

codex alimentarius commission



FOOD AND AGRICULTURE
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Agenda Item 3 (b)

**CX/MMP 02/4
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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON MILK AND MILK PRODUCTS

Fifth Session

Wellington, New Zealand, 8-12 April 2002

PROPOSED DRAFT REVISED STANDARD FOR FERMENTED MILKS PRODUCTS

Including comments at Step 6 submitted in response to CL 2000/15-GEN and IDF report

(Prepared by International Dairy Federation)

Governments and interested international organisations are invited to comment on the attached proposed draft standard for fermented milks. Comments should be sent to:

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with a copy to the Secretary, Codex Alimentarius Commission, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, **not later than 1 March 2002.**

INTRODUCTION

At the 4th Session of the CCMMP (May 2000), the Committee requested the IDF to redraft the Draft Standard for Fermented Milk, taking into consideration the discussions during, written comments submitted to, and oral comments made at the Session, and comments submitted at Step 6 after the adoption by the Executive Committee, with a view to the consideration of a revised text at the next Session. (par. 73 of ALINORM 01/11).

This report discusses the comments made at the various steps as described above and provides recommendations for consideration at the 5th Session of the CCMMP. The recommendations have been implemented in the Draft Standard published as Appendix VI to ALINORM 01/11, and the redraft is appended to this report.

The following principles have been applied:

1. The review has been done in light of written comments submitted to the 4th Session¹, oral comments made at and conclusion of the 4th Session², and written comments submitted at Step 5³ and Step 6⁴

¹ CX/MMP 00/9, Adds 1, 3 and 4 and CRD 8 tabled at the 4th Session of the CCMMP.

² ALINORM 01/11, par.s 61-73

³ CX/EXEC 00/47/9-Add.s 2 and 3

⁴ Comments to CL 2000/15-GEN by Argentina, Canada, France, Italy and United States.

2. Each written comment submitted has been examined individually.
3. The general approach used has been that a Government comment is accepted unless proper technological, scientific, editorial or similar arguments make it advisable not to follow it or to amend it or the CCMMP or another Codex body has not already decided on the matter.
4. Where Governments have expressed different views, possible solutions are provided with the aim of facilitating a decision. They take into account technical justification and/or existing commercial trading practices.
5. Texts put in square brackets by the 4th CCMMP have been retained. However, these texts have been considered in light of the comments made (cf. indent 1 above) and recommendations for confirmation, deletion or amendments thereto are provided. In the redrafted standard (Appended to this report) these recommendations are presented as notes to the current bracketed text.

Abbreviations used in this document:

GSUDT: Draft General Standard for the Use of Dairy Terms (CODEX STAN 206-1999).

GSLPF: General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

REVIEW OF COMMENTS

GENERAL ASPECTS

A) APPROACH TO THE STANDARD

Comments submitted:

Germany expressed doubts whether the Standard facilitates trade as it only represents a part of the market segment, i.e. (i) the limitation of the use of the name yoghurt to traditional yoghurt and (ii) the products that have up to now been on the market in accordance with the existing Standards A-11a and A11b would be eliminated. Mild yoghurt is traded in considerable quantities, whereas it is doubtful whether this is the case with yoghurt, acidophilus milk, kefir and kumys. A well-balanced and trade-oriented Standard would include mild yoghurt and heat-treated yoghurt.

Italy agreed in general with the Proposed standard for fermented milks (A-11) as presented in CX/MMP 00/9, despite some points were not completely acceptable.

New Zealand expressed the opinion that the Standard should cover only the basic product and variations should be covered by general Codex provisions.

Debate at the 4th CCMP:

The Committee agreed with addressing the sub-categories included in CX/MMP 00/9 and, in addition, with the inclusion of Mild Yoghurt and products heat-treated after fermentation.

Recommendation No. 1:

No action required. However, see recommendation with regard to the Mild Yoghurt issue (Recommendation no. 11).

B) ADDITIONAL SUB-CATEGORIES

Comments submitted:

Mexico proposed to establish a separate international standard for lactobacillus milk drink, the argument being that such products are produced in many countries but not all of them have a legislation for this category of products. The main distinction between lactobacillus milk drink and the composite fermented milks described in the Draft Standard would be the omission of the limit for non-dairy ingredients. A document providing technical information including production and trade figures was submitted (Production: >900,000 tons in 16 countries; Exports: > 20,000 tons from 4-5 countries).

Discussion:

Further clarification of the proposal obtained from the delegation of Mexico provided as follows:

- The product in question is a reconstituted skimmed milk powder that is inoculated with lactobacilli and fermented until coagulation, and blended with sweeteners, flavourings and other ingredients (vitamins, cereals, honey and minerals), resulting in a product in which the lactic acid bacteria must be viable in amounts above 10^7 until end of shelf life.
- It contains min. 3.0% solids non fat, min. 1.0% protein.

Although the product identity seems to be close to the identity of a fermented milk, it fails to meet the definition of a milk product or a composite milk product, primarily because of the relative low content of solids not fat and protein. Such low milk solids may be due to either addition of water and/or addition of other non-dairy components to an extent that is beyond the definition of a composite milk product, as defined in section 2.3 of the GSUDT (CODEX STAN 206-1999).

This does not preclude the product from being designated with descriptive terms such as “fermented dairy drink” or similar terms not including the term “milk”, as such designation would be in conformity with the GSLPF (CODEX STAN 1-1985).

A similar product but which would contain solids not fat and protein contents in sufficient amounts to qualify as a composite milk product, is already covered by the standard under section 2.3.

Recommendation No. 2:

No action required. (See also Recommendation no. 20.)

TITLE OF THE STANDARD

Comments submitted:

Romania proposed that already the title of the Standard should include the type of the products it is covering, e.g. that it refers to both “fermented milk” and “heat treated fermented milk”, the objective being to ensure that the two products are differentiated throughout the Standard.

Italy proposed to change the title to “Draft Standard for Fermented Milks and Composite Fermented Milk Products”.

Debate at 4th CCMP:

The Committee agreed that there would be one standard that covered fermented milks provided that the denomination of heat-treated products was appropriately addressed in the labelling section.

Discussion:

The definition of fermented milks (Section 2.1) identifies products heat-treated after fermentation as “fermented milk”. Consequently, the title does already include both products. If they are to be separated in the title, there will be a consequential need to do the same distinguishing in Section 2.1.

The title should be kept as simple as possible. Composite fermented milks are clearly covered by the scope (Section 1) and does therefore not necessarily need to be reflected in the title as well.

Recommendation No.3:

No action required.

SECTION 1 - SCOPE

A) HEAT-TREATED FERMENTED MILK

Comments submitted:

Turkey and **Mexico** did not support the suggestion to delete the previous section that defined “Products obtained from fermented milks heat treated after fermentation”. These countries recommended to re-instate this section because products heat treated after fermentation should be individually defined in order to avoid confusion.

Debate at the 4th CCMP

The Committee agreed that heat-treated products could adequately be addressed in the labelling section, and therefore agreed on the inclusion of these products in the definition of “fermented milks” (Section 2.1).

Recommendation No. 4:

No action required.

B) COMPOSITE FERMENTED MILK PRODUCTS

Comments submitted:

Mexico and **France** supported the inclusion of composite products in the standard, because these products are dominant in international trade and represent the bulk of production in most countries.

Debate at the 4th CCMP:

The Committee agreed to include composite fermented milk products into the Standard.

Recommendation No. 5:

No action required.

SECTION 2 - DESCRIPTION

Section 2.1 – Fermented Milk

A) TRANSLATION INTO SPANISH

Comments submitted:

Argentina made a comment that indicates that the word “specific” has been omitted from the Spanish text.

Recommendation No. 6:

Ensure alignment between the English and Spanish versions. Note that Rec. no. 12 recommends the use of the term “suitable” to replace “specific”.

B) STAGE AT WHICH THE MICROBIOLOGICAL MINIMUM COUNT APPLIES**Comments submitted:**

Argentina supported a description, which provides for the presence of specific bacilli until the date of minimum durability.

Canada expressed opposition against the viable count for fermented milks be valid until the end of the shelf life of the product.

France supported a description, which provides for the presence of specific bacilli until the sell-by date.

Spain stated that among the three alternatives listed in Appendix VII to ALINORM 01/11, the most appropriate would be “point of sale to the final consumer”.

United States recommended “at the time when the product leaves the manufacturer”.

Debate at the 4th CCMMP:

The Committee generally agreed that it would be impossible to control microbial counts at the time of consumption and to include the following three options in square brackets:

- at the point of sale to the consumer; and
- at the time when the product leaves the manufacturer.
- at the date of minimum durability;

The Committee noted that it should be the responsibility of manufacturers to undertake shelf-life tests.

Discussion:

Re: “At the point of sale to the consumer”:

It is unclear whether the “point of sale” means the date of sale or the place where the consumer obtains the product. It is assumed that the meaning is that reference is made to the date of sale.

This option is not significantly different from the minimum durability. It has a major disadvantage, namely that verification can only be done at retail level, as the date of sale is not known by anybody before it happens.

Re: “When the product leaves the manufacturer”:

The main argumentation supporting this option is that it is clear that verification of compliance is to be carried out on the freshly made product, and by the manufacturer. Thereby, any potential of abuse of the storage conditions specified need not be taken into account.

However, testing on the freshly made product can verify that the microorganisms are abundant in numbers and viable, but not that they will stay active. To verify preservation of activity, some time of storage is needed. They may die out very quickly, for instance, if preservatives are added to extend the shelf life.

It should be noted that the option would be useless in connection with trade, including international trade.

Re: “To the date of minimum durability”:

This option implies that during the entire time of durability stated by the producer the microbial criteria as defined in Table 3.3 are valid. Consequently, when establishing the shelf life, the development of the specific microorganisms within the product need to be taken into account.

Normally, identity standards apply whenever the products are subject to sale. For instance, moisture content in milk powder, minimum fat content in cream applies throughout shelf life and not only at the point of manufacture. Fermented milks are not different in this respect. Consequently, it would be consistent with all other identity standards that the criteria apply as long as the product is subject to sale. That corresponds to “end of durability”. In fact, this would also be the case if nothing was mentioned in the standard in this respect.

The main argumentation against this option is that it is unclear whether verification of compliance is to be carried out at the point of consumption, and by whom. It presents unclarity with respect to the responsibilities of the manufacturer concerning any potential abuse of the storage conditions specified.

In those countries, where such a requirement already exists, verification of compliance is done by the manufacturer through testing the product at the end of the stated durability, after storage at the dairy plant at those conditions specified in the labelling.

If this option is chosen, it would therefore be appropriate to specify in the Standard the method of verifying compliance.

Reference to minimum durability is particularly relevant where the consumers expect that the product has an impact on their intestinal microflora. This may not be the case on all markets.

Conclusion

The option on “point of sale” is not feasible, mainly due to difficulties in verifying compliance. This option should not be considered further

It would be consistent with all other identity standards that the criteria apply as long as the product is subject to sale. That corresponds to “end of durability”. In fact, this would also be the case if nothing was mentioned in the standard in this respect.

Any practical consequential difficulties with this principle should be addressed in part 3.3 of the standard, as follows:

- The microbiological criteria need to be established at such levels that they are practically achievable with reasonable shelf lives (see discussion leading to Recommendation no. 22).
- The method of verifying compliance with the requirement should be included.

Recommendation No. 7:

Adopt the wording “at the date of minimum durability” and include the following statement:

“Compliance with the microbiological criteria specified above is to be verified by the manufacturer through analytical testing of the product on “the date of minimum durability” after the product has been stored under the responsibility of the manufacturer and at the storage conditions specified in the labeling.”

C) DRINKABLE PRODUCTS

Comments submitted:

Japan proposed to modify the description of fermented milks by replacing “Fermented Milk is ... in the reduction of pH and coagulation.” with “Fermented Milk is ... in the reduction of pH **and/or** coagulation”. A similar proposal has been also submitted by **Mexico**.

Discussion:

The proposal intends to ensure that pH may be reduced without coagulation being achieved, which may be the case in some mild products, primarily fermented milk drinks. The proposal is considered reasonable, as fermented milks in some countries are produced without visible coagulation, and as section 3.1 on raw materials allows for changes in the ratio of casein to whey protein to a degree that, in spite of pH reduction, no visible coagulation occurs. The change has impact on the criteria on minimum lactic acid content (see Recommendation no. 21.)

Recommendation No. 8:

Replace “pH and coagulation” with “pH with or without coagulation”.

D) OPTIONAL MICROORGANISMS

Comments submitted:

The **Czech Republic** requested that the possibility to add other lactic acid bacteria to “acidophilus milk” was explicitly mentioned. Products "Acidophilus milk" should consist except micro-organism *Lactobacillus acidophilus* also mesophilic culture (starter). It is necessary for the quality of product for the consumers (taste according the acidity).

Thailand proposed that the use of other harmless and optional Lactic acid bacteria in Drinking yoghurt should be permitted other than specific microorganisms *Streptococcus thermophilus* and *Lactobacillus delbrueckii subsp. bulgaricus*.

France supported the possibility of optional addition of other culture.

Spain expressed the opinion that the addition of other cultures should be limited and proposed the following new wording: “In addition to the specific cultures of fermented milks mentioned above, other cultures can be added to fermented milks in quantities that do not alter their characteristics.”

Discussion:

The Draft Standard allows the addition of “other cultures than those specified in the description of the specific fermented milks”. Since many delegations still make requests in this direction, the text already included may not be sufficiently clear on this point.

Recommendation No. 9:

Rewording of 2.1 Fermented Milk, para 3 as follows

“Other microorganisms than those constituting the specific starter culture(s) specified above may be added.”

See also Recommendation no. 26.

E) HEAT TREATMENT OF MILK PRIOR TO FERMENTATION

Comments submitted:

Switzerland suggested to include the heat treatment of the milk prior to fermentation in this section by adding “Fermented milk is a milk product obtained by fermentation of heat treated milk...”

Discussion:

The heat treatment of milk prior to fermentation is a general practice and there would be no practical difficulties associated with adoption of the proposal.

However, reference to a particular control measure to ensure food safety should be made in Section 6 of the Standard, unless pasteurization is part of the identity of fermented milks. As the heat treatment does not seem to be part of the identity, the suggestion should be considered within the context of Section 6.

In 1997, the CAC adopted a standard wording for Section 6 to be included in all milk product standards. The CAC text emphasizes that any milk product should be subjected to “a combination of control measures from raw material production to the point of consumption, which may include pasteurization”. The Swiss suggestion could, if so wished, be accommodated by changing the word “may” into “should”.

Adoption of the Swiss proposal would rule out alternative technologies that may render the milk used as sufficiently safe. Further, it would be a deviation from the CAC wording, which would trigger endorsement by the CCFH.

It is assumed that the issue is not sufficient important to trigger such a procedure.

Recommendation No. 10:

No action required.

F) MILD YOGHURT

Comments submitted:

Argentina suggested compositional criteria for mild yoghurt as follows: min. 2.8% milk protein; measurable acidity (to be stated); total amount of specific microorganisms of 10^7 and min. 10^6 of labelled organisms.

The **Czech Republic** expressed the opinion that mild yoghurt should contain the specific yoghurt microorganisms *Streptococcus thermophilus* and *Lactobacillus delbrueckii subsp. bulgaricus* only, since it is

possible to influence the acid taste by technological means. The Czech translation of the term “mild yoghurt” would be confusing for the consumer.

Germany and United Kingdom requested the inclusion of “mild yoghurt” as a new defined category of fermented milks.

Germany suggested the following definition: “Mild Yoghurt: Cultures of *Streptococcus thermophilus* and other lactobacilli than *Lactobacillus delbrueckii* subsp. *Bulgaricus*”.

Denmark and Italy expressed opposition against the inclusion of mild yoghurt as the definition proposed is a deviation of the consolidated yogurt definition. The absence of one of the specific microorganisms in a product using the name “yoghurt” is not in conformity with the labelling principles of Codex, in particular as the missing organism (*Bulgaricus*) is the one that adds most to the flavour and identity of yoghurt.

Italy further stated, that the term “Mild” is an adjective like “less acid”, “bland”, “strong”, “sweet”, etc., therefore it is not a term to define a food product.

Denmark further stated that cultures resulting in milder products but containing both organisms are commercially available and emphasized that, if a specific definition for “mild yoghurt” is included, such a definition must not exclude “mild yoghurt” with both organisms. Denmark suggested two alternative solutions as follows:

1. To address this product in an Annex to the Standard, e.g. as follows:

Preamble: The Annex to this Standard contains provisions which are not intended to be applied within the meaning of the acceptance provisions of Section 4.A(I)(b) of the General Principles of the Codex Alimentarius.

*Annex: Notwithstanding the definition in Section 2.1 of this Standard and where specifically allowed by the legislation of the country of retail sale, the name Yoghurt may be applied for products fermented by cultures of *Streptococcus thermophilus* and any other *Lactobacillus* sp., provided that the consumer is not misled.*

2. The provisions for “mild yoghurt” are supplemented by adequate text emphasizing that the term can only be used in countries, in which specific national legislation so provides and only in accordance with the specific legislation of the particular country.

France stated that it is indispensable that the term “mild” can also be used to complement the name of traditional yoghurt, i.e. containing the two traditional microorganisms *Str. thermophilus* and *Lb. bulgaricus*.

Japan supported the establishment of a new category of mild yoghurt and proposes that the specific micro-organism(s) that characterise Mild Yoghurt should be determined through further discussion because there seems to be some bacterial species other than *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *Bulgaricus* that produce a milder taste.

Romania supported that “mild yoghurt” denomination is included into yoghurt definition.

Sweden was of the opinion that mild yoghurt should be included in the Draft Standard only if it complies with the generic definition of “yoghurt”, in order to avoid the misleading of consumers in their country.

Debate at the 4th CCMP:

The Committee agreed to include the term “mild yoghurt” in section 2. As the Committee could not consider the definition of “mild yoghurt” thoroughly due to time constraints, it decided to place the tentative definition as follows in square brackets: “[Cultures of *Streptococcus thermophilus* and other Lactobacilli other than *Lactobacillus delbrueckii* subsp. *Bulgaricus*]”. The Committee noted that this definition would need to be further developed.

Discussion:

The latter comment of Denmark recognizes a significant issue also highlighted in the technical information concerning “mild yoghurt” submitted by IDF to the 4th Session of the CCMP. This information referenced the fact that products achieving a milder taste could be the result of either:

Culturing with *Streptococcus thermophilus* and selected (milder) strains of *Lactobacillus delbrueckii* subsp. *Bulgaricus*, or

Culturing with *Streptococcus thermophilus* and any *Lactobacillus* sp. other than *Lactobacillus delbrueckii* subsp. *Bulgaricus*.

In both cases, a deliberate decision is taken by the manufacturer to select cultures that will result in a milder tasting product. However, according to the current level of professional knowledge, it is not possible to identify and/or quantify any metabolites resulting from the fermentation of lactose by specific cultures which can be associated directly with use of the term “mild”. As a result, it is also not possible to more fully develop a technical definition exclusive to the term “mild yoghurt”.

It has been found to be more appropriate to differentiate more broadly within the yogurt category according to the composition of the starter culture. Therefore, it is reasonable to recognize products within the yoghurt category which result from the fermentation of milk by both *Streptococcus thermophilus* and any *Lactobacilli*. Implementation of this concept is accomplished by replacing the term “mild yoghurt” with “culture-modified yoghurt” for classification purposes. “Culture-modified yoghurt” is a technical term not intended as a designation in the labelling of the food.

Such differentiation within Section 2 should be supported by suitable labelling linked directly to the effect on the finished product caused by the selection of specific cultures of the genus *Lactobacillus* in conjunction with *S. thermophilus*. To provide guidance for the naming of culture-modified yoghurts, a new section in Section 7.1.1 is needed with the objectives of :

- Mandating the use of a non-misleading qualifier
- Ensuring that such qualifier is related to the changes resulting from the choice of *Lactobacillus* species.

Recommendation No. 11:

In Section 2.1, replace reference to mild yoghurt and its tentative definition with the following

“Culture-modified yoghurt: Cultures of Streptococcus thermophilus and any Lactobacillus species”

In Section 7.1.1, insert the following:

“Culture-modified yoghurt” as defined in Section 2 shall be named through the use of an appropriate qualifier in conjunction with the word “yoghurt”. The chosen qualifier shall describe, in a way that is accurate and not misleading to the consumer, the nature of the change imparted to the yoghurt through the selection of the specific Lactobacilli in the culture for manufacturing the product. Such change may include a marked difference in the fermentation organisms, metabolites and/or sensory properties of the product when compared to the product designated solely as “yoghurt”. Examples of qualifiers which describe differences in sensory properties include terms such as “mild” or “tangy”. The term “culture-modified yoghurt” shall not apply as a designation”.

Culture-modified yoghurt should comply with the other compositional requirements as for yoghurt.

G) HEAT-TREATED FERMENTED MILKS

Comments submitted:

Germany: Since the category of heat-treated fermented milks is mentioned in Section 1 these products should be clearly defined in Section 2. Description.

Romania: Products obtained from fermented milks heat-treated after fermentation should be individually defined in order to avoid confusion.

Debate at 4th CCMP:

The Committee agreed that heat-treated products could adequately be addressed in the labelling section, and therefore agreed on the inclusion of these products in the definition of “fermented milks” (Section 2.1).

Discussion:

Heat treated fermented milks mentioned in the Scope are, however, not included in the description. Consequently the 2.1 Description should be completed. As a consequence, the phrase “if the product is not heat treated after fermentation” becomes redundant.

Recommendation No. 12:

Taking into account Recommendations no. 6, 7 and 8 as well, reword Section 2.1. Fermented milk, para. 1 as follows:

“Fermented Milk is a milk product obtained by fermentation of milk, which milk may have been manufactured from products obtained from milk with or without compositional modification as limited by the provision in Section 3.3, by the action of suitable microorganisms and resulting in reduction of pH with or without coagulation. These starter microorganisms shall be viable, active and abundant in the product to the date of minimum durability. If the product is heat-treated after fermentation the requirement for viable microorganisms does not apply.

Certain Fermented Milks are characterized by specific starter culture(s) used for fermentation as follows:”

H) OTHER ISSUES

Comments submitted:

Germany: The wording “milk ... manufactured from products obtained from milk” is not compatible with the definition of milk in 2.1 of the GSUDT.

Discussion:

The concern would only be a problem if the term “fermented milk” was not defined, i.e. by the Codex Standard. Section 4.3.1 of the GSUDT provides the legal basis for using the term “milk” in the name of a product regulated by a Codex Standard for a milk product. If no Codex Standard for Fermented Milks was established, the term would be a descriptive term and the German concern would be valid.

Recommendation No. 13:

No action required.

Section 2.2 - Concentrated Products

Comments submitted:

Denmark and **Argentina** requested the deletion of square brackets around the figure 5.6%.

Mexico suggested the inclusion of a description of the products Stragisto, Labneh, Ymer, Ylette for clarification.

Discussion:

Mexican comment: These names are provided as examples, only, and are well known in the countries of production. There is no need to define them further in the Standard.

Recommendation No. 14:

Remove the square brackets around 5.6%

Section 2.3 -Composite Fermented Milk Products

Comments submitted:

Denmark, Japan, Mexico, and the United Kingdom suggested the deletion of the 30% limit for non dairy products which would mean that the provisions in the GSUDT would apply.

Denmark preferred that, in the case that composite products were included, they should be categorized as “flavoured fermented milks”. Further, there should be no restrictions concerning the type of flavourings that could be added other than already provided for by the GSUDT.

Mexico expressed the opinion that compound products, being of high national specificity and are traded internationally, should be added to the Standard.

Spain and Thailand suggested increasing the limit to max. 50%.

Switzerland, Argentina and Italy expressed the opinion that the limit should be max. 30%.

United States suggested to increase the limit to 50% (w/w).

Debate at the 4th CCMMP:

The Committee agreed to include composite fermented milks in the standard; however, all options with regard to limitations of non-dairy ingredients were inserted in square brackets.

Discussion:

The Danish suggestion with regard to name of the category and type of non-dairy ingredients should be followed. This would require a slight amendment of the definition to include a reference to the definition of “composite milk products”, as provided in the GSUDT.

Limitations on non-dairy ingredients outside those necessary to guarantee the appropriate usage of the term “yoghurt” as provided in the GSUDT will not ensure sufficient intake of microorganisms for any potential health benefits. Such intake is also a function of serving size, other factors related to consumption behavior (e.g., number of servings), and specified microorganism counts in the final product.

It is, therefore, recommended to specify a maximum limit of non-dairy ingredients of less than 50% in order to take into account existing national legislation and market conditions and to provide guidance on the application of the GSUDT in the case of fermented milks.

Recommendation no. 15:

Change the category name into “flavoured fermented milks” and include a reference to the definition of “composite milk product” as defined in GSUDT.

Further, establish the maximum limit of non-dairy ingredients to “less than 50%”.

Section 3 - ESSENTIAL COMPOSITION AND QUALITY FACTORS**Section 3.2 - Permitted Ingredients****A) GELATIN AND STARCH****Comments submitted:**

Canada and **New Zealand** supported the inclusion of starch and gelatin in the list of permitted ingredients for both plain and composite fermented milk products.

France expressed the opinion that for starch and gelatin the limit of 5g/kg of finished product should be set because this amount is sufficient to obtain the desired texturing effect.

Discussion:

The justification for the use of gelatine and starch is the same as for stabilizers. If stabilizers are not permitted for plain products (due to lack of justification), then there would similarly be no justification for using gelatine and starch.

With regard to a possible limitation, reference is made to the standard for unripened cheeses, in which the following provision has already been adopted by the CCMMP:

“Gelatin and starches: Notwithstanding the provisions in the Codex Standard for Cheese (A-6), these substances can be used in the same function as stabilizers, provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice taking into account any use of the stabilisers/thickeners listed in section 4”.

A similar approach could be taken in this case as well.

Recommendation No. 16:

Amend the existing draft provision for gelatin and starch into the following:

“Gelatin and starches can be used in the same function as stabilizers, provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice taking into account any use of the stabilizers/thickeners listed in section 4. These substances may be added either before or after adding the flavourings”.

B) FLAVOURINGS**Comments submitted:**

Mexico requested the inclusion of “flavourings identical to natural”

Romania suggested to include the list of non-dairy ingredients of 2.3 *Composite fermented milk products* into 3.2. *Permitted ingredients*.

Argentina proposed to have the same wording for “flavouring foods” in 3.2 Permitted Ingredients as in 2.3 Composite Fermented Milks.

Discussion:

Flavourings identical to natural are already included in the definition of Flavoured Fermented Milks (Section 2.3). However, there should be similarity between references to flavourings in the definition of composite products and in the permitted ingredients section.

Recommendation No. 17:

Rewording of 3.2 Permitted Ingredients, last point as follows:

“Non-dairy ingredients as listed in Section 2.3 (Flavoured Fermented Milks)

C) NUTRITIONAL SUBSTANCES

Comments submitted:

Japan proposed to include “enriching nutritional agents”.

United Kingdom proposed the inclusion of vitamins and minerals in the list of permitted ingredients.

Discussion:

Vitamins and minerals fortified fermented milk products are produced in several countries and not permitted in others. However, this is the case with many other milk products as well, but vitamins and minerals are not listed in any other standards.

The Codex General Principles for the Addition of Essential Nutrients to Foods recommend that fortification should be the responsibility of national authorities (CAC/GL 09-1987, section 6.1). It is not appropriate, therefore, to allow for fortification with vitamins and minerals in an international standard for fermented milks.

Recommendation No. 18:

No action required.

Section 3.3 - Composition

a. Presentation of the table

Comments submitted:

Spain proposed an editorial simplification of the existing table 3.3 *Composition* with the following:

	Fermented milks	Kefir	Kumys	Mild Yoghurt
Milk protein. Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined (%w/w)	min. 2.8%			To be developed
Titrate acidity, expressed as % lactic acid (% w/w)	min. 0.6%			
Sum of specific microorganisms defined in section 2.1 (cfu/g, total)	min 10 ⁷			
Labelled additional microorganisms (optional) (cfu/g, total)	min. 10 ⁶			
Ethanol (% vol./w)			Min. 0.5%	
Yeasts (cfu/g)		min. 10 ⁴		

Discussion:

The table can be simplified by (i) merging the column specifying the criteria for “yoghurt, culture-modified yoghurt and acidophilus milk” and the subsequent column for products with additional microorganisms, respectively and by (ii) specifying the min. microbial count for labelled microorganisms in the column for fermented milk as well.

Since the microorganisms for Fermented Milk in Table 3.3 are not specified the 3rd line in Table 3.3 Composition should be more general and the 4th line adjusted to the wording in 2.1 Fermented Milk para 3.

Recommendation No. 19:

Rewording of references to microorganisms as follows:

- “Sum of microorganisms constituting the starter culture defined in section 2.1 (cfu/g, in total)”
- “Labelled microorganisms”

An explanatory note to the latter is suggested in Recommendation no. 26.

A simplified presentation of the table is provided in the revised Standard.

B) PROTEIN CONTENT**Comments submitted:**

Mexico proposed to reduce the minimum of 2.8% protein to 2.7% for the following reasons:

1. It has been established that fermented milk contains more than 8.0% solid non-fat content (SNF). This SNF is obtained by multiplying the quantity of milk protein by 2.8 (result of the multiplication, by 6.38 of the value of nitrogen obtained by the Kjeldahl method). According to this operation, the milk protein within the SNF is calculated as follows: $1 / 2.82 \times 100 = 35.46(\%)$.
2. On the other hand, if the SNF milk protein is fixed at 34%, 8% of the SNF turns out as follows: $8.0 \times 0.34 = 2.72 (\%)$.
3. Due consideration should also be given to the fact that, depending on the type of food, and depending on the breed of animal from which the milk is obtained, the seasonal changes and the region or country, as well as the environment, there are slight changes in proteins.
4. It should also be taken into account the market of yoghurt drinks there are various types that contain the 2.8% of protein set in the draft Codex, and are considered as yoghurt in Mexico.

Recommendation No. 20:

Adopt the proposal to reduce the minimum milk protein content to 2.7%.

C) LACTIC ACID CONTENT**Comments submitted:**

Italy proposed to increase the titrable acidity for yoghurt to 0.7%. This is the minimum percentage that guarantees that the symbiotic growth process of the two specific micro-organisms has occurred regularly. This has to be demonstrated by the development of L(+) and D(-) lactic acid.

Japan proposed the deletion of min. 0.6% lactic acid because such products are marketed in several countries.

Mexico proposed to reduce the minimum lactic acid content from 0.6% to 0.3%, arguing that low acidity fermented milks have a lactic acid content in the mentioned range.

Discussion:

0.6% lactic acid corresponds to the achievement of the iso-electric point of milk protein and is therefore a measure that can be used to verify that coagulation has occurred. However, due to the recommended amendment with regard to coagulation (see Recommendation no. 8), the minimum acidity for fermented milks (non-specific) should be changed into 0.5%.

Recommendation No. 21:

In the first column (“fermented milks”), amend titratable acidity into 0,5% lactic acid.

D) SPECIFIC MICROORGANISMS TOTAL NUMBER - GENERAL**Comments submitted:**

Canada proposed to reduce the minimum from 10^7 cfu/g to 10^6 cfu/g.

Debate at the 4th CCMP:

The Committee considered the total counts of microorganisms specific to individual products covered in the Standard. Some delegations proposed that the minimum count should be reduced to 10^6 cfu/g if they were to be determined at the date of minimum durability.

The Committee did not make any conclusions.

Discussion:

From a microbiological point of view, the proposal should not be followed. When fermentation is initiated, the amount of starter bacteria added already yields concentrations of 10^6 or higher. As this standard defines the products as being subject to microbiological fermentation by these starter cultures, growth from the initial concentrations is necessary. Verification of the requirement that fermentation has taken place through microbial activity can only be achieved, if limits higher than 10^6 apply. After fermentation, the concentration will be in the area of 10^9 . A criteria of 10^7 allows for 2 log reduction during shelf life. Appropriate storage conditions will ensure that reductions do not occur to that extent. In most cases, the microbial count is maintained or only slightly declining during storage.

Recommendation No. 22:

No change.

E) SPECIFIC MICROORGANISMS TOTAL NUMBER - YOGHURT

Comments submitted:

Italy proposed that for yoghurt the following precision should be made regarding the specific microorganisms: "On the total of 10^7 cfu/g one of the two specific microorganisms which is present at lower levels should not be less than 10^6 cfu/g." E.g. cfu/g in total = 10^7 , where *S. thermophilus* 10^7 cfu/g and *L. delbrueckii* subsp. *Bulgaricus* 10^6 cfu/g.

Canada points to the fact that in "frozen yoghurt", a commonly produced product in Canada, the microbiological requirements defined for yoghurt cannot be met due to freezing. A possibility to solve this problem would be to define the product in Section 7.1 *Name of the Food*. Regarding the viable count in the final product, a solution would be to apply the requirements for yoghurt before freezing.

Debate at the 4th CCMMP:

The Committee considered the total counts of microorganisms specific to individual products covered in the Standard. Some delegations proposed that the minimum count should be reduced to 10^6 cfu/g if they were to be determined at the date of minimum durability. Some other delegations requested that in addition to the minimum counts of the sum of *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *Bulgaricus* in yoghurt, separate minimum counts should be developed for individual microorganisms.

The Delegation of Italy was requested to submit scientific data to justify the establishment of separate minimum counts for the next redrafting.

Scientific justification provided by Italy:

During the fermentation of milk, the specific microorganisms develop in an obligate symbiotic relationship. Although they can proliferate independently, by utilising mutual metabolites the effect of producing lactic acid is remarkable enhanced.

L. delbrueckii subsp. *bulgaricus* grows in milk using riboflavin, amino-acids and vitamin B₁₂ for proliferation and utilises lactose as energy source by transforming it into lactic acid. *S. thermophilus* produces apart from lactic acid also formic acid, CO₂ from urea, folic acid, acetaldehyde, acetone and diacetyl while using amino acids, vitamins of the B group, adenine, guanine, uracile and xanthine. The symbiotic relationship of these two lactic acid bacteria (LAB) is already established during the preparation of starter culture for the production of yoghurt.

In yoghurt production, the amount of liquid inoculum added to milk must be between 0.5 and 5% containing the specific microorganisms in symbiosis. Since the inoculum contains about 500 million of LAB/ml, one millilitre of inoculated milk contains already between 2.5 and 25 million LAB/ml.

At the beginning of fermentation *S. thermophilus* starts to proliferate before *L. delbrueckii* subsp. *bulgaricus* and produces CO₂ from urea and formic acid which are necessary for the biosynthesis of some cellular components (aspartate and adenine) of lactobacilli which stimulate the proliferation. In turn, *Lactobacillus* releases amino-acids in milk which are necessary for the consecutive development of *S. thermophilus*. The reciprocal growth stimulation results in an acceleration of the fermentation of lactose and, consequently, the production of lactic acid.

Thus, the rate of acid increase is greater when the two microorganisms are grown together (in symbiosis) compared to the milk fermentation with single strains. The reciprocal stimulation has also an influence on the production of aroma components during the fermentation

The fermentation takes place at 40-45 °C with an incubation time of about 6-7 hours, during which the LAB multiply to around 10^8 - 10^9 cfu/g. Cooling to 4-6 °C assures the survival and vitality of the LAB and the activity of metabolites in yoghurt during shelf-life.

Each of the specific microorganism can only develop in accordance with a normal growth curve, when its count in the inoculated milk is at least 10^6 cfu/ml, This lower limit is sufficient to prevent the domination of non-lactic microflora present in milk (usually 10^5 cfu/ml), thus ensuring an undisturbed fermentation process. In case where condition necessary for symbiosis are lacking, the resulting product no longer complies with the definition of yoghurt

By specifying in Table 3.3 not only the “total of specific microorganisms” but by including also the minimum level of the specific microorganism present in lower count (either *S. thermophilus* or *L. delbrueckii* subsp. *bulgaricus*) would indicate that the fermentation process took place as a result of the growth of both specific microorganisms in symbiosis and following the appropriate technological process. Only such a product qualifies to be named yoghurt according to the Codex standard definition. In addition, it assures the significant beneficial health effect indicated in the scientific literature both for *S. thermophilus* and *L. delbrueckii* subsp. *bulgaricus* (lactose intolerance subjects, immunological effects etc.)

From the point of view of quality control, the enumeration of the two specific LAB in yoghurt means no additional work since according FIL-IDF Standard 117A:1998 (*Yogurt: enumeration of characteristic microorganisms . Colony Count Technique at 37 °C. Joint IDF/ISO Standard*) the specific microorganisms in yoghurt are anyway determined with different selective media . In fact the total number of characteristic microorganisms in yoghurt is given by the sum of the separate count of *L. delbrueckii* subsp. *bulgaricus* and *S. thermophilus*.

Discussion:

Symbiotic growth applies only during fermentation (first 2-4 hours) and the result of the specific metabolites, e.g. D- and L- lactic acid is not quantified by the draft standard. Consequently, the establishing of additional criteria as suggested is not justified.

The Canadian comment on “frozen yoghurt” is considered in Recommendation no. 31.

Recommendation No. 23:

No change needed.

F) SPECIFIC MICROORGANISMS TOTAL NUMBER - ACIDOPHILUS

Comments submitted:

The **United States** suggested that the viable count of *Lactobacillus acidophilus* should be 10^6 cfu/g.

The **Czech Republic** and **Italy** suggested completing its proposal concerning Acidophilus milk in para 2.1 with inclusion in para 3.3 of *Lactobacillus acidophilus* min. 10^6 and with *Streptococcus* min. 10^7 during durability.

Discussion:

This question relates to Acidophilus milk. Where *Lb. acidophilus* is the fermenting organism, the min. count should, from a microbiological point of view, be the same as for other fermented milks (see discussion leading to Recommendation no. 22).

Recommendation No. 24:

No change needed.

G) SPECIFIC MICROORGANISMS TOTAL NUMBER - KEFIR

Comments submitted:

Romania suggested changing the min. count for yeast in Kefir to 10^4 .

Discussion:

The figure suggested is the same as already given in the draft.

Recommendation No. 25:

No action required

H) SPECIFIC MICROORGANISMS TOTAL NUMBER - OPTIONAL CULTURES**Comments submitted:**

The **Czech Republic** and **United States** suggested that the viable count for additional labelled micro-organisms should be min 10^4 during durability. This means e.g. specific micro-organisms for yoghurt min. 10^7 and additional min. 10^4 respecting taste of products and durability of this additional micro-organisms (Bifidobacteriens).

United Kingdom refused setting an arbitrary figure for the level of labelled additional microorganisms. The argument being that the figures in the Draft Standard may not be appropriate for other new microorganisms that may be used in future functional fermented milks.

Discussion:

Optional cultures are added and labelled because they provide additional values to the consumer. Optional cultures are most often labelled as content claims. As a claim should not be misleading and 10^6 cfu/g is already the lowest possible number to imply that particular characteristics has been added to the product, a reduction of that value would result in misleading the consumer. Reference is made to Codex General Guidelines on Claims (CAC/GL 1-1979 (Rev. 1-1991)).

Recommendation No. 26:

No action required, however, and explanatory note may be advisable, e.g. as follows:

“^b Applies where a content claim is made in the labelling that refers to the presence of a specific microorganism (other than those specified in section 2.1 for the product concerned) that has been added as a supplement to the specific starter culture.”

i. Fat content**Comments submitted:**

France proposed to include the level of maximum 10% fat for fermented milks in order to be able to distinguish fermented milks from fermented cream.

Discussion:

As fermented creams are defined as products similar to fermented milk but with a higher fat content, the inclusion of a maximum fat content in this Standard would provide full clarity with regard to coverage. However, the maximum level specified should be “less than 10%” to avoid overlap.

Recommendation No. 27:

Include for all products, a maximum milk fat content of “less than 10%”.

J) STATEMENT BELOW THE COMPOSITIONAL TABLE**Comments submitted:**

United States suggested that the microbiological criteria defined in table 3.3 *Composition* should not be valid up to the date of minimum durability but “on the date that the product leaves the control of manufacturer.”

Uruguay proposed the following editorial change: “... apply to the fermented milk part. The microbiological criteria...”

Recommendation No. 28:

Adopt the editorial change suggested by Uruguay. See also Rec. no. 7.

Section 4 - FOOD ADDITIVES

Comments submitted:

Argentina agreed with the function of additives: Colorants, acidifiers, modified starches, stabilizers, thickeners, sweeteners. For the remaining functions, we suggest using the criteria adopted by the Codex Alimentarius for the technological justification, assignment and specification of concision of the use of additives.

In the particular case of preservatives, we consider that in applying the afore-expounded criteria, it would not be necessary to use them to make fermented milks under a system of Good Manufacturing Practice.

Denmark and Italy agreed that no additives are needed for plain fermented milks.

The U.S. recommended allowing the use of the following classes of additives in plain fermented milks: Modified Starches, Firming agents, Gelling agents, Stabilizers, and Thickeners

Uruguay proposed that additives should be also accepted for skimmed fermented milks.

Discussion:

To obtain a better clarity with respect to which additives are permitted for which categories of products, Section 4 should be introduced by a table that provides an overview of functional classes of additives versus categories of products. Listing all necessary individual additives belonging to each additive class should follow this table.

The following principles have been used for identified the additives needed:

- Functional classes of additives that are technologically justified should be indicated for each product category. With regard to technological justification for the use of additives, these are justified due to:
 - (i) Addition of flavouring ingredients, as follows:
 - colours to support the colour effect of the flavourings added
 - sweeteners to replace sugars in sweetened products
 - anticaking agents and firming agents, in particular when cereal based flavourings are added
 - emulsifiers to stabilize the emulsion of oil-in-water between the plain part and the flavouring ingredients, in particular when the raw materials for the plain part is prepared by recombination.
 - flavour enhancers to support the intended flavour
 - (ii) Heat treatment after fermentation, as follows:
 - *acids and acidity regulators to increase heat stability of milk protein under acid conditions and to stabilize the product during storage and distribution*
 - stabilizers (including modified starches) to ensure a stable product during storage and distribution (extended durability)
 - thickeners to improve texture of the heat treated product
 - preservatives and packaging gases to assist in maintaining quality throughout durability, in particular to control mold growth
- Individual additives belonging to each class that have been subject to evaluation by JECFA and that are used, should be listed class by class
- Additives which have been added to the flavouring ingredients and which have no function in the end product (flavoured fermented milk) may be present as a carry-over in accordance with Section 4.1 of the preamble to the GSFA (CODEX STAN 192-1995 (Rev. 2-1999). These additives need not be listed.

Recommendation No. 29:

- 1) Adopt the overview of technologically justified additive classes for each product category (see appended revised Draft Standard). The table identifies functional classes of additives that are justified for the product categories specified.
- 2) Adopt the lists of individual additives identified under each of these functional additive classes (see appended revised Draft Standard).
- 3) Adopt a statement that makes reference to the carry-over principle of additives used in the flavouring ingredients
- 4) Treat any additional requests for additional functional additive classes and individual additives submitted in writing prior to the 5th Session of the CCMMP as follows:

- Requested additives to which no numerical ADI have been allocated should be included, provided they fall under one of the functional classes listed in the table; Specific justification for the inclusion is not needed.
- Any requests for inclusion of individual additives with numerical ADI-values specified shall be justified individually by the requestor as to why they should be permitted and at which maximum level addition is required.
- Requests for insertion of additional functional classes shall be fully technologically justified as a class by the requestor (class by class).

Section 7 - LABELLING

Section 7.1 - Name of the Food

A) SECTION 7.1.1 – 1st PARAGRAPH (GENERIC NAMES)

Comments submitted:

Canada supported the proposed wording in CX/MMP 00/9.

Germany: The name “fermented milks” has to be reviewed as according to the definitions in 2.1 and 2.2 of the General Standard for the Use of Dairy Terms (GSUDT) a milk product is referred to and not milk. Also, the plural form “milks” is misleading.

Uruguay proposed that the Spanish version of 7.1.1. should read “concentrated fermented milk”

Discussion:

The German concern is addressed in the discussion leading to Recommendation no. 13.

Recommendation No. 30:

No action required. However, the Spanish translation should be verified and amended as necessary.

B) SECTION 7.1.1 – 2nd PARAGRAPH (SPECIFIC NAMES)

Comments submitted:

Canada pointed out that the current description of “yoghurt” would not recognize the product named “frozen yoghurt” unless the requirements for using the term were met.

Uruguay suggested that it should read “Yoghurt may be **spelled** as appropriate in the country of retail sale.”

Discussion:

The amendment proposed by Uruguay was made at the 4th CCMMP.

Frozen yoghurt could be covered by an adequate statement that permits the use of the term “yoghurt” (an other specific names) in connection with the term “frozen” provided:

- that the product submitted to freezing complies with the requirements in this standard
- that specific starter cultures can be reactivated in reasonable numbers by thawing
- that the frozen yoghurt is named as such and is sold for directly consumption, only

Recommendation No. 31:

Include the following paragraph:

“The above specific terms may be used in connection with the term “frozen” provided (i) that the product submitted to freezing complies with the requirements in this Standard, (ii) that the specific starter cultures can be reactivated in reasonable numbers by thawing, and (iii) that the frozen product is named as such and is sold for directly consumption, only.”

c Section 7.1.2 – 4th paragraph (heat-treated products)

Comments submitted:

Argentina suggested to add, right after the paragraph “The products obtained with milk or fermented milks subjected to heat treatment between fermentation are to be called “Fermented milk subjected to heat treatment”,

the following: “as it is not possible to use the terms yoghurt, kefir or kumys to describe the product by replacing “fermented milk”.

Argentina also suggested adding “...the terms yoghurt, kefir or kumys cannot be used in the designation of the product to replace “fermented milk”.

Canada supported the proposed wording in CX/MMP 00/9.

Denmark agreed with the tentative solution discussed at the 4th CCMMP for labelling of products heat treated after fermentation. However, it is of the opinion that editorial changes are needed.

Denmark and **Sweden** proposed to replace the term “Heat treated fermented milk” with the more appropriate “Fermented Milk Heat-Treated after Fermentation” because it is a better descriptive name for such products.

France, Romania and **Uruguay** suggested that it should be explicitly stated that traditional names cannot be used for products heat treated after fermentation. For example, we must not say “heat treated yoghurt” but “heat treated fermented milk.”

France proposed to add “...irrespective of the specific name of the fermented milk from which they are obtained.” For the sake of fair competition, the labelling and sale of a yoghurt (or any other specific fermented milk) which is heat treated after fermentation, must not be designated as “yoghurt” (or as any other specific fermented milk). Only such a provision will make it possible to distinguish clearly two very different categories of products:

- The first having an abundant living lactic flora, the probiotic effect of which is recognised by international scientific authorities, with a short life and necessary transported under a cold chain.
- The second being products that can keep a long time, without living flora nor heat-sensitive active molecules produced by said living flora.

Germany: The labelling of heat-treated products requires extensive discussion. The final sentence of 7.1.1 “Products obtained from fermented milk(s) heat treated after fermentation shall be named “Heat Treated Fermented Milk” is not clear. In our opinion, a name such as “Yoghurt, heat treated” is in line with the wording in 2.1 in combination with 7.1.1. By using the additional term “heat-treated”, the consumer is provided with information on the nature of the product as required by the provisions of the General Standard for the Labelling of Prepackaged Foods.

Italy expressed the opinion that fermented milk products heat treated after fermentation should be designated as “dessert” or with a “fancy name” in order to avoid any similarity to fermented milk.

Spain proposed to remove the quotation marks.

Sweden questioned the proposed wording "Heat Treated Fermented Milks". The earlier proposed wordings ‘Fermented Milks Heat Treated After Fermentation’ gives more information to the consumer about the purpose of the treatment.

Turkey agreed with the new wording: “Products heat treated after fermentation shall be named heat-treated fermented milk”.

United Kingdom expressed the opinion that a heat treated fermented milk should be allowed to bear the name of the product prior to heat treatment because the consumers in their country are for some 50+ years familiar with the name “heat treated yoghurt”.

The US recommended that the last sentence of section 7.1.1, be rewritten as follows:

“Products obtained from fermented milk(s) heat treated after fermentation shall be named “Heat-Treated Fermented Milk. If the consumer would be misled by this name, the products shall be labeled in a manner found acceptable in the country of sale to the final consumer.”

Discussion:

The wording developed by the 4th CCMMP would provide an adequate compromise between the various views expressed. However, the wording should be made clearer.

Recommendation No. 32:

Remove the square brackets and reword the sentence as follows:

“Products obtained from fermented milk(s) heat treated after fermentation shall be named “Heat Treated Fermented Milk”. If the consumer would be misled by this name, the products shall be named as permitted by national legislation in the country of retail sale. In countries where no such legislation exists, the product shall be named “Heat Treated Fermented Milk”.”

Section 7.1.3 – Designation of composite fermented milks

Comments submitted:

Japan proposed to add the following sentence to the Draft Standard: “However, these products may be designated with other variety names specified in the national legislation of the country in which the product is manufactured and/or sold, or names existing by common usage provided that such designation do not create erroneous impression in the country of retail sale regarding the character and identity of food.”

Mexico suggested the following amendment of the text, because the designation that exists on the market, in each country, is to be respected, provided it does not create an erroneous impression of the food; in as much as it is known that equivalent designations of these products are known in the market.

“7.1.2 The name of the composite fermented milk product shall include the name of the principal flavouring substance or flavour added. Other names stipulated by the legal provisions can be used with existing designations commonly used in the manufacturing or distributing companies of the corresponding country, provided they do not create an erroneous impression in the country of retail sale in regard to the identity of the food.”

Discussion:

According to the text in the present Draft Standard, the plain part of composite fermented milks shall be named with the specific names. For example: Fermented milk with strawberry can be named “strawberry yoghurt”, provided the plain part of the composite product complies with the requirements for yoghurt.

The paragraph states that the name of the principal flavourings shall be added to the name. Omitting that principle will not be in compliance with neither the GSLPF nor the GSUDT.

Recommendation No. 33:

No action required.

Section 7.2 - Fat Content

Comments submitted:

The **Czech Republic** suggested that the declaration of fat content should be in % m/m as requested by the Czech national legislation.

Discussion:

The Draft Standard allows for such expression of fat content.

Recommendation No 34:

No action required.

PROPOSED DRAFT REVISED STANDARD FOR FERMENTED MILKS

(As revised at Step 6 by the IDF)

1. SCOPE

This standard applies to fermented milks, that is Fermented Milk including, Heat Treated Fermented Milks, Concentrated Fermented Milks and composite milk products based on these products, for direct consumption or further processing in conformity with the definitions in Section 2 of this Standard.

2. DESCRIPTION

2.1 FERMENTED MILK

Fermented Milk is a milk product obtained by fermentation of milk, which milk may have been manufactured from products obtained from milk with or without compositional modification as limited by the provision in Section 3.3, by the action of suitable microorganisms and resulting in reduction of pH with or without coagulation. These starter microorganisms shall be viable, active and abundant in the product [at the point of sale to the final consumer / to the date of minimum durability / at the time when the product leaves the manufacturer]*. If the product is heat-treated after fermentation the requirement for viable microorganisms does not apply.

*) **Recommendation:** Adopt the phrase “to the date of minimum durability”

Certain Fermented Milks are characterized by specific starter culture(s) used for fermentation as follows:

Yoghurt: Symbiotic cultures of *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *bulgaricus*.

Culture-modified

Yoghurt: [Cultures of *Streptococcus thermophilus* and other *Lactobacilli* other than *Lactobacillus delbrueckii* subsp. *bulgaricus*]*

*) **Recommended product category:** For categorization purposes only (not for purposes of labelling) use the technical term “culture-modified yoghurt”

Recommended definition: Cultures of *Streptococcus thermophilus* and any *Lactobacillus* species.

Acidophilus Milk: *Lactobacillus acidophilus*.

Kefir: Starter culture prepared from kefir grains, *Lactobacillus kefiri*, species of the genera *Leuconostoc*, *Lactococcus* and *Acetobacter* growing in a strong specific relationship. Kefir grains constitute both lactose fermenting yeasts (*Kluyveromyces marxianus*) and non-lactose-fermenting yeasts (*Saccharomyces omnispurus*, *Saccharomyces cerevisiae* and *Saccharomyces exiguus*).

Kumys: *Lactobacillus delbrueckii* subsp. *bulgaricus* and *Kluyveromyces marxianus*.

Other microorganisms than those constituting the specific starter culture(s) specified above may be added.

2.2 CONCENTRATED FERMENTED MILK

Concentrated Fermented Milk is a Fermented Milk the protein of which has been increased prior to or after fermentation to minimum [5.6%]*. Concentrated Fermented Milks includes traditional products such as Stragisto (strained yoghurt), Labneh, Ymer and Ylette.

* **Recommendation:** Retain figure by removing the square brackets

2.3 FLAVOURED FERMENTED MILKS

Flavoured Fermented Milks are composite milk products, as defined in Section 2.3 of the Codex General Standard for the Use of Dairy Terms (CODEX STAN 206-1999) which contain [a maximum of [30/50]% (w/w) of]* non-dairy ingredients (such as nutritive and non nutritive carbohydrates, fruits and vegetables as well as juices, purees, pulps, preparations and preserves derived therefrom, cereals, honey, chocolate, nuts, coffee, spices and other harmless natural flavouring foods) and/or flavours. The non-dairy ingredients can be mixed in prior to/or after fermentation.

*) **Recommendation:** “a maximum of less than 50% (w/w) of”

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 RAW MATERIALS

Milk and/or products obtained from milk.

3.2 PERMITTED INGREDIENTS

- Starter cultures of harmless micro-organisms including those specified in Section 2;
- Sodium chloride;
- In fermented milks heat treated after fermentation only:
- Gelatine and starches: These substances can be used in the same function as stabilizers, provided they are added only in amounts functionally necessary as governed by Good manufacturing Practice taking into account any use of stabilizers/thickeners listed in section 4. These substances may be added either before or after adding the flavourings
- Non-dairy ingredients as listed in Section 2.3 (Flavoured Fermented Milks).

3.3 COMPOSITION

	Fermented Milk	Yoghurt, culture-modified yoghurt and Acidophilus milk	Kefir	Kumys
Milk protein ^a (% w/w)	min 2.7%	Min 2.7%	min 2.7%	
Milk fat (% w/w)	less than 10%	less than 10%	less than 10%	less than 10%
Titration acidity, expressed as % lactic acid (% w/w)	min 0.5%	Min 0.6%	min 0.6%	min 0.7%
Ethanol (% vol./w)				min 0.5%
Sum of microorganisms constituting the starter culture defined in section 2.1 (cfu/g, in total)	min 10 ⁷	Min 10 ⁷	min 10 ⁷	Min 10 ⁷
Labelled microorganisms ^b (cfu/g, total)	min 10 ⁶	Min 10 ⁶		
Yeasts (cfu/g)			min 10 ⁴	Min 10 ⁴

a) Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined.

b) Applies where a content claim is made in the labelling that refers to the presence of a specific microorganism (other than those specified in section 2.1 for the product concerned) that has been added as a supplement to the specific starter culture.

In Flavoured Fermented Milks the above criteria apply to the fermented milk part. The microbiological criteria (based on the proportion of fermented milk product) are valid up to [the point of sale to the final consumer / the date of minimum durability /the time when the product leaves the manufacturer]*. This requirement does not apply to products heat-treated after fermentation.

*) **Recommendation:** Adopt the phrase “to the date of minimum durability” and include the following statement:

“Compliance with the microbiological criteria specified above is to be verified by the manufacturer through analytical testing of the product on “the date of minimum durability” after the product has been stored under the responsibility of the manufacturer and at the storage conditions specified in the labeling.”

3.4 ESSENTIAL MANUFACTURING CHARACTERISTICS

Whey removal after fermentation is not permitted in the manufacture of fermented milks, except for Concentrated Fermented Milk (Section 2.2).

4 FOOD ADDITIVES

Only those additives classes indicated in the table below may be used for the product categories specified. Within each additive class, and where permitted according to the table, only those individual additives listed may be used and only within the limits specified.

In accordance with Section 4.1 of the Preamble to the General Standard for Food Additives (CODEX STAN 192 (Rev. 2-1999), additional additives may be present in the flavoured fermented milks as a result of carry-over from flavouring ingredients.

Additive class	Fermented milks		Fermented milks Heat Treated After Fermentation	
	Plain ¹	Flavoured ²	Plain ³	Flavoured ⁴
Colours	-	×	-	×
Sweeteners	-	×	-	×
Anticaking agents	-	×	-	×
Firming agents	-	×	-	×
Emulsifiers	-	×	-	×
Flavour enhancers	-	×	-	×
Acids	-	-	×	×
Acidity regulators	-	-	×	×
Stabilizers	-	-	×	×
Thickeners	-	-	×	×
Preservatives	-	-	×	×
Packaging gases	-	-	×	×

X = The use of additives belonging to the class is technologically justified

- = The use of additives belonging to the class is not technologically justified

- 1) Includes concentrated fermented milks. Corresponds to GSFA Food Categories 1.1.1.2, 1.1.2 (not flavoured) and 1.2.1.1
- 2) Includes flavoured concentrated fermented milks. Corresponds to GSFA Food Categories 1.1.2 and 1.7
- 3) Includes concentrated fermented milks heat treated after fermentation. Corresponds to GSFA Food Categories 1.1.1.2, 1.1.2 (not flavoured) and 1.2.1.2
- 4) Includes flavoured concentrated fermented milks heat treated after fermentation. Corresponds to GSFA Food Categories 1.1.2 and 1.7

INS No.	Name of Food Additive	Maximum Level
Colours		
102	Tartrazine	300 mg/kg
104	Quinoline yellow	150 mg/kg
110	Sunset Yellow FCF	300 mg/kg
123	Amaranth	300 mg/kg
124	Ponceau 4R	150 mg/kg
127	Erythrosine	300 mg/kg
128	Red 2G	30 mg/kg
129	Allura Red AC	300 mg/kg
132	Indigotine	300 mg/kg
133	Brilliant Blue FCF	150 mg/kg
143	Fast Green FCF	100 mg/kg
150c	Caramel III – ammonia process	2000 mg/kg
150d	Caramel IV – ammonia sulphite process	2000 mg/kg
151	Brilliant black PN	150 mg/kg
160a(i)	Beta-carotene (synthetic)	200 mg/kg

160b	Annatto extracts	100 mg/kg on bixin/norbixin basis
160e	Beta-apo-carotenal	200 mg/kg
161g	Canthaxanthin	Limited by GMP
Sweeteners		
950	Acesulfame Potassium	1000 mg/kg
951	Aspartame	3000 mg/kg
955	Sucralose	400 mg/kg
ANTI-CAKING AGENTS		
504(i)	Magnesium carbonate	Limited by GMP
Firming agents		
452 (iv)	Calcium polyphosphate	1000 mg/kg*, expressed as P ₂ O ₅
Emulsifiers		
341(i)	Monocalcium orthophosphate	) 1000 mg/kg*,
341(ii)	Dicalcium orthophosphate	) expressed as P ₂ O ₅
471	Mono- and di-glycerides of fatty acids	Limited by GMP
Flavour enhancers		
270	Lactic acid (L-, D- and DL-))
296	Malic acid (DL-))
297	Fumaric acid	) Limited by GMP
330	Citric acid)
472f	Mixed tartaric, acetic and fatty acid esters of glycerol)
Acids		
270	Lactic acid (L-, D- and DL-))
296	Malic acid (DL-))
297	Fumaric acid	) Limited by GMP
330	Citric acid)
472f	Mixed tartaric, acetic and fatty acid esters of glycerol)
Acidity regulators		
331 (ii)	Disodium monohydrogen citrate	) Limited by GMP
332 (ii)	Tripotassium citrate)
341 (iii)	Tricalcium orthophosphate	) 1000 mg/kg*,
452 (i)	Sodium polyphosphate	) expressed as P ₂ O ₅
528	Magnesium hydroxide	) Limited by GMP
575	Glucono-delta-lactone (GDL))
Stabilizers and thickeners		
Stabilizers and thickeners may be used in compliance with the definition for milk products and only to the extent they are functionally necessary taking into account any use of gelatine and starch as provided for in Section 3.2 and any use of modified starches as provided for below.		
407	Carrageenan and its Na, K, NH ₄ salts (includes furcelleran))
414	Gum arabic (acacia gum))
415	Xanthan gum	) Limited by GMP
416	Karaya gum)
417	Tara gum)
460 (ii)	Powdered cellulose)
<u>Modified starches, as follows:</u>		
1400	Dextrins, roasted starch white and yellow)
1401	Acid-treated starch	) Limited by GMP
1402	Alkaline treated starch)
1404	Oxidized starch)
Preservatives		

200	Sorbic acid	) 1000 mg/kg, expressed
202	Potassium sorbate	) as sorbic acid
211	Sodium benzoate	50 mg/kg, expressed as benzoic acid
280	Propionic acid	Limited by GMP
	Packaging gases	
290	Carbon dioxide)
941	Nitrogen	) Limited by GMP
942	Nitrous oxide)

*) Total amount of phosphates should not exceed 1000 mg/kg, expressed as P₂O₅.

5. CONTAMINANTS

5.1 HEAVY METALS

The products covered by this standard shall comply with the maximum limits established by the Codex Alimentarius Commission.

5.2 PESTICIDE RESIDUES

The products covered by this standard shall comply with the maximum residues limits established by the Codex Alimentarius Commission.

6. HYGIENE

- 6.1** 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 Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997, Codex Alimentarius, Volume 1B), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.
- 6.2** From raw material production to the point of consumption, the products covered by this Standard should be subject to a combination of control measures, which may include, for example, pasteurization, and these should be shown to achieve the appropriate level of public health protection.
- 6.3** 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, Codex Alimentarius, Volume 1B).

7. LABELLING

In addition to the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991, *Codex Alimentarius*, Volume 1A) and the General Standard for the Use of Dairy Terms (CODEX STAN 206-1999), the following specific provisions apply:

7.1 NAME OF THE FOOD

- 7.1.1** The name of the food shall be fermented milk or concentrated fermented milk as appropriate.

However, these names may be replaced by the designations Yoghurt, Acidophilus Milk, Kefir, Kumys, Stragisto, Labneh, Ymer and Ylette, provided that the product complies with the specific provisions of this Standard. Yoghurt may be spelled as appropriate in the country of retail sale.

“Culture-modified yoghurt”, as defined in Section 2, shall be named through the use of an appropriate qualifier in conjunction with the word “yoghurt”. The chosen qualifier shall describe, in a way that is accurate and not misleading to the consumer, the nature of the change imparted to the yoghurt through the selection of the specific Lactobacilli in the culture for manufacturing the product. Such change may include a marked difference in the fermentation organisms, metabolites and/or sensory properties of the product when compared to the product designated solely as “yoghurt”. Examples of qualifiers which describe differences in sensory properties include terms such as “mild” and “tangy”. The term “culture-modified yoghurt” shall not apply as a designation.

The above specific terms may be used in connection with the term “frozen” provided (i) that the product submitted to freezing complies with the requirements in this Standard, (ii) that the specific starter cultures can be reactivated in reasonable numbers by thawing, and (iii) that the frozen product is named as such and is sold for directly consumption, only.

Other fermented milks and concentrated fermented milks may be designated with other variety names as specified in the national legislation of the country in which the product is sold, or names existing by common usage, provided that such designations do not create an erroneous impression in the country of retail sale regarding the character and identity of the food.

- 7.1.2** Products obtained from fermented milk(s) heat treated after fermentation shall be named “Heat Treated Fermented Milk”. [If the consumer would be misled by this name, the products shall be labelled in a manner permitted by national legislation in the country of sale to the final consumer. When there is no legislation in the country of sale, the product shall be labelled “Heat Treated Fermented Milk”.]*

**Recommendation: Remove square brackets and reword the text as follows:*

If the consumer would be misled by this name, the products shall be named as permitted by national legislation in the country of retail sale. In countries where no such legislation exists, the product shall be named “Heat Treated Fermented Milk”.

- 7.1.3** The designation of Flavoured Fermented Milks shall include the name of the principal flavouring substance(s) or flavour(s) added.
- 7.1.4** The designation of products, to which artificial sweeteners have been added, shall be accompanied by the term “sweetened with...”.
- 7.1.5** The names covered by this Standard may be used in the designation, on the label, in commercial documents and advertising of other foods, provided that it is used as an ingredient and that the characteristics of the ingredient are maintained to a relevant degree in order not to mislead the consumer.

7.2 DECLARATION OF FAT CONTENT

If the consumer would be misled by the omission, the milkfat content shall be declared in a manner acceptable in the country of sale to the final consumer, either as (i) a percentage of mass or volume, or (ii) in grams per serving as qualified in the label, provided that the number of servings is stated.

7.3 LABELLING OF NON-RETAIL CONTAINERS

Information required in Section 7 of this Standard and Sections 4.1 to 4.8 of the General Standard for the Labelling of Pre-packaged Foods, and, if necessary, storage instructions, shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer or packer, shall appear on the container. However, lot identification and the name and address of the manufacturer or packager may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8. METHODS OF SAMPLING AND ANALYSIS

See *Codex Alimentarius*, Volume 13.