

codex alimentarius commission

FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD HEALTH
ORGANIZATION

JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel.: 57051 Telex: 625825-625853 FAO I E-mail: Codex@fao.org Facsimile: +39(06)5705.4593

CX 5/20.2

CL 1999/20-NFSDU
September 1999

TO: Codex Contact Points
Interested International Organizations

FROM: Secretary, Joint FAO/WHO Food Standards Programme
FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy

SUBJECT: **REQUEST FOR COMMENTS AND INFORMATION ON THE PROPOSED
DRAFT REVISED STANDARD FOR PROCESSED CEREAL-BASED FOODS
FOR INFANTS AND YOUNG CHILDREN AT STEP 3**

DEADLINE: **15 January 2000**

COMMENTS: **To:** Dr Rolf Grossklaus
Director und Professor
Bundesinstitut für gesundheitlichen
Verbraucherschutz und
Veterinärmedizin
(BgVV)
P.O. Box 33 00 13
14191 Berlin
Germany
Fax: +49 (30) 84 12 - 37 15
Email: ccnfsdu@bgvv.de

Copy to: Secretary
Joint FAO/WHO Food Standards
Programme
FAO
Viale delle Terme di Caracalla
00100 Italy
Fax: +39 (06) 5705 4593
E-mail: codex@fao.org

BACKGROUND

Following the proposal of the 19th Session of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) to undertake the revision of the Codex Standard for Cereal-Based Foods for Infants and Young Children, which was approved as new work by the 21st session of the Codex Alimentarius Commission¹, the current text of the Proposed Draft Revised Standard was considered extensively by the 20th² and 21st³ sessions of the CCNFSDU.

The 21st Session of the CCNFSDU (ALINORM 99/26, para. 82) recognizing the progress made on the Revision of the text, agreed to forward the Proposed Draft to the Commission for adoption at Step 5.

While considering the Proposed Draft Revised Standard for Processed Cereal-Based Foods for Infants and Young Children at Step 5 at the 23rd Session of the Codex Alimentarius Commission (ALINORM 99/37, paras 179-182), the Delegations of Bolivia, Ghana, India, Indonesia, and Tanzania supported by many other delegations, expressed their concern at the introduction of “starchy roots and stems” in the

¹ ALINORM 95/37, para. 85 and ALINORM 95/4 Appendix II.

² ALINORM 97/26, paras 65-89 and Appendix VIII.

³ ALINORM 99/26, paras 50-82 and Appendix IV.

composition of cereal-based foods for infants and young children and also about the age of introduction of these foods as “four to six months”. They desired deletion of “starchy roots and stems” and wanted the age of introduction to be “about six months” so that the interests of infants and young children in the developing world could be protected. The Delegation of Ghana stated that the inclusion of the words “about six months” would support the efforts of developing countries to promote exclusive breast-feeding. The Indian Delegation drew attention to the World Health Assembly Resolution of 1994 and the recent WHO publication “*Complementary Feeding of Young Children in Developing Countries: a review of current scientific knowledge*” (WHO/NUT/98.1) where the age was recommended to be “about six months”.

The Representatives from WHO stated that the issue of appropriate duration of exclusive breast feeding and the introduction of complementary feeding was of critical importance for the health and nutritional well-being of infants and children. There had been some misunderstanding about the WHO recommendation in this regard. The current WHO recommendation was that complementary feeding should start at between four and six months of age for most infants. The WHO Representatives stated therefore, that the references to the age range of four to six months in the proposed Draft Revised Standard for Processed Cereal-based Foods for Infants and Young Children (ALINORM 99/26, Appendix IV) were consistent with the current WHO recommendation.

The Commission decided to return the Proposed Draft Revised Standard to Step 3 for further discussion in the Committee.

The following Delegations expressed their opposition to returning the text to Step 3: Australia, Austria, Belgium, Finland, France, Germany, Italy, Spain, Switzerland, United Kingdom and United States.

Governments and international organizations are therefore invited to submit their comments or information on the attached Proposed Draft Revised Standard for Processed Cereal-Based Foods for Infants and Young Children at Step 3 (see Annex) and should do so in writing in conformity with the Uniform Procedure for the Elaboration of Codex Standards and Related Texts (see *Procedural Manual of the Codex Alimentarius Commission, Tenth Edition, pages 20-21*) preferably by an email to addressees as indicated above **not later than 15 January 2000**.

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

(At Step 3 of the Procedure)

1. SCOPE

This standard covers processed cereal-based foods intended for feeding infants as a complement to breast milk or infant formula when, from the age of [4 to 6 months] onwards, breast feeding alone or infant formula is no longer sufficient to satisfy nutritional requirements and for feeding young children as part of their progressively diversified diet.

2. DESCRIPTION

Processed cereal-based foods are prepared primarily from one or more milled cereals and/or legumes (pulses) and/or starchy root or stem products which constitute at least 25% of the final mixture on a dry weight basis.

2.1. PRODUCT DEFINITIONS

Four categories are distinguished:

2.1.1 simple cereals which are or have to be reconstituted with milk or other appropriate nutritious liquids;

2.1.2 Cereals with an added high protein food which are or have to be reconstituted with water or other protein-free liquid

2.1.3 Pasta which are to be used after cooking in boiling water or other appropriate liquids;

2.1.4 Rusks and biscuits which are to be used either directly or, after pulverization, with the addition of water, milk or other suitable liquids.

2.2 OTHER DEFINITIONS

2.2.1 The term **infant** means a person not more than 12 months of age.

2.2.2 The term **young children** means persons from the age of more than 12 months up to the age of three years (36 months).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 ESSENTIAL COMPOSITION

3.1.1 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 and/or legumes (pulses) and/or starchy roots (such as arrow root, yam or cassava) or starchy stems and also, sesame, and soybean.

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

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

3.3 PROTEIN

3.3.1 The chemical index of the added protein shall be equal to at least 80% of that of the reference protein 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. 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

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

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

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 0.36 g/100 kJ (1.5 g/ 100 kcal).

3.4 CARBOHYDRATES

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 1.8 g/100 kJ (7.5 g/100 kcal)
- the amount of added fructose shall not exceed 0.9 g/100 kJ (3.75 g/100 kcal).

3.4.2 If sucrose, fructose, glucose, 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 (2.0 g/100kcal)
- the amount of added fructose shall not exceed 0.6 g/100 kJ (2.5 g/100 kcal).

3.5 LIPIDS

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

- the amount of linoleic acid (in the form of triglycerides=linoleates) shall not be less than 70 mg/100 kJ (300 mg/100 kcal) and shall not exceed 285 mg/100 kJ (1200 mg/100 kcal).

3.6 MINERALS

3.6.1 The sodium content of the products described in Sections 2.1.1 to 2.1.4 of this Standard shall not exceed [100 mg/100 kcal] 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/100 kcal].

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

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

3.7 VITAMINS

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

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

vitamin A (μg retinol equivalents)	60 - 180
vitamin D	1 - 3

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

3.7.3 Derogations to the maximum amounts for vitamin A 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.

3.7.4 Vitamins and/or minerals 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

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

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

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.

3.9 QUALITY FACTORS

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

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

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

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.

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

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

4. FOOD ADDITIVES

The following additives are permitted in the preparation of processed cereal-based foods for infants and children, as described in Section 2.1 of this Standard (in 100 g of product, on a dry weight basis unless otherwise indicated)

4.1 EMULSIFIERS

4.1.1 Lecithin 1.5 g

4.1.2 Mono- and diglycerides 1.5 g

4.2 PH ADJUSTING AGENTS

4.2.1	Sodium hydrogen carbonate	GMP, within the limits for sodium
4.2.2	Potassium hydrogen carbonate	Good manufacturing practice
4.2.3	Calcium carbonate	
4.2.4	L(+) Lactic acid	1.5 g
4.2.5	Citric acid	2.5 g

4.3 ANTIOXIDANTS

4.3.1	Mixed tocopherols concentrate	300 mg/kg fat, singly or in combination
4.3.2	Alpha-tocopherol	
4.3.3	L-Ascorbyl palmitate	200 mg/kg fat
4.3.4	L-Ascorbic acid and its sodium and potassium salts	50 mg, expressed as ascorbic acid and within the limits for sodium

4.4 FLAVOURS

4.4.1	Vanilla extract	GMP
4.4.2	Ethyl vanillin	7 mg/100g on an as consumed basis
4.4.3	Vanillin	

4.5 ENZYMES

4.5.1	Malt carbohydrases	GMP
-------	--------------------	-----

4.6 LEAVENING AGENTS

4.6.1	Ammonium carbonate	Limited by GMP
4.6.2	Ammonium hydrogen carbonate	

5. CONTAMINANTS**5.1 PESTICIDE RESIDUES**

The product shall 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 ingredient do not remain, or, if technically unavoidable, are reduced to the maximum extent possible.

The products covered by the provisions of the Standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission.

5.2 OTHER CONTAMINANTS

The product shall 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.

6. HYGIENE⁴

6.1 It is recommended that the product 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 Food Hygiene (CAC/RCP 1 1969, Rev. 3, 1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2 The products 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).

7. PACKAGING

7.1 The product shall be packed in containers which will safeguard the hygienic and other qualities of the food.

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

8. LABELLING

8.1 In addition to the requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985 (Rev. 1-1991), Codex Alimentarius Volume 1), the following specific provisions apply:

8.2 Any indication required in the labelling should be made in the appropriate language of the country in which the product is sold.

8.1 THE NAME OF THE FOOD

The name of the food shall be "Dry Cereal for Infants (and/or Young Children)", "Rusks for Infants (and/or Young Children)" or "Biscuits (or "Milk Biscuits") for Infants (and/or Young Children)" or "Pasta for Infants (and/or Young Children)", or any appropriate designation indicating the true nature of the food, in accordance with national legislation.

8.2 LIST OF INGREDIENTS

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

8.2.2 The specific name shall be declared for ingredients and food additives. In addition, appropriate class names for these ingredients and additives may be included on the label.

8.3 DECLARATION OF NUTRITIVE VALUE

8.3.1 The declaration of nutrition information shall contain the following information in the following order:

(a) the energy value, expressed in calories (kcal) or kilojoules (kJ), and the amount of protein, carbohydrate and fat expressed in grammes (g) per 100 g of the food as sold, and where appropriate, as per specified quantity of the food as suggested for consumption;

⁴ The 23rd Session of the Commission adopted the amendment concerning the food hygiene provisions to be used in the commodity standards (ALINORM 99/37, para.68).

(b) in addition to any other nutritional information required by national legislation, the total quantity in the final product of each vitamin and mineral added according to Section 3.2.2 shall be declared per 100 g as well as according to the serving size of the food suggested for consumption;

(c) the average quantity of the vitamins and minerals when their declaration is not covered by the provisions of section 8.3.1 (b) expressed in numerical form per 100 g or 100 ml of the product as sold and were appropriate per specified quantity of the foods as suggested for consumption.

8.4 DATE MARKING AND STORAGE INSTRUCTIONS

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

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

8.4.3 Where practicable, storage instructions shall be in close proximity to the date marking.

8.5 INFORMATION FOR UTILIZATION

8.5.1 Directions as to the preparation and use of the food, and its storage and keeping before and after the container has been opened, shall appear on the label or on the accompanying leaflet.

8.5.2 For products covered by 2.1.1, directions on the label shall state "Milk or formula but no water shall be used for dilution or mixing" or an equivalent statement.

8.5.3 The presence or absence of gluten should be indicated on in the label, if the intended age of use is below [six months].

[8.5.4 The label shall indicate clearly from which age the product is intended for use. The label shall clearly state that the product is not recommended for use below 4 to 6 months. In addition, the label shall include a statement indicating that the decision when precisely to begin complementary feeding should be made in consultation with a health worker, based on the infant 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.]

8.6 ADDITIONAL REQUIREMENTS

The products covered by this standard are [not] breast-milk substitutes and shall [not] be presented as such.

9. METHODS OF ANALYSIS AND SAMPLING

See Codex Alimentarius Volume 13.