

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
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Agenda Item 5

**CX/NFSDU 02/5-Add. 1
September 2002**

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

**CODEX COMMITTEE ON NUTRITION AND FOODS FOR SPECIAL DIETARY USES
Twenty-fourth Session
Berlin, Germany, 4 - 8 November 2002**

PROPOSED DRAFT REVISED STANDARD FOR PROCESSED CEREAL-BASED FOODS FOR INFANTS AND YOUNG CHILDREN

**Comments of the Working Group¹
regarding the revision of Section 3: Essential Composition and Quality Factor**

I. BACKGROUND AND INTRODUCTION

At the 23rd session of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU), the Committee noted that it would not be possible to review Section 3: (Essential Composition and Quality Factor) of the Codex Proposed Draft Revised Standard For Processed Cereal-Based Foods For Infants And Young Children at Step 3 (ALINORM 03/26, APPENDIX IV) because of time constraint. In order to obtain comments from all interested parties on the subject, the Committee decided to establish a Working Group working by electronic mail to be chaired by the Delegation of Malaysia.

Malaysia sent out a circular letter to all countries and international organizations who had indicated interest in participating in the working group discussion based on the report ALINORM 03/26 as follows: Bulgaria, Canada, China, Denmark, Egypt, France, Germany, India, Indonesia, Japan, Mexico, Nigeria, Norway, Singapore, South Africa, Thailand, Turkey, UK, Uruguay, ALACTA, ENCA, IBFAN, IACFO, ISDI, IOCC and the EC. As advised by the 23rd session of the CCNFSDU, this circular letter only requested comment on **Section 3: Essential Composition and Quality Factor**.

Working group members who responded to our circular letter are as follows: Brazil, Germany, Hungary, Malaysia, Norway, Nigeria, Slovak Republic, South Africa, Uruguay, EC, ENCA and ISDI.

This report is a compilation of all the comments received, organized according to the various sub-sections of the document.

¹ Malaysia (coordinator), Brazil, Germany, Hungary, Norway, Nigeria, Slovak Republic, South Africa, Uruguay, EC, ENCA and ISDI

2. RECOMMENDATIONS FOR REVISIONS TO SECTION 3

The recommendations contained in this report took into consideration the following:

- Written comments received from the work group members that responded to circular letter sent by Malaysia, as of 30th August 2002.
- Additional written comments from the 22nd Session of the CCNFSDU that addressed these particular topics

All comments received were incorporated into this report. No comments were purposely left out. Wherever possible, the rationale for each of the proposed changes is given.

Please note that changes in the text from ALINORM 03/26, APPENDIX IV, are generally identified in this document as follows:

Added/change text (**bold**)
deleted text (~~strike through~~)

3.1 ESSENTIAL COMPOSITION

Section 3.1.1

Proposed Rewording

“3.1.1 The four categories listed in 2.1.1 to 2.1.4 Dry cereal, rusk, biscuits and pasta are prepared primarily from one or more milled cereal products, such as wheat, rice, barley, oats, rye, maize, millet, sorghum and buckwheat. It may also contain legumes (pulses), starchy roots (such as arrow root, yam or cassava) or starchy stems or oil seeds in smaller proportions”.

Rationale

- The revised sentence gives a clearer definition and is easier to understand
- Two comments suggested to delete “primarily” from the sentence. It is felt that the word primarily should not be deleted because there was already agreement on this matter during the 23rd Session of the CCNFSDU on this description of this product (Item 2, Appendix IV, ALINORM 03/26) and hence the title of this document: cereal-based foods.

Section 3.1.2

No proposal to change this section was received from members of the working group

“3.1.2 The requirements concerning energy and nutrients refer to the product ready for use as marketed or prepared according to the instructions of the manufacturer, unless otherwise specified”.

3.2 ENERGY DENSITY

Proposed change

“The energy density of cereal-based foods should not be less than 0.8 kcal/100g (3.3 kJ/100g)”

Rationale

- The unit for the expression of energy density is incorrect, probably an editorial error; it should be per g of the food
- There was a suggestion to change 3.3 kJ/g to 3.5 kJ/g, which cannot be accepted because if we use the formula of 1 kcal = 4.184, 0.8 kcal/g should be equivalent to 3.3 kJ/g.
- There was a comment that the energy density of the product should not be less than that of mature human milk, i.e. 70 kcal per 100 ml. In this draft standard, the energy density of the product should not be less than 80 kcal per 100 g, therefore higher than that of human milk

3.3 PROTEIN

Section 3.3.1

Proposed change

*“3.3.1 The chemical index of the added protein shall be equal to at least 80% of that of the reference protein **casein** or the Protein Efficiency Ratio (PER) of the protein in the mixture shall be equal to at least 70% of that of the reference protein **casein**. In all cases, the addition of amino acids is permitted solely for the purpose of improving the nutritional value of the protein mixture, and only in the proportions necessary for that purpose. Only natural forms of L-amino acids should be used”.*

Rationale

- Casein was indicated as reference protein in ALINORM 99/26 Annex IV.
- The word “casein” has been proposed to be added after the words “reference protein”, consistent with several comments received.
- There is also a suggestion that “reference protein” should refer to breast milk, as given in Appendix III, ALINORM 03/26 (Proposed draft revised standard for infant formula – Codex Stan 72-1981)

Section 3.3.2

No proposal to change this section was received from members of the working group

“3.3.2 For products mentioned in points 2.1.2 and 2.1.4, the protein content shall not exceed 1.3 g/100kJ (5.5 g/100kcal)”.

Section 3.3.3

No proposal to change this section was received from members of the working group

“3.3.3 For products mentioned in point 2.1.2 the added protein content shall not be less than 0.48 g/100kJ (2 g/100 kcal)”.

Section 3.3.4

No proposal to change this section was received from members of the working group

“3.3.4 For biscuits mentioned in point 2.1.4 made with the addition of a high protein food, and presented as such, the added protein shall not be less than 0.36g/100 kJ (1.5g/100kcal)”.

3.4 CARBOHYDRATES

Section 3.4.1

Proposed no change

“3.4.1 If sucrose, fructose, glucose, glucose syrup or honey are added to products mentioned in points 2.1.1 and 2.1.4

- *the amount of added carbohydrates from these sources shall not exceed 1.8g/100kJ (7.5g/100 kcal)*
- *the amount of added fructose shall not exceed 0.9g/100 kJ (3.75 g/100kcal)” .*

Rationale

- No change in the text is proposed.
- There was a proposal to invert 1.8g/100 kJ to 100 kJ/1.8g but it was felt not necessary to make this change.

Section 3.4.2

Propose

“3.4.2 If sucrose, fructose, glucose syrup or honey are added to products mentioned in point 2.1.2

- *the amount of added carbohydrates from these sources shall not exceed ~~0.48g/100 kJ~~ ~~(2.0g/100kcal)~~ **2g/100kJ (8.4/100kcal)***
- *the amount of added fructose shall not exceed 0.6g/100kJ (2.5g/100 kcal)]”.*

Rationale

- It was pointed out that there is a mistake concerning the amount of permitted added carbohydrate. This point has been discussed in paragraph 63., ALINORM 99/26 of the 21st Session of the Codex Committee on NFSDU where the carbohydrate level has been modified and raised from 1.2g to 2g/100kJ. This level was mistranscribed in the draft standard and the value of 2 g is given for 100 kcal instead of 100 kJ and then divided by 4.18 to obtain the value per kJ ($2/4.18 = 0.48$).

3.5 LIPIDS**Proposed change**

“For products mentioned in point 2.1 the lipid content shall not exceed 1.1g/100kJ (4.5 g/100kcal). If the lipid content exceeds 0.8g/100kJ (3.3g/100kcal):

- *the amount of linoleic acid (in the form of triglycerides = linoleates) shall not be less than 70 mg/100kJ (300 mg/100kcal) and shall not exceed 285 mg/100kJ (1200 mg/100kcal)*
- [- the amount of lauric acid shall not exceed 15% of the total lipid content*
- the amount of myristic acid shall not exceed 15% of the total lipid content”]*
- [The use of partially hydrogenated fats for these products is prohibited]*
- [Product category 2.1.2 should have a minimum lipid content of 3.3 g/100 kcal (0.8 g /100 kJ)]*

Rationale

- There was a proposal to restrict the ‘medium-chain fatty acids (lauric and myristic acids)’ and to add a minimum lipid content for product category 2.1.2 of 3.3g/100 kcal (0.8g/100 kJ) to ensure that they contribute to the high energy (fat) requirement of infants in the second half of the first year of life.
- There were several comments proposing to prohibit the use of partially hydrogenated fats as ingredients.

3.6 MINERALS**Section 3.6.1****Proposed no change:**

“3.6.1 The sodium content of the products described in Section 2.1.1 to 2.1.4 of this Standard shall not exceed [100mg/100kcal] of the ready-to-eat product, except in the case of products intended for children over one year of age, where the sodium content shall not exceed [200 mg/100kcal]”.

Rationale

- Some countries were of the opinion that the proposed sodium content of 100mg/100kcal is considered safe for infants and 200mg/100kcal for the ready to eat product is safe for products intended for children over one year of age.
- Several other comments proposed that the higher level of sodium in products for children over one year of age is not acceptable.
- There was no consensus on the two levels of sodium proposed for products for younger infants and that for children over 1 year of age. Therefore the square brackets are retained for further discussion

Section 3.6.2**No proposal to change was received from members of the working group.**

“3.6.2 The calcium content shall not be less than 20 mg/100 kJ (80 mg/100 kcal) for products mentioned in points 2.1.2”.

Rationale

- One country commented that it is not appropriate to lay down requirements regarding the specific content of certain nutrients in such a standard. The addition of essential nutrients as stated in the Codex General Principles for the Addition of Essential Nutrients to Foods (CAC/GL 09-1987) should be the responsibility of national authorities, depending upon the particular nutritional problem to be corrected, the characteristics of the target population and the food consumption pattern of the area.

- There was another comment questioning the need for specifying a minimum calcium content.

Section 3.6.3

No proposal to change was received from members of the working group.

“3.6.3 The calcium content shall not be less than 12 mg/100 kJ (50mg/100kcal) for products mentioned in point 2.1.4 containing milk”.

Rationale

Same as 3.6.2

3.7 VITAMINS

Section 3.7.1

Proposed no change.

“3.7.1 The amount of vitamin B1 (thiamin) shall not be less than [15ug/100 kJ] [(60ug/100kcal)]”

Rationale

- Some countries proposed to remove the square brackets and accept the values within the brackets.
- Other countries proposed to increase the level to 25ug/100kJ or (100ug/100kcal).
- As there was no consensus on the matter, the level of thiamin is kept in square brackets.

Section 3.7.2

Proposed change

“3.7.2 For products mentioned in 2.1.2, the amount of vitamin A and vitamin D expressed in ug/100kcal shall be within the following limits.

	<i>ug/100kcal</i>	<i>ug/100kJ</i>
<i>Vitamin A (ug retinal equivalents)</i>	<i>60 - 180</i>	<i>14-43</i>
<i>Vitamin D</i>	<i>1 - 3</i>	<i>0.25-0.75</i>

These limits are also applicable to other processed cereal-based foods when vitamin A or D are added”.

Rationale

- Several member countries have suggested that for consistency the information on the amounts of vitamin A and vitamin D should be expressed also per 100kJ.

Section 3.7.3

Proposed change

*“3.7.3 Derogations to the maximum amounts for vitamin A **and Vitamin D** referred to in 3.7.2 and the addition of vitamins and minerals for which specifications are not set above shall be in conformity with the legislation of the country in which the product is sold”.*

Rationale

- There was a proposal to include vitamin D in specifying the maximum amounts of these two vitamins because of the possibility of excessive and potentially harmful intake of this vitamin by infants and young children that could lead to increased risk of vitamin D toxicity.

Section 3.7.4

No proposal to change this section was received from members of the working group

“3.7.4 Vitamins and/or mineral added should be selected from the Advisory Lists of Mineral Salts and Vitamin Compounds for Use in Foods for Infants and Children (CAC/GL 10-1979)”.

3.8 OPTIONAL INGREDIENTS

Section 3.8.1

Proposed change

“3.8.1 In addition to the ingredients listed 3.1, other ingredients suitable for infants who are more than ~~four to~~ six months of age and for young children can be used”.

Rationale

- The proposed change is consistent with the agreed age of introduction of cereal-based foods elsewhere in this document and also in accordance with the recommendations of the World Health Assembly Resolution (WHA 54.2 -2001) that was actively discussed in the 23rd session of the CCNFSDU.

Section 3.8.2

Proposed change

*“3.8.2 Products containing honey or maple syrup should be processed in such a way as to destroy spores of ~~Clostridium botulinum~~ *Clostridium botulinum*, if present”.*

Note

- The writing of *Clostridium botulinum* in italics is a generally accepted procedure

Section 3.8.3

Proposed change:

“3.8.3 Cocoa can be used only in products to be consumed after [nine months] of age, and at the maximum level of 1.5% m/m in the ready-to-eat product”.

Rationale

- There were suggestions to extend the age of introduction of cocoa to beyond 9 months (e.g. 12 months) because of the potential allergic reaction of cocoa.
- On other hand, other countries do not agree that cocoa is to be consumed only after 9 months because allergens are also found in other foods, such as milk and soy.
- There is therefore no consensus on this matter and the words “nine months” is placed in square brackets.

3.9 QUALITY FACTORS

Section 3.9.1

Proposed no change

“3.9.1 All ingredients, including optional ingredients, shall be clean, safe, suitable and of good quality”

Rationale

- There was a proposal to delete the words “including optional ingredients” because the wording “all ingredients” already covered them. No change in the text was proposed because “all ingredients” and “including optional ingredients” may have different meanings.
- There was a proposal to add “according to GMP if applicable” to the end of the sentence.

Section 3.9.2

No proposal to change this section was received from members of the working group

“3.9.2 All processing and drying should be carried out in a manner that minimizes loss of nutritive value, particularly protein quality”.

Section 3.9.3

No proposal to change this section was received from the members of the working group

“3.9.3 The moisture content of the products shall be governed by good manufacturing practice for the individual product categories and shall be at such a level that there is a minimum loss of nutritive value and at which microorganisms cannot multiply”.

3.10 CONSISTENCY AND PARTICLE SIZE

Section 3.10.1

Proposed to delete the square brackets

“3.10.1 When prepared according to the label directions for use, processed, cereal-based foods should have a texture appropriate for the ~~{spoon feeding}~~ of infants or young children of the age for which the product is intended”.

Rationale

- To delete the square brackets around “spoon feeding” consistent with comments received from several countries
- The aim of provision 3.10.1 is to ensure that semi-solid or solid food’s texture is suitable for infant feeding and “Spoon Feeding’ was introduced to clarify that feeding of these food via bottle is not appropriate.

Section 3.10.2

No proposal to change this section was received from members of the working group

“3.10.2 Rusks and biscuits may be used in the dry form so as to permit and encourage chewing or they may be used in a liquid form, by mixing with water or other suitable liquid, that would be similar in consistency to dry cereals”.

3.11 SPECIFIC PROHIBITION

No proposal to change this section was received from members of the working group

“3.11 The product and its components shall not have been treated by ionizing radiation”.