern
Switzerland
Tel.: +41 (31) 322 9560
Fax: +41 (31) 322 9574
E-Mail: elisabeth.nellen@bag.admin.ch

Dr Dirk Cremer
Global Regulatory Affairs Manager
DSM Nutritional Products
P.O.Box 2676
CH-4002 Basel
Switzerland
Tel.: +41 618 158 109
Fax: +41 618 158 770
E-Mail: dirk.cremer@dsm.com

Mrs Marie-France Pajerey
CT-Regulatory and Scientific Affairs, Nestlé
1800 Vevey
Switzerland
Tel.: +41 21 924 6429
E-Mail: mariefrance.pajerey@nestle.com

Thailand/THAILANDE/TAILANDIA
Prof Kraisid Tontisirin
Senior Advisor
National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road, Lad Yao, Chatuchak
Bangkok 10900
Thailand
Tel.: +66 (2) 561 2277
Fax: +66 (2) 561 3357
E-Mail: kraisid.tontisirin@gmail.com

Mrs Jureerat Hokiarti
Senior Food and Drug Technical Officer
Food and Drug Administration
Ministry of Public Health
Tiwannond Road
11000 Nondhaburi
Thailand
Tel.: +66 (2) 590 7156
Fax: +66 (2) 591 5918460
E-Mail: jrhk2449@hotmail.co.th

Dr Hataya Kongchuntuk
Food Processing Industry Club
The Federation of Thai Industries
Queen Sirikit National Convention Center, Zone C
4th Floor
60 New Rachadapisek Rd. Klongtoey
10110 Bangkok
Thailand
Tel.: +66 (2) 740 3474
Fax: +66 (2) 740 3499
E-Mail: hataya.kongchuntuk@danone.com

Mr Pichet Itkor
Food Processing Industry Club
The Federation of Thai Industries
Queen Sirikit National Convention Center
Zone C 4th Floor
60 New Rachadapisek Rd. Klongtoey
10110 Bangkok
Thailand
Tel.: +66 (2) 725 1093
Fax: +66 (2) 725 1082
E-Mail: pichet.itkor@mjn.com

Mr Manat Larpphon
Senior Standard Officer
National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road, Lad Yao, Chatuchak
Bangkok 10900
Thailand
Tel.: +66 (2) 561 2277
Fax: +66 (2) 561 3357
E-Mail: manat@acfs.go.th

Ms Sanida Khoonpanich
Standard Officer
National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
50 Phaholyothin Road, Lad Yao, Chatuchak
10900 Bangkok
Thailand
Tel.: +66 (2) 561 2277 ext. 1445
Fax: +66 (2) 561 3357, +66 (2) 561 3373
E-Mail: sanida.sk@gmail.com

Togo
Dr Tchala Kazia
Chef Division Nutrition, Technologie Alimentaire et Qualité des produits
Institut Togolais de Recherche Agronomique, Ministère de l’Agriculture
POBox: 1163-Lomé-TOGO
Tél: +228 90023325/ +228 22254118
Fax: +228 2225 1559
E-Mail: kaziatchala@yahoo.fr / itra@cafe.tg
**TURKEY / TURQUIE / TURQUÍA**

Ms Ozlem Eralp  
Ministry of Food, Agriculture and Livestock  
General Directorate of Food and Control  
Eskişehir Yolu 9.kg Lodumlu  
06550 Ankara  
Tel.: +90 312 2587 756  
Fax: +90 312 2587 760  
E-Mail: ozlem.eralp@tarim.gov.tr

Mr Dursun Kodaz  
Ministry of Food, Agriculture and Livestock  
General Directorate of Food and Control  
Eskişehir Yolu 9.kg Lodumlu  
06550 Ankara  
Turkey  
Tel.: +90 3 1225 8775  
Fax: +90 3 1225 87760  
E-Mail: dursun.kodaz@tarim.gov.tr

Ms Sema Toraman  
Technical Regulatory Coordinator  
Access Business Group  
Amway Turkey  
Amway Türkiya Ltd.  
Şair Eşref Bulvari No 6 Kat: 7 D: 4-9 Çankaya İzmir  
35530 Konak  
Turkey  
Tel.: +90 533 3710 049  
Fax. +90 232 4554 455  
E-Mail: sema_toraman@amway.com

**UNITED KINGDOM / ROYAUME-UNI / REINO UNIDO**

Dr Sheela Reddy  
Head of Maternal and Child Nutrition and Diabetic Foods  
Nutrition Science and Delivery  
Health Improvement Directorate  
Department of Health  
133-155 Waterloo Road  
London SE 1 8UG  
United Kingdom  
Tel.: +44 20 7972 1365  
E-Mail: sheela.reddy@dh.gsi.gov.uk

**UNITED STATES OF AMERICA / ÉTATS-Unis d’Amérique / ESTADOS Unidos de AMÉRICA**

Dr Barbara O. Schneeman  
Director, Office of Nutrition  
Labeling and Dietary Supplements  
Center for Food Safety & Applied Nutrition  
U.S. Food and Drug Administration (HFS-800)  
5100 Paint Branch Parkway  
College Park, MD 20740  
USA  
Tel.: +1 (240) 402 2373  
Fax: +1 (301) 436 26369  
E-Mail: barbara.schneeman@fda.hhs.gov

Dr Allison A. Yates  
Associate Director  
Beltsville Area  
Agricultural Research Service  
U.S. Department of Agriculture  
10300 Baltimore Avenue  
Bldg 003, Rm. 223, BARC-West  
Beltsville, MD 20705  
USA  
Tel.: +1 (301) 504-5193  
Fax: +1 (301) 504-5863  
E-Mail: allison.yates@ars.usda.gov

Mr Paulo Almeida  
Associate Manager  
U.S. Codex Office  
Food Safety and Inspection Service  
U.S. Department of Agriculture  
1400 Independence Avenue, S.W.  
Washington, DC 20250  
USA  
Tel.: +1 (202) 205 0574  
E-Mail: paulo.almeida@fsis.usda.gov

Dr Sue A. Anderson  
Team Leader  
Regulations and Review Team  
Office of Nutrition, Labeling and Dietary Supplements  
Center for Food Safety & Applied Nutrition  
Food and Drug Administration (HFS-850)  
5100 Paint Branch Parkway  
College Park, MD 20740  
USA  
Tel.: +1 240-402-1453  
Fax: +1 240-402-2636  
E-Mail: sue.anderson@fda.hhs.gov

Ms Judy Canahuati  
Maternal Child Health, Nutrition and HIV Advisor  
Office of Food for Peace  
U.S. Agency for International Development  
Room #7.06.100 RRB  
1300 Pennsylvania Avenue, NW  
Washington, CD 20523  
Tel.: +1 (202) 712 5737  
Fax: +1 (202) 216-3039  
E-Mail: jcanahuati@usaid.gov
Ms Nancy T. Crane
Expert Regulatory Review Scientist
Office of Nutrition, Labeling and Dietary Supplements
Center for Food Safety & Applied Nutrition
Food and Drug Administration (HFS-830)
5100 Paint Branch Parkway
College Park, MD 20740
USA
Tel.: +1 (240) 402 1450
Fax: +1(240) 402 2636
E-Mail: nancy.crane@fda.hhs.gov

Dr Julie Moss
Deputy Director, International Affairs Staff
Center for Food Safety and Applied Nutrition
Food and Drug Administration
5100 Paint Branch Parkway (HFS-550)
20740 College Park
USA
Tel.: +1 240 402 2031
Fax: +1 301 436 2618
E-Mail: julie.moss@fda.hhs.gov

Non-Government Advisors
Dr. Sukh D. Bassi
Vice President, Scientific Affairs
Chief Science Officer
MGP Ingredients, Inc.
P.O.Box 130
Atchison, Kansas 66002
USA
Tel.: +1 (913) 488 7409
Fax: +1 (913) 360-5746
E-Mail: sukh.bassi@mgpingredients.com

Dr Lisa Craig
Director, Regulatory Affairs
Abbott Nutrition
Dept. 104070, RP3-2,
625 Cleveland Avenue
Columbus, Ohio 43215
USA
Tel.: +1 (614) 624 3696
Fax: +1 (614) 727 3696
E-Mail: lisa.craig@abbott.com

Mr Robert Earl
Nutrition and Health Policy Director
Global Scientific and Regulatory Affairs
The Coca-Cola Company
P.O. Box 1734
Atlanta, GA 30301
Tel.: +1 (404) 676 2538
Fax: +1 (404) 598 2538
E-Mail: robertearl@coca-cola.com

Dr Mary H. Hager
Principal, Hager and Associates
12 Kings Ridge Road
Randolph, NJ 07869
USA
Tel.: +1 (973) 252 9924
E-Mail: hagermmh@aol.com

Dr William C. MacLean, Jr.
Consultant
The Ohio State University
1800 Upper Chelsea Road
Columbus, Ohio 43212
USA
Tel.: +1 (614) 486 6170
E-Mail: william.macleann@earthlink.net

Ms Mardi K. Mountford
Executive Vice President
International Formula Council
1100 Johnson Ferry Road, Suite 300
Atlanta, Georgia 30342
USA
Tel.: +1 (404) 252 3663
Fax: +1 (404) 252 0774
E-Mail: mmountford@kellencompany.com

ZIMBABWE
Mrs Ancikaria Chigumira
Deputy Director Nutrition Services
Ministry of Health and Child Welfare
P.O.Box CY1122 Couseway
Harare
Zimbabwe
Tel.: +263 (4) 792454
E-Mail: anci53@gmail.com

INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS
AESGP – ASSOCIATION OF THE EUROPEAN SELF-MEDICATION INDUSTRY
Dr Rose Schraitle
Drug Regulatory Affairs Manager
AESGP
7, Avenue de Tervuren
B-1040 Brussels
Belgium
Tel.: +32 2 735 5130
Fax: +32 2 735 5222
E-Mail: info@aesgp.be

CCC – CALORIE CONTROL COUNCIL
Mrs Victoria Betteridge
Vice President and Director, Regulatory and Governmental Affairs
Tate & Lyle Plc
Lower Thames Street
Sugar Quay
EC3R 6DQ London
United Kingdom
Tel.: +44 207 626 6525
Fax: +44 207 977 6571
E-Mail: victoria.betteridge@tateandlyle.com
Mr Wim Caers
Manager Regulatory Affairs
Beneo
Aandorenstraat 1
3300 Tienen
Belgium
Tel.: +32 16 801483
Fax: +32 16 801308
E-Mail: wim.caers@beneo.com

CEFS – COMITÉ EUROPÉEN DES FABRICANTS DE SUCRE
Ms Emilie Leibovitch
Scientific & Regulatory Affairs Advisor
CEFS- Comité Européen des Fabricants de Sucre
Avenue de Tervuren 182
1150 Brussels
Belgium
Tel.: +32 (2) 762 0760
Fax: +32 (2) 771 0026
E-Mail: emilie.leibovitch@cefs.org

CONSUMERS INTERNATIONAL
Mrs Ursula Trüeb
Consumer Representative
Consumers International
Bötzli 1
4312 Magden
Switzerland
Tel.: +41 (0) 61 841 1256
Fax: +41 (0) 61 841 1256
E-Mail: ursula.trueb@vtxmail.ch

CRN - COUNCIL FOR RESPONSIBLE NUTRITION
Dr John Hathcock
Senior Vice President
Scientific and International Affairs
CRN
1828 L St, NW Suite 510
20036 Washington, DC
USA
Tel.: +1 202 204 7662
Fax: +1 202 204 7701
E-Mail: jhathcock@crnusa.org

Mr Harvey Kamil
Vice Chairman
NBTY, Inc.
2100 Smithtown Avenue
11779 Fonkonoma, New York
USA
Tel.: +1 631 200 2020
Fax: +1 631 567 7148
E-Mail: heatherkuhn@nbt.com

Mr Mark Ledoux
Chairman and CEO
Natural Alternatives International
92078 San Marcos, California
USA
Tel.: +1 760 736 7742
Fax: +1 760 591 9637
E-Mail: mledoux@nai-online.com

Mr Mark Mansour
Akin Gump Strauss Hauer & Feld
1333 New Hampshire Ave N.W.
20036 Washington D.C.
USA
Tel: +1 202 887 4105
Fax: +1 202 887 4288
E-Mail: mmansour@akingump.com

Mr John Venardos
Senior Vice President
Herbalife Ltd.
990 West 190th St, Suite 650
90502 Torrance, CA
USA
Tel.: +1 310 851 2346
Fax: +1 310 767 3316
E-Mail: johnv@herbalife.com

EFFCA – EUROPEAN FOOD AND FEED CULTURES
ASSOCIATION
Ms Youri Skaskevitch
Secretary General
EFFCA
Sint Michielslaan 77-79
1060 Brussels
Belgium
Tel.: +32 2 7402 962
Fax: +32 2 7325 102
E-Mail: effca@agep.eu

EFLA/AEDA – EUROPEAN FOOD AND LAW ASSOCIATION
Ms Rola Arab
Member
EFLA
50, Rue de l’Association
1000 Brussels
Belgium
Tel.: +32 (2) 209 1142
Fax: +32 (2) 219 7342
E-Mail: secretariat@efla-aeda.org

EHPM - EUROPEAN FEDERATION OF ASSOCIATIONS OF
HEALTH PRODUCT MANUFACTURERS
Dr Keith Legge
EHPM
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 2 209 1145
Fax: +32 2 223 3104
E-Mail: secretariat@ehpm.be

ESPGHAN - EUROPEAN SOCIETY FOR PAEDIATRIC
GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION
Dr Walter Mihatsch
ESPGHAN
Auf dem Katzenkopf 26
74523 Schwäbisch Hall
Tel.: +49 (791) 753 4509
Fax: +49 (791) 753 4914
E-Mail: familie.mihatsch@web.de
Prof. Dominique Turck
Professor of Pediatrics
ESPGHAN
Département de Pédiatrie
Hôpital Jeanne de Flandre
59037 Lille
France
Tel.: +33 (3) 2044 6885
fax: +33 (3) 2044 4634
E-Mail: dominique.turck@chru-lille.fr

EU SALT – EUROPEAN SALT PRODUCERS ASSOCIATION
Ms Sandrine Lauret
Regulatory Affairs Manager
Eu Salt
Avenue de l’Yser 4
1040 Brussels
Belgium
Tel.: +32 (2) 737 1090
Fax: +32 (2) 737 1099
E-Mail: sandrine.lauret@eusalt.com

FOODDRINKEUROPE
Mr Dirk Jacobs
Manager Consumer Information, Diet and Health
Avenue des Arts 43
1040 Brussels
Belgium
Tel.: +32 2 514 11 11
Fax: +32 2 508 2021
E-Mail: d.jacobs@fooddrinkeurope.eu

GAIN – GLOBAL ALLIANCE FOR IMPROVED NUTRITION
Dr Jonathan Siekmann
Technical Advisor
GAIN
Rue de Vermont 37-39
P.O.Box 55
CH-1211 Geneva 20
Switzerland
Tel.: +41 (22) 749 1850
Fax: +41 (22) 749 1851
E-Mail: j.siekmann@gainhealth.org

IACFO – INTERNATIONAL ASSOCIATION OF CONSUMER FOOD ORGANISATIONS
Mrs Patti Randall
Policy Director
Baby Milk Action / IBFAN
34 Trumpington St.
Cambridge CB2 1QY
United Kingdom
Tel.: +44 01223 464420
Fax. +44 01223 464417
E-Mail: prundall@babymilkaction.org

IADSA - INTERNATIONAL ALLIANCE OF DIETARY/FOOD SUPPLEMENT ASSOCIATIONS
Mr David Pineda Ereño
Director, Regulatory Affairs
International Alliance of Dietary/Food Supplement Associations (IADSA)
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (2) 209 1155
Fax: +32 (2) 219 7342
E-Mail: davidpineda@iadsa.be

Ms Cashmer Dirampaten
Manager Regulatory Affairs
International Alliance of Dietary/Food Supplement Associations (IADSA)
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (2) 209 1155
Fax: +32 (2) 223 3064
E-Mail: cashmerdirampaten@iadsa.be

Mr Simon Pettman
Secretariat
International Alliance of Dietary/Food Supplement Associations (IADSA)
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (2) 209 1155
Fax: +32 (2) 219 7342
E-Mail: carissachin@iadsa.be

Mr Nico Raczek
IADSA Secretariat
International Alliance of Dietary/Food Supplement Associations (IADSA)
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (2) 209 1155
Fax: +32 (2) 223 3064
E-Mail: secretariat@iadsa.be

Prof David Richardson
Scientific Advisor
International Alliance of Dietary/Food Supplement Associations (IADSA)
50, Rue de l’Association
1000 Brussels
Belgium
Tel.: +32 (2) 209 1155
Fax: +32 (2) 223 3064
E-Mail: secretariat@iadsa.be
Mrs Michelle Stout
IADSA Secretariat
International Alliance of Dietary/Food Supplement
Associations (IADSA)
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (2) 209 1155
Fax: +32 (2) 223 3064
E-Mail: secretariat@iadsa.be

IBFAN - INTERNATIONAL BABY FOOD ACTION NETWORK
Ms Elisabeth Sterken
Director
INFACT Canada/IBFAN North America
520 Colborne Street
London ON, N6G 2T5
Canada
Tel.: +1 (416) 595 9819
Fax: +1 (416) 591 9355
E-Mail: esterken@infactcanada.ca
Mrs Joyce Chanetsa
IBFAN Africa
Dhlamubeka Building cnr
P.O.Box 781
H100 Msabane
Swaziland
Tel.: +268 2404 5006
Fax: +268 2404 0546
E-Mail: ibfan.jchanetsa@realnet.co.sz

ICBA - INTERNATIONAL COUNCIL OF BEVERAGES ASSOCIATIONS
Mrs Helen Falco
Advisor
International Council of Beverages Associations
c/o American Beverage Association
1101 16th Street NW
20036 Washington, D.C.
USA
Tel.: +1 (202) 263 6790
Fax: +1 (202) 263 6790
E-Mail: hfalco@coca-cola.com
Mr Hidekazu Hosono
Technical Advisor
Japan Soft Drinks Association
3-3-3 Nihonbashii-Muromachi Chuo Ku 103-0022 Tokyo
Japan
Tel.: +81 (3) 3270 7300
Fax: +81 (3) 3270 7306
E-Mail: hidekazu_hosono@suntory.co.jp
Mr Hiromi Ohta
Technical Advisor
Japan Soft Drinks Association
3-3-3 Nihonbashii-Muromachi Chuo Ku 103-0022 Tokyo
Japan
Tel.: +81 (3) 3270 7300
Fax: +81 (3) 3270 7306
E-Mail: hiromi_ohta@suntory.co.jp

ICGA – INTERNATIONAL CHEWING GUM ASSOCIATION
Mr Christophe Lepretrière
Manager, Regulatory & Scientific Affairs
International Chewing Gum Association
c/o Keller and Heckman LLP
1001 G Street NW, Suite 500 West
20001 Washington D.C.
USA
Tel.: +32 2 645 5060
Fax: +32 2 645 5050
E-Mail: icga@gumassociation.org

ICGMA – INTERNATIONAL COUNCIL OF GROCERY MANUFACTURERS ASSOCIATIONS
Ms Regina Hildwine
Senior Director Science Policy, Labeling & Standards
Grocery Manufacturers Association
1350 I Street NW
20005 Washington, DC
USA
Tel.: +1 202 639 5926
E-Mail: rhildwine@gmaonline.org
Ms Phyllis Tanaka
Vice-President Scientific & Regulatory Affairs
Food and Consumer Products of Canada
100 Sheppard Avenue E, Suite 600
M2N 6N5 Toronto, Ontario
Canada
Tel.: +1 416 510 8024
Fax: +1 416 510 8043
E-Mail: phyllist@fcpc.ca

IDACE – EUROPEAN DIETETIC FOOD INDUSTRY ASSOCIATION
Mrs Marie Odile Gailing
Member
IDACE
50 Rue de l’Association
1000 Brussels
Belgium
Tel.: +32 (2) 209 1142
Fax: +32 (2) 219 7342
E-Mail: secretariat@idace.eu
Mrs Isabelle Caelen  
Member  
IDACE  
50 Rue de l’Association  
1000 Brussels  
Belgium  
Tel.: +32 (2) 209 1141  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@idace.eu

Mr Kevin O’Brien  
Member  
IDACE  
50 Rue de l’Association  
1000 Brussels  
Belgium  
Tel.: +32 (2) 209 1141  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@idace.eu

IDF – INTERNATIONAL DAIRY FEDERATION  
Ms Isabelle Neiderer  
Director of Nutrition  
Dairy Farmers of Canada  
1801 McGill College Avenue, Suite 700  
H3E 2N4 Montreal  
Canada  
Tel.: +1 (514) 284 1092  
Fax: +1 (514) 284 0449  
E-Mail: isabelle.neiderer@dfc-plc.ca

Mr Joerg Seifert  
Technical Director  
IDF  
70, Boulevard Auguste Reyers  
1030 Brussels  
Belgium  
Tel.: +32 2 3256 743  
Fax: +32 2 7330 413  
E-Mail: jseifert@fil-idf.org

Dr Yvette Soustre  
Nutrition Director  
CNIEL  
42, rue de Chateaudun  
75009 Paris  
France  
Tel.: +33 1 4970 7224  
E-Mail: ysoustre@cniel.com

Dr Isabelle Subirade  
Regulatory and External Affairs  
Danone Research  
R.D. 128  
91767 Palaiseau  
France  
Tel.: +33 1 6935 7475  
Fax: +33 1 6935 7683  
E-Mail: isabelle.subirade@danone.com

IFAC – INTERNATIONAL FOOD ADDITIVES COUNCIL  
Dr Pierre Kirsch  
Scientific & Regulatory Advisor to Lubrizol  
IFAC  
Avenue du Pesage 18/9  
1050 Brussels  
Belgium  
Tel.: +32 4739 7402  
E-Mail: kirsch@skynet.be

IFMA – INTERNATIONAL FEDERATION OF MARGARINE ASSOCIATIONS  
Dr Nathalie Henin  
Scientific & Regulatory Affairs Director  
BUNGE Europe, Middle-East and Africa  
13, Route de Florissant  
1206 Geneva  
Switzerland  
Tel.: +41 796 323 687  
Fax: +41 22 5929 106  
E-Mail: nathalie.henin@bunge.com

IFT – INSTITUTE OF FOOD TECHNOLOGISTS  
Prof Rosemary Walzem, RD  
Professor of Nutrition  
Texas A&M University  
Kleberg Center RM 242  
77843-2472 College Station, TX  
USA  
Tel.: +1 (979) 845 7537  
Fax: +1 (979) 845 1921  
E-Mail: rwalzem@poultry.tamu.edu

Ms Gloria Brooks-Ray  
Advisor, Codex and International Regulatory Affairs  
Exponent, Inc.  
Center for Chemical Regulation and Food Safety  
P.O.Box 97  
07046 Mountain Lakes NJ  
USA  
Tel.: +1 (973) 334 4652  
E-Mail: gbrooksray@exponent.com

Dr Rodney J.H. Gray  
Vice President Regulatory Affairs  
DSM Nutritional Products  
6480 Dobbin Road  
21045 Columbia, Maryland  
USA  
Tel.: +1 (410) 740 0081  
Fax: +1 (410) 470 2985  
E-Mail: rodney.gray@dsm.com
IFU – INTERNATIONAL FEDERATION OF FRUIT JUICE PRODUCERS
Mr Paul Zwiker
Dipl. Lm. Ing. ETH
IFU
Postfach 45
CH-9220 Bischofszell
Switzerland
Tel.: +41 71 420 0644
Fax: +41 71 420 0643
E-Mail: zwiker@bluewin.ch

IICA – INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE
Dr Marcos Sanchez-Plata
Food Safety Specialist
IICA
5757 Blue Lagoon Drive, Suite 200
33126 Miami, Florida
USA
Tel.: +1 305 2609 010
Fax: +1 305 2609 020
E-Mail: marcos.sanchez@iica.int

ILCA - INTERNATIONAL LACTATION CONSULTANT ASSOCIATION
Mrs Maryse Arendt
Director
Initiativ Liewensufank
20 Rue de Contern
5655 Itzig
Luxemburg
Tel.: +352 3605 9713
E-Mail: marysearendt@liewensufank.lu

ILSI – INTERNATIONAL LIFE SCIENCES INSTITUTE
Mr Kazuo Sueki
Director, Scientific Information
ILSI Japan
Kojimachi R, K Bldg. 2-6-7
Kojimachi, Chiyoda-ku
102-0083 Tokyo
Japan
Tel.: +81 (3) 5215 3535
Fax: +81 (3) 5215 3537
E-Mail: kazuo.sueki@aifn.org

Mr Kazuyoshi Namba
Nutritional Science Institute
Morinaga Milk Industry Co., Ltd.
5-1-83, Higashihara
Zama
Kanagawa 252-8583
Japan
Tel.: +81 (46) 252 3057
Fax: +81 (46) 252 3057
E-Mail: k_namba@hotmail.com

Dr Eiryu Sanatani
General Manager
Quality Assurance Development Department
Quality Assurance Division
Suntory Business Expert Limited
2-3-3 Daiba, Minato-ku
Tokyo
Japan
Tel.: +81 3 5579 1521
Fax: +81 3 5579 1725
E-Mail: eiryu_sanatani@suntory.co.jp

Dr Hiroshi Tsuchita
Food Technology Research Institute
Meiji Dairies Corporation
540 Natuda, Odawara
Kanagawa 250-0862
Japan
Tel.: +81 465 373661
Fax: +81 465 373713
E-Mail: hiroshi_tsuchita@meiji.com

IPA – INTERNATIONAL PROBIOTICS ASSOCIATION
Ms Carine Lambert, expert.
IPA
Zentralstrasse 64
CH-8003 Zurich
Switzerland
Tel.: +41 22 210 2030
E-Mail: carine.lambert@ylifa.org

ISDI – INTERNATIONAL SPECIAL DIETARY FOODS INDUSTRIES
Dr Irena Costea
Member
ISDI
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (**) 209 1143
Fax: +32 (2) 219 7342
E-Mail: secretariat@isdi.org

Ms Margaret Creedon
Member
ISDI
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (**) 209 1143
Fax: +32 (2) 219 7342
E-Mail: secretariat@isdi.org

Dr Heather Ferguson
Member
ISDI
Rue de l’Association 50
1000 Brussels
Belgium
Tel.: +32 (**) 209 1143
Fax: +32 (2) 219 7342
E-Mail: secretariat@isdi.org
Mrs Nynke Keestra  
Member  
ISDI  
Rue de l’Association 50  
1000 Brussels  
Belgium  
Tel.: +32 (2) 209 1143  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@isdi.org

Mr Xavier Lavigne  
Secretary General  
ISDI  
Rue de l’Association 50  
1000 Brussels  
Belgium  
Tel.: +32 (2) 209 1143  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@isdi.org

Dr Hugh Lippman  
ISDI  
Rue de l’Association 50  
1000 Brussels  
Belgium  
Tel.: +32 (2) 81241 98650  
E-Mail: hugh.lippman@mijn.com

Dr Peter van Dael  
Member  
ISDI  
Rue de l’Association 50  
1000 Brussels  
Belgium  
Tel.: +32 (“) 209 1143  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@isdi.org

Ms Yedda Chou  
Member  
ISDI  
Rue de l’Association 50  
1000 Brussels  
Belgium  
Tel.: +32 (“) 209 1143  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@isdi.org

Mrs Ayu Puspitalena Rtr.  
Member  
ISDI  
Rue de l’Association 50  
1000 Brussels  
Belgium  
Tel.: +32 (“) 209 1143  
Fax: +32 (2) 219 7342  
E-Mail: secretariat@isdi.org

ISO – INTERNATIONAL ORGANIZATION FOR STANDARDIZATION  
Ms Sandrine Espeilieac  
Standardization Project Manager  
AFNOR  
11 rue Francis de Pressensé  
93571 La Plaine Saint Denis Cedex  
France  
Tel.: +33 1 4162 8602  
E-Mail: sandrine.espeillac@afnor.org

NHF – NATIONAL HEALTH FOUNDATION  
Dr Scott C. Tips  
General Legal Counsel  
National Health Federation  
PO Box 688  
Monrovia, California 91017  
USA  
Tel.: +1 (626) 357 2182  
Fax: +1 (626) 303 0642  
E-Mail: scott@rivieramail.com

Ms Caroline Knight  
National Health Federation  
P.O.Box 688  
91017 Monrovia  
USA  
Tel.: +44 7427 821 940  
Fax: +1 626 303 0642  
E-Mail: uk-nhf@thenhf.com

Mrs Petra Weiss  
National Health Federation  
PO Box 688  
Monrovia, California 91017  
USA  
Tel.: +1 (626) 357 2181  
Fax: +1 (626) 303 0642

Mrs Gudrun Weiss  
National Health Federation  
PO Box 688  
Monrovia, California 91017  
USA  
Tel.: +1 (626) 357 2182  
Fax: +1 (626) 303 0642

OFCA – ORGANISATION DES FABRICANTS DE PRODUITS CELLULOSIQUES ALIMENTAIRES  
Dr Huub Scheres  
Director External Affairs  
Danisco/DuPont  
Archimedesweg 30  
2333 CN Leiden  
Netherlands  
Tel.: +31 7156 86168  
Fax: +31 7156 86169  
E-Mail: huub.scheres@danisco.com
WSRO - WORLD SUGAR RESEARCH ORGANIZATION
Dr Richard Cottrell
Director General
WSRO
70 Collingwood House
Dolphin Square
SWIV 3LX London
United Kingdom
Tel.: +44 (20) 7821 6800
Fax: +44 (20) 7834 4137
E-Mail: rcottrell@wsro.org

Dr. Charles Baker
Chief Scientific Officer
The Sugar Association Inc.
1300 L Street, NW Suite 101
20005-4263 Washington. DC
USA
Tel: +1 202 785 1122 x120
Fax: +1 202 785 5019
E-Mail: cbaker@sugar.org

Dr. Anna Wittekind
Assistant Director
WSRO
70 Collingwood House
Dolphin Square
SWIV 3LX London
United Kingdom
Tel.: +44 20 7821 6800
Fax: +44 20 7843 4137
E-Mail: awittekind@wsro.org

INTERNATIONAL GOVERNMENTAL ORGANIZATION
WHO - WORLD HEALTH ORGANIZATION
Dr Chizuru Nishida
Coordinator
Nutrition Policy and Scientific Advice
Department of Nutrition for Health and Development
WHO
20. Avenue Appia
1211 Geneva 27
Switzerland
Tel.: +41 (22) 791 3317/3455
Fax: +41 (22) 791 4156
E-Mail: nishidac@who.int

Dr. Nancy Aburto
Scientist
Nutrition Policy and Scientific Advice
Departement of Nutrition for Health and Development
WHO
20. Avenue Appia
1211 Geneva 27
Switzerland
Tel.: +41 22 791 3229
E-Mail: aburton@who.int

FAO – FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Dr Janice Albert
Nutrition Officer
Assessment and Nutrient Requirements Group
Nutrition and Consumer Protection Division
FAO
Viale delle Terme di Caracalla
153 Roma
Italy
Tel.: +39 (6) 570 53552
E-Mail: janice.albert@fao.org

GERMAN SECRETARIAT
Mr Georg Müller
Federal Ministry of Food, Agriculture and Consumer Protection
Rochusstraße 1
53123 Bonn, Germany
Tel.: +49 (228) 99 529 33 87
Fax: +49 (228) 99 529 49 65
E-Mail: ccnfsdu@bmelv.bund.de

Mrs Christine Focke
Federal Ministry of Food, Agriculture and Consumer Protection
Rochusstraße 1
53123 Bonn, Germany
Fax: +49 (228) 99 529 49 65
E-Mail: ccnfsdu@bmelv.bund.de

Ms Therese Margareta Kaulen
Federal Ministry of Food, Agriculture and Consumer Protection
Rochusstraße 1
53123 Bonn, Germany
Fax: +49 (228) 99 529 49 65
E-Mail: ccnfsdu@bmelv.bund.de
CODEX SECRETARIAT
Ms Selma Doyran
Codex Secretary
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel.: +39 (6) 570 55629
Fax: +39 (6) 570 54593
E-Mail: selma.doyran@fao.org

Dr Hidetaka Kobayashi
Food Standards Officer
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel.: +39 348 285 8891
Fax: +39 6 570 54593
E-Mail: hidetaka.kobayashi@fao.org
FOOD ADDITIVES PROVISIONS FOR INFANT FORMULAE AND FORMULAS FOR SPECIAL MEDICAL PURPOSES

<table>
<thead>
<tr>
<th>Additives considered as physiological body constituents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.3 Acidity Regulators</strong></td>
</tr>
<tr>
<td><strong>E 339i, ii and iii</strong></td>
</tr>
<tr>
<td>Sodium phosphates</td>
</tr>
<tr>
<td>0.1 g expressed as $P_2O_5$ singly or in combination and within the limits for sodium, potassium and phosphorus in section 3.1.3 (e) in all types of infant formula</td>
</tr>
<tr>
<td><strong>E 340i, ii and iii</strong></td>
</tr>
<tr>
<td>Potassium phosphates</td>
</tr>
<tr>
<td>0.1 g expressed as $P_2O_5$ singly or in combination and within the limits for sodium, potassium and phosphorus in section 3.1.3 (e) in all types of infant formula</td>
</tr>
</tbody>
</table>
PROPOSED DRAFT NUTRIENT REFERENCE VALUES FOR NUTRIENTS ASSOCIATED WITH RISK OF DIET-RELATED NONCOMMUNICABLE DISEASES FOR GENERAL POPULATION (NRVS-NCD)

(at Step 5/8 of the procedure)

For inclusion in the Guidelines on Nutrition Labelling

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>NRV-NCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>saturated fatty acids</td>
<td>20 g</td>
</tr>
<tr>
<td>sodium</td>
<td>2000 mg</td>
</tr>
</tbody>
</table>
GUIDELINES ON FORMULATED COMPLEMENTARY FOODS FOR OLDER INFANTS AND YOUNG CHILDREN

(Step 5 of the procedure)

1. PURPOSE
To provide guidance on nutritional and technical aspects of the production of Formulated Complementary Foods for older infants and young children as defined in Section 3.1, including:

i. Formulation of such foods, based on the nutritional requirements of older infants and young children;

ii. Processing techniques;

iii. Hygienic requirements;

iv. Provisions for packaging;


2. SCOPE
The provisions of these Guidelines apply to Formulated Complementary Foods for Older Infants and Young Children as defined in Section 3.1 below and include but are not limited to porridges containing cereals, ready-to-use products and food-based home fortificants. Micronutrient supplements, processed cereal based foods, and canned baby foods are not covered by these Guidelines.

These Guidelines should be used in accordance with the Global Strategy for Infants and Young Child Feeding and World Health Assembly Resolution WHA54.2 (2001).

3. DESCRIPTION

3.1 Formulated Complementary Foods for Older Infants and Young Children means foods that are suitable for use during the complementary feeding period. These foods are specifically formulated with appropriate nutritional quality to provide additional energy and nutrients to complement the family foods derived from the local diet by providing those nutrients which are either lacking or are present in insufficient quantities.

3.2 Older infants means persons from the age of 6 months and not more than 12 months of age.

3.3 Young children means persons from the age of more than 12 months up to the age of three years (36 months).

3.4 Complementary feeding period means the period when older infants and young children transition from exclusive feeding of breastmilk and/or breastmilk substitutes to eating the family diet.

1 Codex Standard for Processed Cereal-Based Foods for Infants and Young Children (CODEX STAN 74-1981, rev. 1-2006)
3 According to the WHO, 2002, Complementary Feeding, Report of the Global Consultation appropriate complementary feedings should start from the age of six months with continued breast feeding up to two years or beyond; refer also to WHO 2003 Guiding Principles for Complementary feeding of the breastfed child, WHO 2005 Guiding principles for feeding non-breastfed children 6-24 months of age.
4. **SUITABLE RAW MATERIALS AND INGREDIENTS**

4.1 **Basic Raw Materials and Ingredients**

The following raw materials, most of which are locally available, are suitable ingredients for the production of Formulated Complementary Foods for older infants and young children under the specified conditions given below:

4.1.1 **Cereals**

4.1.1.1 All milled cereals suitable for human consumption may be used provided that they are processed in such a way as to reduce the fibre content, when necessary, and to decrease and, if possible, to eliminate anti-nutrients such as phytates, tannins or other phenolic materials, lectins, trypsin, and chymotrypsin inhibitors which can lower the protein quality and digestibility, amino acid bioavailability and mineral absorption. The use of appropriate enzymes may be considered to decrease fibre and anti-nutrients, if needed.

4.1.1.2 Besides carbohydrates (mainly consisting of starch) cereals contain a significant quantity of protein (8-12%) but are limiting in the amino acid lysine. Combining cereals with legumes and/or pulses, which are higher in lysine, can compensate for the limiting level in cereals.

4.1.2 **Legumes and Pulses**

4.1.2.1 Legumes and pulses, such as chick peas, lentils, peas, cowpeas, mungo beans, green gram, kidney beans and soya, containing at least 20% protein on a dry weight basis.

4.1.2.2 On the whole, legumes and pulses are deficient in L-methionine. Depending on the nature of the other ingredients in the formulation, the addition of L-methionine may be desirable in order to improve the nutritional value of the product.

4.1.2.3 Legumes and pulses must be appropriately processed to reduce, as much as possible, the anti-nutritional factors normally present, such as phytates, lectins (haemagglutinins), trypsin and chymotrypsin inhibitors. When phytoestrogen containing legumes and pulses such as soya are added as an ingredient, products with low levels of phytoestrogens should be used.

- Lectins can be reduced by moist heat treatment;
- Trypsin inhibitor activity may be reduced to acceptable levels by heating to high temperatures or by prolonged boiling.
- Phytate can be reduced enzymatically or by soaking or fermentation.
- Phytoestrogens can be reduced by fermentation.

4.1.2.4 Field beans or faba beans (*Vicia faba* L.) should not be used in the formulation of complementary food for older infants and young children because of the danger of favism. Heat treatment does not completely inactivate the toxic components (vicine and co-vicine).

4.1.3 **Oil Seed Flours and Oil Seed Protein Products**

4.1.3.1 Flours, protein concentrates and protein isolates of oil seeds are acceptable if manufactured to appropriate specifications\(^4\)\(^5\)\(^6\)\(^7\) which assure sufficient reduction of anti-nutritional factors and undesirable toxic substances such as trypsin and chymotrypsin inhibitors and gossypol. Such seeds may include

\(^4\) The following Guidelines were elaborated by the FAO/WHO/UNICEF Protein and Energy Advisory Group: PAG Guidelines No 2: Preparation of Food Quality Ground Flour PAG Guidelines No 4: Preparation of Edible Cotton Seed Protein Concentrates PAG Guidelines No 5: Guideline for Heat Processed Soy Grits and Flours
\(^5\) Codex standard for Vegetable Protein Products (Codex STAN 174-1989)
\(^6\) Codex standard for Soy Protein Products (Codex STAN 175-1989)
\(^7\) Codex standard for Wheat Protein (Codex STAN 163-1987)
Soya beans: dehulled flour, (full fat and defatted) protein concentrate, protein isolate
Groundnuts: paste, protein isolate
Sesame seed: whole ground and defatted flour
Cottonseed: defatted flour
Sunflower seed: defatted flour, full fat
Low erucic acid rapeseed: full fat flour.

4.1.3.2 Defatted oil seed flours and protein isolates, if produced and appropriately processed for human consumption, can be good sources of protein (50-95%).

4.1.4 Animal Source Foods

Animal source foods such as meat, fish, poultry, eggs, milk and milk products are nutrient dense and good sources of high quality proteins and micronutrients and incorporation of these foods or their derived protein concentrates in Formulated Complementary Foods as technologically feasible is encouraged.

4.1.5 Fats and Oils

4.1.5.1 Fats and oils can be incorporated in adequate quantities as technologically feasible for the purpose of increasing the energy density of the product. Care must be taken to avoid oxidized fat which will adversely affect nutrition, flavour and shelf life. Such care is important for fat-containing ingredients (e.g., oil seed flours and oil seed protein products, fish meals, and fish protein concentrates) as well as fats and oils.

4.1.5.2 Partially hydrogenated fats (and oils) should not be used in Formulated Complementary Foods (Codex STAN 074-1981).

4.1.6 Fruits and Vegetables

Fruits and vegetables may be good sources of micronutrients and can be added to Formulated Complementary Foods, when technologically feasible.

4.2 Other Ingredients

Other ingredients, including those listed below, may be used to improve the nutritional quality and/or acceptability of the Formulated Complementary Foods provided that they are readily available and have been proven to be suitable and safe for their intended purpose.

4.2.1 Digestible carbohydrates

Energy density of Formulated Complementary Foods can be increased by the addition of digestible carbohydrates.

4.2.2 Food additives and flavours

Food additives and flavours listed in the Codex Standard for Processed Cereal-Based Foods for Infants and Young Children (CODEX STAN 074-1981, REV 1-2006) and the Codex Standard for Canned Baby Foods (CODEX STAN 73-1981) may be used in Formulated Complementary Foods to the maximum limits given in those Standards.

Only the food additives referred to in those Standards may be present in the foods covered by these Guidelines, as a result of carry-over from a raw material or other ingredients (including food additives) used to produce the food, subject to the following conditions:

a) The amount of the food additive in the raw materials or other ingredients (including food additives) does not exceed the maximum level specified; and

b) The food into which the food additive is carried over does not contain the food additive in greater quantity than would be introduced by the use of the raw material or ingredients under good

5 TECHNOLOGIES FOR AND EFFECTS OF PROCESSING

5.1 Preliminary Treatment of Raw Materials

Cereals, legumes, pulses and oilseeds should first be treated to obtain wholesome and clean raw materials of good quality. Such treatments include, but are not limited to:

5.1.1 Cleaning or washing: to eliminate dirt, damaged grains, foreign grains and noxious seeds, insects and insect excreta and any adhering material.

5.1.2 Dehulling: when necessary, pulses, legumes, oilseeds and certain cereals such as oats, barley, sorghum, millet and teff should be dehulled as completely as is feasible to reduce the fibre content to acceptable levels and to decrease, and if possible, to eliminate phytates, tannins and other phenolic materials, trypsin and chymotrypsin inhibitors which can lower the protein digestibility and amino acid bioavailability and mineral absorption.

5.1.3 Degermination

5.1.3.1 Where necessary and appropriate, degermination of wheat, corn, soy and other crops should be considered in order to reduce the phytates content.

5.2 Milling

5.2.1 Milling or grinding of suitable raw materials should be carried out in such a way as to minimize the loss of nutritional value and to avoid undesirable changes in the technological properties of the ingredients.

5.2.2 Dry raw materials may be milled together, if technologically feasible, or mixed after milling or grinding.

5.2.3 Formulations containing milled cereals, legumes, pulses and/or oilseeds that have not been otherwise processed require prolonged boiling to gelatinize the starch portions and/or eliminate anti-nutritional factors present in legumes and pulses. Boiling improves the digestibility and absorption of nutrients.

5.2.4 The bulkiness of foods from food formulations containing dry ingredients obtained by milling of the raw materials can be reduced by adding, during the formulation, adequate amounts of enzymes such as alpha-amylase which, during the slow heating to boiling, predigest partially the starch and reduce the amount of water needed for the preparation of the food.

5.3 Toasting

5.3.1 Toasting (dry heating) enhances the flavour and the taste of the food through dextrinization of starch. It also improves digestibility and contributes to reducing the bulkiness of the formulated food. Moreover, it reduces micro-organisms and enzyme activity and destroys insects, thus improving keeping qualities.

5.3.2 Protein damage due to the Maillard reaction may occur in the presence of reducing carbohydrates. The toasting process should therefore be carefully controlled.

5.3.3 Pulses as well as oilseeds such as soya beans, groundnuts and sesame seeds can be toasted as whole grains directly or after soaking.

5.3.4 Toasted raw materials can be milled or ground for use as ingredients.

5.4 Sprouting, Malting and Fermentation

5.4.1 Cereals and pulses can be induced to germinate by soaking or humidifying. It is necessary, however, to ensure that growth of mycotoxin producing microorganisms does not occur. The action of natural amylases contained in the grains results in the predigestion of the starchy portion of the grain (dextrinization) thus reducing the bulk of the food when prepared for feeding and, ultimately,
increasing the nutrient density of the food. Sprouting, malting and fermentation can induce hydrolysis of phytates and decrease its inhibitory effect on mineral absorption, and may improve B vitamin content.

5.4.2 During the germination process, the seed coat of the grain splits and can be removed by washing. The malted raw material is milled or ground after drying.

5.5 Other Processing Technologies

5.5.1 Extrusion Cooking

5.5.1.1 The mix of milled or ground basic ingredients (cereals, pulses, oilseed flours) may be further processed by extrusion-cooking. Extrusion cooking may decrease available L-lysine, sulphur-containing amino acids, L-arginine, L-tryptophan and vitamins. The process should therefore be carefully controlled. The extruded product, after drying if necessary, is milled or ground to the desired particle size.

5.5.1.2 The effects of this technology are:
- gelatinization of the starchy portion of the mixture with minimal quantities of water;
- inactivation of lectins and reduction of trypsin inhibitor activity;
- a reduction in the quantities of water needed for preparation of the food;
- flavour development.

5.5.2 Enzymatic Predigestion

5.5.2.1 With this process the milled or ground basic ingredients (cereals, pulses, and oilseed flours) can be processed in the presence of water and appropriate enzymes under continuous stirring until the mixture acquires the desired fluidity. In the case of the use of amylase, starch molecules are split into dextrins and reducing sugars. After raising the temperature to inactivate the enzyme, the slurry is dried and comminuted to flour or to small flakes to allow for greater nutrient density.

5.5.2.2 The predigested product may have improved organoleptic characteristics, higher digestibility, good solubility, requires less water for the preparation of the food, and hence higher nutrient density.

6. NUTRITIONAL COMPOSITION AND QUALITY FACTORS

6.1 General Aspects

6.1.1 The selection of raw materials and ingredients for the formulation of Formulated Complementary Foods for Older Infants and Young Children should be made having regard to the provisions in Sections 4 and 5 and taking into account the following aspects:
- nutrient content of the local diet;
- dietary habits and infant feeding practices;
- other socio-economic aspects as determined by the national authorities dealing with nutrition;
- availability and quality of raw materials and ingredients.

6.1.2 All processing should be carried out in a manner that maintains protein quality and minimizes loss of micronutrients and maintains overall nutritive value.

6.1.3 Ten to fifty grammes of the product, when prepared according to the instructions, is considered a reasonable quantity which an older infant or young child during the complementary feeding period can ingest easily in one feeding and who may receive two or more feedings per day, depending on age. The range in amount per feeding allows for the various types of Formulated Complementary Foods. The lower part of the range applies to products with higher energy density (e.g., lipid-based products) whereas the upper part of the range would apply to products with lower energy density (e.g., porridges containing cereals).
6.2 Energy

6.2.1 The energy density of a mixture of milled cereals and pulses and defatted oilseed meals and flours on dry weight basis is relatively low.

6.2.2 The energy density of the food can be increased during manufacture by the addition of energy containing ingredients (i.e. fats and oils and/or digestible carbohydrates) and/or processing the basic raw materials and ingredients as indicated in Section 5.

6.2.3 The energy density of the Formulated Complementary Food should be at least 4 kcal per gram on dry weight basis.

6.3 Proteins

6.3.1 Mixtures of cereals, legumes, pulses and/or oilseed flours, can constitute an appropriate source of proteins, provided that the proteins in the Formulated Complementary Food satisfy the criteria below. Protein quality can also be improved by the inclusion of fish products, milk and milk products and/or other animal source foods.

6.3.2 The Protein Digestibility Corrected Amino Acid Score (PDCAAS) should not be less than 70 per cent of that of the WHO amino acid reference pattern for children from 2 – 5 years.

6.3.3 If, for technical reasons, the PDCAAS digestibility of a protein cannot be determined, the protein quality should be measured by biological assays. Alternatively, the protein quality may be calculated from published data on essential amino acid patterns of dietary proteins and their digestibility.

6.3.4 The addition of methionine, lysine, tryptophan or other limiting amino acids, solely in the L-form should be contemplated only when, for economic and technological reasons, no mixture of vegetable and/or animal proteins makes it possible to obtain an adequate protein quality (see 6.3.2).

6.3.5 Taking into account the preceding considerations, the energy from protein should not be less than 6% of the total energy from the product and typically should not exceed 15%.

6.4 Fat

6.4.1 Incorporation of fats and/or oils in Formulated Complementary Foods serves to increase the energy density and the amount of essential fatty acids as well as reduce total volume of the food consumed. At least 20% of energy derived from fat is desirable.

6.4.2 The level of linoleic acid (in the form of glycerides) should not be less than 333 mg per 100 kcal or 1.6 g per 100 g of dry product. The fat or oil used in the production of Formulated Complementary Foods should ensure a ratio between linoleic acid and alpha-linolenic acid of between 5:1 and 15:1.

6.4.3 The use of edible oils containing polyunsaturated fatty acids, including omega-3 fatty acids and in particular docosahexaenoic acid, should be considered. The levels in the WHO/FAO recommendations (FAO/WHO Expert consultation on Fats and fatty acids in human nutrition, Geneva) may be considered.

6.5 Carbohydrates

6.5.1 Starch is likely to be a major constituent of many Formulated Complementary Foods. To ensure that its energy value is realized, this starch should be provided in a readily digestible form. Guidance on increasing the digestibility of starches is given in Section 5. [If nutritive sweeteners are used, they should be used sparingly.]

---

7 PDCAAS (%) = \( \frac{mg \text{ of limiting amino acid in 1 gram of test protein} \times \text{faecal true digestibility of test protein} \times 100}{mg \text{ of limiting amino acid in 1 gram of reference protein}} \)

8 The limiting amino acid is the essential amino present in the lowest proportion as compared with the quantity of this amino acid reference pattern


10 Conversion factor based on Codex Guidelines on Nutrition Labelling (CAC/G/2-1985)

6.5.2 Dietary fibres and other non-absorbable carbohydrates are partially fermented by the intestinal flora to produce short-chain fatty acids, lactate and ethanol which may subsequently be absorbed and metabolized.

Increasing the intake of dietary fibres\textsuperscript{12} increases stool bulk, may cause flatulence and decrease appetite. Fibre load also can reduce the energy density of Formulated Complementary Foods. They also may affect the efficiency of absorption of important nutrients from diets with marginal nutrient contents. The dietary fibre content of the Formulated Complementary Food should therefore be reduced to a level not exceeding 5 g per 100 g on a dry weight basis.

6.6 Vitamins and Minerals

6.6.1 Setting levels for the addition of vitamins and minerals

6.6.1.1 The decision to add vitamins and minerals to a Formulated Complementary Food should take into account local conditions including the nutrient contribution to the diet from local foods, vitamins and minerals provided by national programs, food processing technologies applied and the nutritional status of the target population as well as the requirements stipulated by national legislation and the General Principles for the Addition of Essential Nutrients to Foods (CAC/GL 9-1987).

6.6.1.2 If the dietary intake data for the target population are available, they can be used to determine appropriate levels for the addition of vitamins and/or minerals to ensure a low prevalence of either inadequate or excessive nutrient intakes using available assessment or monitoring tools.

6.6.1.3 If the dietary intake data for the target population is not available, the vitamins and minerals listed in the Table in the Annex to these Guidelines can be used as a reference for the selection of particular vitamins and minerals and their amounts for addition to a Formulated Complementary Food.

6.6.2 National authorities should ensure that the total micronutrient intake from the Formulated Complementary Foods, local diet (including breast milk and/or breast milk substitutes) and other sources do not regularly exceed recommended upper levels of micronutrient intake for older infants and young children.

6.6.3 Selecting vitamins and/or minerals for nutrient addition

6.6.3.1 When establishing the specifications for the premix of vitamin compounds and mineral salts, the vitamin and mineral content and presence of antinutritive substances in the other ingredients used in the formulation of the food should be taken into account.

6.6.3.2 Vitamins and/or minerals should be selected from the Advisory Lists of Nutrient Compounds for Use in Foods for Special Dietary Uses intended for Infants and Young Children (CAC/GL 10-1979) those authorised for cereal-based foods and canned baby foods.

6.6.3.3 The choice of a vitamin and/or mineral compound should take into account its relative bioavailability within the food vehicle, the effect on the sensory properties of the food vehicle and its stability in the packaged food vehicle under normal storage conditions. The General Principles for the Addition of Essential Nutrients to Foods (CAC/GL 9-1987) provides specific guidelines in this area.

7. CONTAMINANTS

7.1 Pesticides Residues

The products should be prepared with special care under good manufacturing practices, so that residues of those pesticides which may be required in the production, storage or processing of the raw materials or the finished food ingredients do not remain, or, if technically unavoidable, are reduced to the maximum extent possible.

These measures should take into account the specific nature of the products concerned and the specific population group for which they are intended.

\textsuperscript{12} Definition of Dietary fibre given in the Codex Guidelines on Nutrition Labelling (CAC/GL 2-1885)
7.2. Other Contaminants
The product should be free from residues of hormones, antibiotics as determined by means of agreed methods of analysis and practically free from other contaminants, especially pharmacologically active substances.

8. HYGIENE
8.1 It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Hygiene (CAC/RCP 1-1969) and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

The product should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

8.2 The ingredients and final product should be prepared, packed and held under sanitary conditions and should comply with relevant Codex texts.\textsuperscript{13}

9. PACKAGING
9.1 It is recommended that Formulated Complementary Foods for Older Infants and Young Children be packed in containers which will safeguard the hygienic and other qualities of the food.

9.2 The containers, including packaging material, shall be made only of materials which are safe and suitable for their intended uses. Where the Codex Alimentarius Commission has established a standard for any such substance used as packaging material, that standard shall apply.

10. LABELLING
10.1 It is recommended that the labelling of Formulated Complementary Foods for Older Infants and Young Children be in accordance with the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 146-1985), the Guidelines for Use of Nutrition and Health Claims (CAC/GL 23-1997) and the Guidelines on Nutrition Labelling (CAC/GL 2-1985).

10.2 The following mandatory provisions should apply:

10.2.1 The Name of the Food
10.2.1.1 The name of the food to be declared on the label shall indicate that the food is a Formulated Complementary Food for older infants and young children. The appropriate designation indicating the true nature of the food should be in accordance with national legislation. The major sources of protein and the age from which the product is recommended for use shall appear in close proximity to the name of the food.

10.2.2 List of Ingredients
The list of ingredients shall be declared in accordance with Section 4.2 of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985).

10.2.3 Declaration of Nutritive Value
The declaration of energy and nutrients on the label or in labelling shall contain the following information expressed per 100 grammes of the Formulated Complementary Food as sold or otherwise distributed as well as per feeding of the food ready for consumption:

(a) energy value, expressed in kilocalories and kilojoules;
(b) the amounts of protein, carbohydrates and fat, expressed in grammes;
(c) in addition to any other nutritional information required by national legislation, the total quantity per feeding of the Formulated Complementary Food ready for consumption of each vitamin and mineral added in accordance with Section 6.6, expressed in metric units.

10.2.4 Instruction for use

10.2.4.1 The label should indicate clearly from which age the product is recommended for use. This age shall not be less than six months for any product. In addition, the label shall include a statement indicating that the decision when precisely to introduce formulated complementary feeding, including any exception to six months of age, should be made in consultation with a health worker, based on the individual infant's specific growth and development needs. Additional requirements in this respect may be made in accordance with the legislation of the country in which the product is sold.

10.2.4.2 Directions as to the preparation and use of the food shall be given; preferably accompanied by graphical presentations.

10.2.4.3 The suggested number of feedings per day should be indicated.

10.2.4.4 In the case that addition of water is needed, the directions for the preparation shall include a precise statement that:

(a) where the food contains non-heat-processed basic ingredients, the food must be adequately boiled in a prescribed amount of water;
(b) where the food contains heat-processed basic ingredients:
   (i) the food requires boiling, or (ii) can be mixed with boiled water that has been cooled.

10.2.4.5 For Formulated Complementary Foods to which fats, sugars or other digestible carbohydrates should be added during preparation, the instructions for use shall identify appropriate sources and indicate the amounts of the ingredients to be added. In such situations, fats and oils with an appropriate essential fatty acid ratio should be recommended.

10.2.4.6 Directions for use shall include a statement that only an amount of food sufficient for one feeding occasion should be prepared at one time. Foods not consumed during the feeding occasion should be discarded, unless consumed within a period as recommended by the manufacturer under the instructions of use.

10.2.4.7 The label should also include a statement that Formulated Complementary Foods are to be consumed in addition to family foods and breast milk/breast milk substitutes.
ANNEX

TABLE

The reference INL$_{98}$ values listed in the Table provide a guide for selection and amounts of vitamins and minerals to be added to a Formulated Complementary Food. The suggested total quantity of each of these vitamins and/or minerals contained in a daily ration of the Formulated Complementary Food is at least 70% of INL$_{98}$.

<table>
<thead>
<tr>
<th>VITAMINS AND MINERALS</th>
<th>REFERENCE$^{14}$ NUTRIENT INTAKE (RNI) or Individual Nutrient Levels$<em>{98}$ (INL$</em>{98}$)</th>
<th>ESTIMATED$^{15}$ AVERAGE REQUIREMENT (100% of the EAR)</th>
<th>70% of RNI$^{16}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A $\mu g$ retinol equivalent</td>
<td>400</td>
<td>286</td>
<td>280</td>
</tr>
<tr>
<td>Vitamin D$^{17}$ $\mu g$</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Vitamin E $\mu g$ ($\alpha$-Tocopherol)</td>
<td>5</td>
<td>4</td>
<td>3.5</td>
</tr>
<tr>
<td>Vitamin C $\mu g$</td>
<td>30</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Thiamine $\mu g$</td>
<td>0.5</td>
<td>0.4</td>
<td>0.35</td>
</tr>
<tr>
<td>Riboflavin $\mu g$</td>
<td>0.5</td>
<td>0.4</td>
<td>0.35</td>
</tr>
<tr>
<td>Niacin $\mu g$ NE</td>
<td>6</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Vitamin B$_6$ $\mu g$</td>
<td>0.5</td>
<td>0.4</td>
<td>0.35</td>
</tr>
<tr>
<td>Folate $\mu g$ DFE</td>
<td>150</td>
<td>120</td>
<td>105</td>
</tr>
<tr>
<td>Vitamin B$_{12}$ $\mu g$</td>
<td>0.9</td>
<td>0.7</td>
<td>0.63</td>
</tr>
<tr>
<td>Calcium $\mu g$</td>
<td>500</td>
<td>417</td>
<td>350</td>
</tr>
<tr>
<td>Iron $\mu g$</td>
<td>11.6, 5.8, 3.9</td>
<td>11.6, 5.8, 3.9</td>
<td>8.1, 4.1, 3.4</td>
</tr>
<tr>
<td>Zinc $\mu g$</td>
<td>8.3, 4.1, 2.4</td>
<td>6.9, 3.4, 2.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Iodine $\mu g$</td>
<td>90</td>
<td>64</td>
<td>63</td>
</tr>
<tr>
<td>Copper $\mu g$</td>
<td>0.34</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Selenium $\mu g$</td>
<td>17</td>
<td>14</td>
<td>11.9</td>
</tr>
<tr>
<td>Vitamin K $\mu g$</td>
<td>15</td>
<td>15</td>
<td>10.5</td>
</tr>
<tr>
<td>Biotin $\mu g$</td>
<td>8</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Pantothenic acid $\mu g$</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Magnesium $\mu g$</td>
<td>60</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Manganese $\mu g$</td>
<td>1.2</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Phosphorus $\mu g$</td>
<td>460</td>
<td>460</td>
<td></td>
</tr>
</tbody>
</table>

$^{14}$ RNI or INL$_{98}$ from FAO/WHO Vitamins and Mineral requirements in Human Nutrition.2$^{nd}$ Edition. FAO/WHO 2004 (for all nutrients except copper, manganese and phosphorus)

$^{15}$ Estimated Average Requirement (calculated values) based on FAO/WHO Recommended Nutrient Intakes. FAO/WHO Guidelines on Food Fortification with Micronutrients (WHO and FAO, 2006)

$^{16}$ These values were calculated [by EWG Australia delegation], 70% of the RNI (INL$_{98}$)

$^{17}$ Vitamin D should be added if there is inadequate exposure to sunlight

$^{18}$ Because of skewed distribution of iron requirements for young children, the corresponding 100% RNI values are given for 5%, 10 % and 15% respectively, dietary iron bioavailability

$^{19}$ Zinc 100% EAR for low, medium and high; dietary zinc bioavailability

$^{20}$ Values are 100% Recommended Nutrient Intakes

$^{21}$ Values are Dietary Reference Intakes. Institute of Medicine, 2002/2005 (Source for Copper, Manganese and Phosphorus).
APPENDIX V

PROPOSED DRAFT ANNEX TO THE CODEX GUIDELINES ON NUTRITION LABELLING:

GENERAL PRINCIPLES FOR ESTABLISHING NUTRIENT REFERENCE VALUES FOR NUTRIENTS ASSOCIATED WITH RISK OF DIET-RELATED NONCOMMUNICABLE DISEASES FOR THE GENERAL POPULATION

(At Step 3 of the Procedure)

1. PREAMBLE

These principles apply to the establishment of Codex Nutrient Reference Values for labelling purposes for nutrients associated with risk of diet-related noncommunicable diseases (NRVs-NCD) for the general population identified as individuals older than 36 months. These values may be used for helping consumers 1) estimate the relative contribution of individual products to overall healthful dietary intake, and 2) as one way to compare the nutrient content between products. Governments are encouraged to use the NRVs-NCD, or alternatively, consider the suitability of the general principles below and additional factors specific to a country or region in establishing their own reference values for labelling purposes, for nutrients associated with diet-related noncommunicable diseases.

For example, at the national level, population-weighted values for the general population may be established by weighting science-based reference values for daily intakes for age-sex groups using census data for a country and proportions of each age-sex group. Governments may also consider whether to establish separate food label reference values for specific segments of the general population.

2. DEFINITION(S)

2.1 Nutrient Reference Values - Noncommunicable Disease (NRVs-NCD) refer to Codex nutrient reference values for food labelling purposes for nutrients that are associated with risk of diet-related noncommunicable diseases not including nutrient deficiency diseases or disorders.

2.2 Daily Intake Reference Values as used in these principles refer to reference nutrient intake values provided by FAO/WHO or other recognized authoritative scientific bodies that may be considered in establishing an NRV-NCD based on the principles and criteria in Section 3. These values may be expressed in different ways (e.g., as a single value or a range), and are applicable to the total population or to a segment of the population (e.g., recommendations for a specified age range).

2.3 Upper Level of Intake (UL)\(^{22}\) is the maximum level of habitual intake from all sources of a nutrient or related substance judged to be unlikely to lead to adverse health effects in humans.

2.4 Acceptable Macronutrient Distribution Range (AMDR) is a range of intakes for a particular energy source that is associated with reduced risk of diet-related noncommunicable diseases while providing adequate intakes of essential nutrients. For macronutrients, they are generally expressed as a percentage of energy intake.

3. GENERAL PRINCIPLES FOR ESTABLISHING NRVs-NCD

3.1 Criteria for Selection of Nutrients

The following criteria should be considered in the selection of nutrients for the establishment of NRVs-NCD:

- Relevant convincing\(^25\)/generally accepted\(^24\) scientific evidence for the relationship between a nutrient and noncommunicable disease risk, including validated biomarkers for relevant disease risk.

\(^{22}\) Different countries may use other terms for this concept, for example, Tolerable Upper Nutrient Intake Level (UL) or upper end of safe intake range.
In addition,

Option 1
governments may consider the suitability of probable evidence\(^{25}\) in conjunction with other relevant bases in establishing their own food label reference value(s).

OR

Option 2
the suitability of probable evidence\(^{4}\) may need to be considered.

- Public health importance of the nutrient-noncommunicable disease risk relationship(s) among Codex member countries.

3.2 Selection of Suitable Data Sources to Establish NRVs-NCD

3.2.1 Relevant daily intake reference values provided by FAO/WHO that are based on a recent review of the science should be taken into consideration as primary sources in establishing NRVs-NCD.

3.2.2 Relevant daily intake reference values that reflect recent independent review of the science, from recognized authoritative scientific bodies other than FAO/WHO could also be taken into consideration. Higher priority should be given to values in which the evidence has been evaluated through a systematic review.

3.2.3 The daily intake reference values should reflect intake recommendations for the general population.

3.3 Selection of Appropriate Basis for Determining and Expressing NRVs-NCD

3.3.1 Relevant and peer-reviewed scientific evidence for quantitative reference values for daily intake should be available in order to determine an NRV-NCD that is applicable to the general population.

3.3.2 Daily intake reference values from FAO/WHO or other recognized authoritative scientific bodies that may be considered for NRVs-NCD include values expressed in absolute amounts or as a percentage of energy intake.

3.3.3 For practical application in nutrition labelling, a single NRV-NCD for the general population should be established for each nutrient that meets the principles and criteria in this Annex.

---

\(^{23}\) [Convincing Evidence is evidence based on epidemiological studies showing consistent associations between exposure and disease, with little or no evidence to the contrary. The available evidence is based on a substantial number of studies including prospective observational studies and where relevant, randomized controlled trials of sufficient size, duration and quality showing consistent effects. The association should be biologically plausible. The definition of ‘convincing evidence’ was taken from the following FAO/WHO reports: 1) *Fats and Fatty Acids in Human Nutrition: Report of an Expert Consultation.* FAO Food and Nutrition Paper 91. Rome. FAO, 2010. and 2) *Diet, Nutrition and the Prevention of Chronic Diseases.* WHO Technical Report Series 916. WHO, 2003.]

\(^{24}\) For these General Principles the terms convincing/generally accepted evidence are considered synonymous.

\(^{25}\) [Probable Evidence is evidence strong enough to support a judgement of a probable causal relationship, which would generally justify goals and recommendations designed to reduce the incidence of cancer. All of the following are generally required:

- Evidence from at least two independent cohort studies, or at least five case control studies.
- No substantial unexplained heterogeneity between or within study types in the presence or absence of an association or direction of effect.
- Good quality studies to exclude with confidence the possibility that the observed association results from random or systematic error, including confounding, measurement error and selection bias.
- Evidence for biological plausibility.

3.3.4 An NRV-NCD for the general population should be determined from the daily intake reference value for the general population or adults, or if given by sex, the mean of adult males and adult females.

3.3.5 Where a daily intake reference value is based on a percentage energy intake, the single NRV-NCD should be expressed in grams or milligrams based on a reference intake for the general population of 8370 kilojoules/2000 kilocalories.

Governments may use a Codex NRV-NCD based on the reference energy intake of 8370 kilojoules/2000 kilocalories, or may derive their own reference values for nutrition labelling based on another reference energy intake that considers factors specific to their country or region.

3.4 Consideration of Daily Intake Values for Upper Levels

The establishment of general population NRVs-NCDs should take into account daily intake reference values for upper levels established by FAO/WHO or other recognized scientific authoritative bodies where applicable (e.g., Upper Level of Intake, Acceptable Macronutrient Distribution Range).