codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

Agenda Item 4 (b) **CX/MMP 02/7-part 1**
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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 STANDARDS FOR INDIVIDUAL CHEESES

(Prepared by International Dairy Federation)

Governments and interested international organisations are invited to comment on the attached proposed draft standards for individual cheese varieties. Comments should be sent to:

Ms Laurie Knight
Codex Committee on Milk and Milk Products
MAF Policy, Ministry of Agriculture and Forestry
PO Box 2526
Wellington, New Zealand
Fax: +64 4 4744265
E-mail: knightl@maf.govt.nz

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 (February-March 2000) the Committee decided that the IDF should consider the WG reports, written comments submitted and the discussions during the Session when considering the redrafting of the Codex standards for individual cheeses. It was also understood that the IDF might identify a series of principles related to these issues during this review process, and that a full report and recommendations should be provided by the IDF to the CCMMP at its next session.

For the convenience of delegates, the IDF has addressed issues relating to the redrafting of the C-standards in three separate reports as follows:

- ***Report no. 1***: Establishment of absolute minimum contents of fat in dry matter for individual cheese varieties
- ***Report no. 2***: Review of details in the individual cheese standards
- ***Report no. 3***: Redraft of the Proposed Draft Standards for Individual Cheese Varieties

REPORT NO. 1 - ESTABLISHMENT OF ABSOLUTE MINIMUM CONTENTS OF FAT IN DRY MATTER FOR INDIVIDUAL CHEESE VARIETIES

1. BACKGROUND

1.1 Debate at the 4th Session of the CCMMP

At the 4th Session of the Committee, the information and recommendations of the Working Group (WG) contained in document CX/MMP 00/7 were accepted. On the basis of their discussions immediately prior to the Session, the WG provided to the Committee additional recommendations as contained in document CRD 2[1], which were also accepted by the Committee.

No consensus was reached on the above issues, but the IDF was requested to continue collecting data for all cheeses in question.

2. APPROACHES TO RESOLVE THE ISSUE OF ESTABLISHING ABSOLUTE MINIMUM FAT CONTENTS

Two approaches to identifying absolute minimum fat levels are possible:

1) Technological approach - establishing the absolute minima on the basis of technological considerations

2) Market approach - establishing the absolute minima in accordance with the current market situation

The technological approach is complicated and would in most cases require a huge amount of work. Therefore, the IDF considers that the market approach may be more appropriate and pragmatic as a starting point as such an approach may enable the CCMMP to identify cheese varieties that could be easily resolved and varieties that requires further word (e.g. by developing a technological approach).

In the case of Cream Cheese, both a market approach (in this report) and a technological approach have been developed (the latter provided in the Report no. 3 – Redraft of the Proposed Draft Standards for Individual Cheese Varieties (recommendation no. 51).

Applying the Market approach

Data

Data have been furnished from 22 cheese-producing countries. Such data indirectly mirrors the acceptability of reduced fat variants by consumers in major cheese consuming countries.

It is recognised that information on fat reduced variants is not readily available from the normal national sources and statistics. Consequently, data have to be sought from direct sources such as retail data, market research, surveys and other private sources of information to provide estimates of volumes and product composition.

It has also appeared that data on imports and exports of reduced fat variants of individual cheeses are particularly difficult to obtain. It has therefore been necessary to use production data alone, as it may be assumed that all production is either consumed in the country of production or exported.

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[1] **CRD 2 recommended as follows**: Each Draft Standard for Individual Cheeses shall have a minimum defined fat levels established, standard by standard, which should be examined in a pragmatic manner. These minimum fat levels shall be established using the following principles:

- Essential characteristics and products identity are maintained
- To take into account the existing production and trade
- To ensure equivalency of the manufacturing process
- Acceptability of fat reduced products by consumers

Recommendations for adoption of minimum fat levels for the following standards were:

- Danbo: 20% FDM
- Havarti:30% FDM
- Samsø: 20% FDM
- Tilsiter: 30% FDM
- Cottage: None be established
- Coulommiers: 40% FDM
- Camenbert: 30% FDM

Establishing absolute minima levels on the basis of market data

Where the market approach is found suitable, a decision tree approach can facilitate the decision-making. For this purpose, a decision tree approach based upon the following, is provided:

- Reduced fat variants to be addressed in the standard for the variety in question if reduced fat variants are estimated to constitute quantities of **1,000T or more** and are produced in **3 or more** countries.

  Where produced in amounts according to the above, the lowest FDM level reported may be considered to constitute the absolute minimum.

- If not produced in amounts according to the above, the **minimum fat levels** of reduced fat variants as specified in the **existing Codex Standards** may be considered to be retained.

  It should be stressed that these criteria are arbitrary as would be the case with any market based criteria applied and there is no real technological basis for their selection.

3. ABSOLUTE MINIMUM FDM LEVELS FOR THE INDIVIDUAL CHEESE VARIETIES RESULTING FROM THE MARKET APPROACH

With the objective of assisting with the issue, the IDF has analysed the data available with a view to identify absolute minima that would be the result of applying market approach using the criteria provided in section 3 above. This exercise has been carried out independently from individual government comments submitted to CX/MMP 00/12 (the draft standards considered at the 4th CCMMP Session).

The result of this exercise is provided in the **Annex** to this report.

4. RECOMMENDATIONS FOR THE 5TH CCMMP

The CCMMP is invited to:

a) **Consider** whether a pragmatic approach based upon market data can apply as a tool to identifying absolute minimum contents of dry matter in some or all of the individual cheese varieties currently under consideration;

b) **Consider** the feasibility of applying the decision tree approach provided, and if considered feasible, consider adopting the absolute minima resulting from this approach, as specified in the Annex to this report.

The absolute minima resulting from this exercise and provided in the Annex have been implemented in the revised Proposed Draft Standards as appended the Report no. 3 - Redraft of the Proposed Draft Standards for Individual Cheese Varieties.

Annex: Analysis of data from 22 countries using the Market (decision tree) Approach

Variety	Result of analysis	Resulting absolute min.
Cheddar	At least 14,500 tons of reduced fat variants are produced in at least 8 countries. The lowest reported fdm content is 1%	1% FDM
Danbo	At least 2,600 tons of reduced fat variants are produced in at least 1 country. Current minimum in standard is 20%	20% FDM
Edam	At least 35,000 tons of reduced fat variants are produced in at least 5 countries. The lowest reported FDM content is 30%	30% FDM
Gouda	At least 11,300 tons of reduced fat variants are produced in at least 8 countries. The lowest reported FDM content is 30%	30% FDM
Havarti	At least 1,300 tons of reduced fat variants are produced in at least 3 countries. The lowest reported FDM content is 30%	30% FDM
Samsø	At least 400 tons of reduced fat variants are produced in at least 1 country. Current minimum in standard is 30%	30% FDM
Emmental	At least 1,200 tons of reduced fat variants are produced in at least 2 countries. Current minimum in standard is 45%	45% FDM
Tilsiter	At least 4,850 tons of reduced fat variants are produced in at least 4 countries. The lowest reported FDM content is 30%	30% FDM
Saint-Paulin	At least 1,500 tons of reduced fat variants are produced in at least 1 country. Current minimum in standard is 40%	40% FDM
Provolone	At least 66 tons of reduced fat variants are produced in at least 4 countries. Current minimum in standard is 45%.	45% FDM
Cottage Cheese	Data not available	4% total fat (w/w)
Dry Curd Cottage Cheese	Data not available	None
Coulommiers	No reduced fat variants are produced in any of the 22 countries. Current minimum in standard is 40%.	40% FDM
Cream Cheese*	Reduced fat variants are produced in many countries. The lowest reported FDM content is 25%	[25/40]% FDM
Camembert	At least 15,000 tons of reduced fat variants are produced in at least 4 countries. The lowest reported FDM content is 30%	30% FDM
Brie	At least 1 ton of reduced fat variants is produced in at least 1 countries. Current minimum in standard is 40%.	40% FDM
Mozzarella (low)	At least 40,900 tons of reduced fat variants are produced in at least 11 countries. The lowest reported FDM content is 2%	2% FDM
Mozzarella (high)	No data available. Current minimum in proposed draft standard is 20%.	20% FDM
[Parmesan]**	No reduced fat variants are produced in any of the 22 countries.	32% FDM

*) Reference is made to Report no. 3 that provides an alternative approach based upon technological considerations, and which results in an absolute minimum fat content for Cream Cheese of 40% (see Recommendation no. 51 of Report no. 3).

**) The establishment of a standard for Parmesan is subject to consideration by the 5th Session of the CCMMP

REPORT NO. 2: REVIEW OF DETAILS IN THE INDIVIDUAL CHEESE STANDARDS

1. BACKGROUND

1.1 Debate at the 4th Session of the CCMMP

At the 4th Session of the Committee, the information and recommendations of the Working Group (WG) contained in document CX/MMP 00/7[2] were accepted. On the basis of their discussions immediately prior to the Session, the WG provided to the Committee additional recommendations as contained in document CRD 2[3], which were also accepted by the Committee.

Other delegations suggested the following additional set of principles that were presented and discussed in the WG but not included in its final report, as follows:

- Uniquely identify the cheese;
- Exclude other types of cheese;
- Allow for alternative making procedures; and
- Meaningful and measurable.

Several delegations supported the continued consideration of all principles and recommendations summarized above. It was felt that requirements and criteria based on individual cheeses should only be restricted to final product provisions, which were necessary to meet the Codex mandate (protecting the health of consumers and ensuring fair trade practices). In this regard, it was felt that the current drafts were much too detailed and prescriptive and that individual standards restricted to essential criteria determined by the agreed principles would be much more desirable.

Several other delegations were of the opinion that a set of detailed and specific criteria were essential to characterize the identity of each cheese covered by an individual cheese standard and to determine compliance with the requirements of the individual cheese variety. It was noted that a generic cheese standard could not account for the individual characterizing provisions required to maintain distinct standards of identity for various cheeses. It was felt that the sum of these characterizing provisions were directly related to the Codex mandate.

No consensus was reached on the above issues.

1.2 Principles used earlier for the establishment/revision of the C-standards

In following up on the debate at the 4th Session, the IDF has thoroughly examined the debate and possibilities for establishing broader and more objective principles and criteria for inclusion of details in these standards.

During this examination, the approach used earlier by the IDF and by the former Joint FAO/WHO Committee of Government Experts on the Code of Principles Concerning Milk and Milk Products (the "Milk Committee") were investigated. These investigations showed as follows:

Principles used in earlier revisions (by IDF):

In earlier reviews, the following principles were used:

1. Each comment received to the proposed draft standards were examined individually.

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[2] **CX/MMP 00/7 recommended as follows**: On the basis of the list of criteria approved in the questionnaire, which forms a general framework, we recommend that the IDF examine each individual standard in order to check the relevance of the criteria included in each standard. This study should make it possible to distinguish between requirements which are essential in characterizing a cheese and those which could be transferred to appendices 2 or possibly deleted.

[3] **CRD 2 concluded as follows**: Essential criteria are necessary to characterise individual cheese standards and these are to be considered standard by standard. The WG could not reach consensus on the specific criteria contained in the table provided by the Chair for discussion. The WG requests the CCMMP to submit this table to IDF for further examination of the essential criteria for each individual standard.

2. The considerations and recommendation of the horizontal committees relevant for the standards were taken into account in the recommendations provided (such as CCGP, CCFAC CCFL, CCFH).

3. The general approach was that a Government comment was accepted unless proper technical or scientific reasons or, where appropriate, long-term commercial trading practices justify a non-acceptance or an amendment of the proposal.

4. Where Governments expressed different views, possible solutions were provided with the aim of facilitating a decision. They took into account technical justification and/or existing commercial trading practices.

Principles and criteria used by the former "Milk Committee"

1. The "Milk Committee" considered that the primary target was at first to establish for each individual cheese variety only one international cheese standard, that

   a. Provided an overview of the numerous cheese varieties on a global scale, and

   b. Avoided misleading of the consumer with regard to different designations for similar cheeses in various countries (e.g. Tilsit, Havarti, Tilci, Kreivi).

2. The "Milk Committee" considered that it should also be attempted to establish the use of true designations for each individual cheese. Such international individual cheese standards were regarded as minimum standards, which did not exclude the adoption or application of more restrictive national regulations or standards. The individual designations laid down in an international cheese standard could be applied in any country provided that the characteristics of the cheese in question are in line with the requirements of the respective standard.

3. According to the established procedure, any country that had a specific interest in a certain cheese variety was invited to apply for the elaboration of that specific individual cheese standard. Documentation that should be provided by each individual government should cover at least the following issues:

   a. Designation;

   b. Applying country;

   c. Used raw material including additives;

   d. Essential characteristics of the cheese (e.g. shape, size, weight, rind, eyes and holes, minimum fat content, maximum moisture content); and

   e. Method of manufacture.

   Furthermore the country should provide details of the economic importance of the respective cheese variety and the country should provide its laws and regulations with respect to that cheese.

4. By July 1965, individual countries submitted 72 applications for individual cheese varieties. Since many of these cheeses characterised in the applications from governments were to a certain extent similar, a number working groups on international level were established to come to consent for several of these individual cheeses.

   It can be concluded that in all these various committees that worked on the elaboration of individual cheese standards no scientific discussion took place. The procedure clearly showed which details of a standard were generally regarded as being necessary. The reasons for including these details were the same as today, namely the protection of consumers and the facilitation of trade. Predominantly the borderline whether or not to establish a certain detail was either national law in force in those countries applying for an individual cheese standard and/or the method of manufacture used in the country. In summary so-called "typical characteristics" defined on a national basis were the decisive factors.

2. NEED FOR CONSISTENT AND OBJECTIVE GUIDANCE FOR INCLUSION OF DETAILS

It has become evident that there is a need for establishing generally accepted guidance for the inclusion of details in the standards for individual cheese varieties. Such guidance should be based upon the Codex Procedural Manual and assist in ensuring a consistent approach.

Guidance that is recommended to be applied in the further review of the Proposed Draft Standards for Individual Cheese Varieties is appended to this report as **Annex I**.

The Guidance addresses the following four areas:

- ***Essence of the relevant guidance to Codex Committees as contained in the Codex Procedural Manual (section 1).***

  The information contains extracts from the Statutes of Codex (Article 1.a), the General Principles of the Codex Alimentarius (para. 3), the Format of Codex Standards (notably the parts addressing description, and essential composition and quality factors).

- ***Basic principles for addressing a concept (of a detail) in the standard (section 2.1).***

  Two basic principles are provided. These are intended to provide guidance on whether the addressing of a concept/type of detail is justified. The principles are derived from the debate of the CCMMP at its 4th Session.

  Note: *These principles are not intended to provide guidance to decide whether a certain detail should be restrictive, prescriptive or flexible; only to decide whether the concept should be addressed at all in the standard. Guidance on actual formulation (content) of a detail is provided in section 2.2.b of the Guidance.*

- ***Guidelines for the application of the basic principles (section 2.2)***

  The guidance provided section 2.2.a is intended only to ensure that every concept/type of detail is considered individually for each variety. The basic principles provided in Section 2.1 are intended to base the decision whether or not to address each concept in each standard.

  Once it has been decided to address a concept in an individual standard, the guidance provided in section 2.2.b should be followed. The guidance provided here concerns the actual formulation of the detail. The guidance has been derived from the discussions that took place at the 4th Session of the CCMMP.

  Section 2.2. (c) provides the option for locating a detail in an Appendix to the standard, if it does not comply with the basic principles.

- ***Practical approach for the current revision (section 3).***

  The guidance provided here is intended to apply only during the finalization of the Proposed Draft Standards currently under revision.

  The guidance provided in section 3.a addresses the concept/type of details and is based upon the fact that the draft standards have been subjected three times to comments at Step 3.

  Section 3.b states that the current formulation of all current details should be reviewed according to the guidance provided in Section 2.2.b, i.e. with a view to relate them further to end product description and to ensure measurability.

  Section 3.c has been added to ensure that the content of the Appendices are reviewed in accordance with the recommendations of the Codex Secretariat (CX/GP 99/7), as the distinction between the main body of a standard and its appendix presumably does not affect their status in the framework of the TBT Agreement.

  Note: *In connection with the development of the above guidance, consideration has been given to the possibility of distinguishing the applicability of certain details in certain standards between products intended for direct consumption and products intended for further processing. IDFs considerations in this respect were not finalized at the time of writing this report. When finalized, additional guidance to address this aspect may be developed.*

3. REVIEW OF CURRENT DETAILS

As part of the redrafting of the current Proposed Draft Standard, the IDF has initiated an examination and review of each detail using the guidance provided in Annex I. This review has been carried out independently form individual government comments submitted to CX/MMP 00/12 (the draft standards considered at the 4th CCMMP Session.

Appended to this report as **Annex II** the results of this exercise are presented. The approach used is to examine each type of detail individually and to review the current formulation of that detail in all standards where the concept has been addressed. Such an approach assists in ensuring consistency among the various standards.

A table is presented for each concept/type of detail that contains the following information:

- 3rd column: The formulation as presented in the Proposed Draft Standard in question, as presented in CX/MMP 00/12.
- 4th column: The current location in the Proposed Draft Standard in question, as presented in CX/MMP 00/12.
- 5th column: Recommended conclusion with regard to the retention of the concept/type of detail in the standard, based upon the basic principles (section 2.1 of Annex I). The rationale for the conclusion is stated as well.
- 6th column: Result of an analysis whether the current formulation of the detail adheres to the guidance provided (section 2.2.b of Annex I). Where the conclusion on retention is "no" (5th column), such analysis has not been carried out.
- 7th column: Any remarks and/or rationales in support of the advice to the CCMMP (8th column).
- 8th column: Recommendation to the CCMMP with regard to retention, formulation and location of the detail. This advice has been incorporated in the redrafted Proposed Draft Standards (see separate report).

Where found appropriate, suggestions and/or notations relating to other standards (where a certain detail has not been addressed) are provided as "other considerations" in foot notes to the tables in question.

The time available for this exercise did not permit the development of appropriate recommendations on some of the current details (relating directly and indirectly to ripening such as technology, ingredients, methods and dimensions/weights of Emmental). However, it is believed that appropriate recommendations for the formulation of these details will be available for consideration by the 6th Session of the CCMMP. In these cases, the redrafted standards contain, in square brackets, the unchanged wording as found in CX/MMP 00/12.

Note: *The current considerations within the IDF with regard to a possible distinguishing of the applicability of certain details between products intended for direct consumption and products intended for indirect consumption have not been taken into account in this exercise. Consequently, the recommendations should be regarded as applicable to at least products intended for direct consumption. Future conclusions on distinguishing will provide clarity to which extent the recommendations should be applicable to products intended for further processing.*

4. RECOMMENDATIONS FOR THE 5TH CCMMP

The CCMMP is invited to:

a. **Take note** of the principles and criteria used by the former "Milk Committee"

b. **Consider applying** the guidance provided in **Annex I** of this report to govern the further revision of the Proposed Draft Standards for Individual Cheese Varieties.

c. **Consider** the review of details as presented in **Annex II** of this report and , to the extent recommendations are provided therein, to adopt these with regard to addressing the concepts, formulations of details and their locations.

d. **Consider** that the final decisions are made at the 6th session on the formulations of those details specified in **Annex II** for which recommendations have not yet been developed and request the IDF to report on these matters. The CCMMP may, taking into account written comments from Member Countries and International Organizations, wish to provide guidance for the development of recommendations.

Annex I:

GUIDANCE FOR INCLUSION OF DETAILS IN

CODEX STANDARDS FOR INDIVIDUAL CHEESE VARIETIES

1. THE CODEX PROCEDURAL MANUAL

The standards shall be drafted in accordance with the Codex Procedural Manual. In particular, the content of the standard should:

a. Protect consumers health and ensure fair practices in food trade

b. Should, to comply with the GSLPF and the GSUDT, adequately describe the nature (true identity) of the food.

c. Should contain a description of the product with an indication, where appropriate, of:

   i. the raw materials,

   ii. any necessary references to processes of manufacture,

   iii. all quantitative and other requirements as to composition including, where necessary, identity characteristics,

   iv. requirements as to compulsory and optional ingredients, and

   v. quality factors which are essential for the designation, definition or composition of the product with the object to preventing fraud (such as quality of raw material, taste, odour, colour, texture and basic quality criteria of the end product).

d. Be based on sound science, sound technology and other factors considered legitimate to meet the aims described in the above indents.

2. PRINCIPLES AND GUIDELINES FOR APPLICATION FOR CODEX STANDARDS FOR INDIVIDUAL CHEESE VARIETIES

2.1 BASIC PRINCIPLES:

a) The true identity of a cheese is described by a group of criteria, and the absence of one of these may modify the identity of the cheese variety. In such a group of criteria, the type/concept of (a) detail(s) that is(are) necessary to adequately describe the true identity of a cheese variety are those that:

   i. Achieve the characteristics of the variety either directly or indirectly, and/or

   ii. Differentiate it from other cheese varieties regulated by Codex and other varieties having significant importance on the market.

b) The type/concept of a detail should be addressed (retained, amended or included) within the body of the standard where:

   i. A horizontal provision need clarification though an interpretation or an additional specification.

   ii. Other information related to consumers health protection and/or facilitating fair trade practices justifies addressing the type/concept of a detail (or a set of details).

2.2 GUIDELINES FOR APPLICATION:

a. The following type/concepts should be evaluated individually for each cheese variety:

   i. Type of cheese

   ii. Texture of cheese mass (consistency, moisture)

   iii. Appearance of cheese body (holes, colour)

   iv. Origin of milk

v. Appearance of whole cheese (description of the rind, rind/rindless, format, shape, dimensions, weights)

vi. Specific method(s) of manufacture (ripening, special/unique processing steps) including, if necessary, appropriate alternative method(s) of manufacturing that achieve an equivalent end product

vii. Specific flavour characteristics

b. Details to be included in the body of the standard should be formulated as follows:

i. Criteria that are formulated in a way that relates to the description of the end product should be preferred. Where this is not possible or sufficient, the criteria may be formulated differently and/or supplemented.

ii. Measurable criteria (quantitative or by reference to established reference scales) should be preferred. Where this is not possible, the criteria may be formulated differently.

iii. Methods of determining quantitative (measurable) *identity criteria* should be identified, where appropriate

c. A type/concept of a detail that cannot be addressed in the body of the standard can be addressed in the appendix to the standard for non-governmental application, if it reflects patterns established by common practice and/or by national legislation.

3. PRACTICAL APPROACH FOR THE REVISION OF THE STANDARDS CURRENTLY UNDER CONSIDERATION

a. Taking into account the previous reviews, it is appropriate to regard the type/concept of details currently included in the proposed draft standards for individual standards (CX/MMP 00/12) as justified for inclusion as concepts, though the formulations of each detail may not be fully adequate in all cases. Proposals for deletion must include justification that demonstrates that the above principles have not been met, in particular, that the identity of the variety will not be adversely affected by its deletion.

b. The details currently included should be reviewed using the principles specified in section 2.2.b above.

c. The same approach should be applied in a review of the details currently located in the appendices to the current proposed draft standards, i.e. (i) to determine whether the concept/type of a detail should be retained in or removed from the appendix or should be relocated in the main body of the standard and (ii) if retained, to formulate them in accordance with section 2.2.b above.

Annex II:

REVIEW OF DETAILS CURRENTLY ADDRESSED IN

CODEX STANDARDS FOR INDIVIDUAL CHEESE VARIETIES

Contents

CLASSIFICATION OF VARIETY – TYPE OF CHEESE (16 STANDARDS)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Hard	Section 2	Yes, necessary for: - Distinguishing between varieties. - Clarification of the applicability of provisions contained in A-6.	Relates to description of end product. Measurable, as defined by MFFB in A-6	Could be replaced by range of MFFB - however, not recommended. Semi-hard no longer defined	Retain formulation. and location However, delete "semi-hard" from Mozzarella
C-3	Danbo	Firm					
C-4	Edam	Firm					
C-5	Gouda	Firm					
C-6	Havarti	Firm					
C-7	Samsø	Hard					
C-9	Emmental	Hard					
C-11	Tilsiter	Firm					
C-13	Saint-Paulin	Firm					
C-15	Provolone	Firm					
C-16	Cottage Cheese	Soft					
C-18	Coulommiers	Soft					
C-31	Cream Cheese	Soft					
C-33	Camembert	Soft					
C-34	Brie	Soft					
[C-36]	Mozzarella (low)	Firm/semi-hard					
	(high)	Soft					

CLASSIFICATION OF VARIETY – RIPENING TYPE (16 STANDARDS)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Ripened	Section 2	Yes, necessary for: - distinguishing between varieties - clarification of the applicability of provisions in A-6 (def. of ripening is variety specific) - the description of taste and texture	Relates to description of end product Measurable by analyzing protein breakdown (qualitative)	The terms are defined in A-6	Retain formulations and location
C-3	Danbo	Ripened					
C-4	Edam	Ripened					
C-5	Gouda	Ripened					
C-6	Havarti	Ripened					
C-7	Samsø	Ripened					
C-9	Emmental	Ripened					
C-11	Tilsiter	Ripened					
C-13	Saint-Paulin	Ripened					
C-15	Provolone	Ripened					
C-16	Cottage Cheese	Unripened					
C-18	Coulommiers	Surface ripened, primarily mould ripened					
C-31	Cream Cheese	Unripened					
C-33	Camembert	Surface ripened, primarily mould ripened					
C-34	Brie	Surface ripened, primarily mould ripened					
[C-36]	Mozzarella	Unripened					

CLASSIFICATION OF VARIETY – TECHNOLOGY (3 STANDARDS)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Pressed	Section 2	No, pressing is generally practiced in the manufacture of non-soft cheeses	Does not relate to end product. Not measurable	Term not defined	Delete
		After coagulation, the curd is cut and scalded at up to 42^{O}C. The curd is separated from the whey and stirred or cheddared. After cheddaring the curd is milled. When the desired acidity is reached the curd is salted. The curd and salt are then mixed and moulded.	Appendix 1.2	Yes, it reflects the understanding of "cheddaring", as part of the identity of the variety	Does not relate to end product. Not measurable	The term "scalded" should be replaced by clearer wording. Other manufacturing processes that achieves the same should be addressed	Retain location. Replace "scalded" with "cooked" and define the term as a foot note as follows: "heating the curd in its whey above coagulation temperature" Add at the end of the text: "Other processing techniques, which give end products with the same physical, chemical and organoleptic characteristics may be applied."
C-15 and [C-36]	Provolone and Mozzarella	Provolone/Mozzarella is made by "pasta filata" processing which consists of heating curd of a pH value suitable for further processing by kneading and stretching until the curd is smooth and free from lumps. Still warm, the curd is cut and moulded, then firmed by cooling in chilled water or brine. Other processing techniques, which give end products with the same physical, chemical and organoleptic characteristics are allowed.	Section 2	Yes, for distinguishing between varieties. Scientific/technical litterature classifies this variety as a "pasta filata" type. Essential for taste, structure and physical properties	Relates to end product, as it describes the resulting structure as specified elsewhere in section 2. Not measurable, but an integrated part of the detail in cheese structure	Allows for equivalent methods of manufacture	Retain location and formulation.

Ingredients – Restriction of Milk origin (15 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Cows´ milk or buffaloes´ milk, or their mixtures, and products obtained from these milks.	Section 3.1	Yes, essential for taste, colour and texture	Relates to end product Measurable		Retain formulation and location
C-3	Danbo						
C-4	Edam						
C-5	Gouda						
C-6	Havarti						
C-7	Samsø						
C-9	Emmental						
C-11	Tilsiter						
C-13	Saint-Paulin						
C-15	Provolone						
C-16	Cottage Cheese						
C-18	Coulommiers						
C-33	Camembert						
C-34	Brie						
[C-36]	Mozzarella						

Ingredients – Starter cultures (4 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Lactic acid starter is added to the milk	Appendix 1.1	Yes. The main concept is that Cheddar is made from lactic acid bacteria, only with no gas-forming strains.	Does not relate directly to end product. Measurable	Can be addressed by: 1) Emphasizing the use of non-gas forming starter cultures or by 2) Deleting gas forming bacteria from section 3.2	Retain location, but reformulate the phrase into: "Starter cultures consist of non-gas forming lactic acid producing bacteria."
C-9	Emmental	Starter cultures of propionic acid producing bacteria.	Section 3.4	Yes. Essential for taste and eyes development	Does not relate directly to end product. Measurable	Formulation need to include all specific species necessary.	additional cultures will be reported to the 6th Session of the CCMMP.
C-15	Provolone	The main starter culture microorganisms shall be *Lactobacillus helveticus, Streptococcus salivarius subsp. thermophilus, Lactobacillus delbrueckii subsp. bulgaricus* and *Lactobacillus casei.*	Section 3.4	Yes. Essential for taste development	Does not relate directly to end product. Measurable		Replace "main" with "principal". Retain location
[C-36]	Mozzarella (high)	Lactic acid bacteria, where used, are predominantly constituted by *Streptococcus thermophilus* and/or Lactococcus spp.	Appendix 2.1	Yes. Essential for taste development	Does not relate directly to end product. Measurable	The text is somewhat vague	Replace with wording that is similar to Provolone: "The principal starter culture microorganisms are Streptococcus thermophilus and/or Lactococcus spp" Retain location

Ingredients – Coagulants (1 standard)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-15	Provolone	Coagulants limited to rennet	Section 3.2	Yes, however, as part of the details that describes ripening indicators - the mixture of enzymes constituting natural rennet is important in development of rennet	Does not relate directly to end product. Measurable. Can be replaced by details related to end product	Subject to further consideration as part of addressing ripening.	Align with other standards (no restrictions). Advice on ripening to be developed and presented at the 6th Session of the CCMMP.

Internal appearance – texture of cheese mass (15 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Firm, smooth and waxy	Section 2	Yes. Provides a further clarification according to MFFB. Essential for moutfeel and physical properties	Relates directly to end product. Measurable by rheological methods	The term "firm" should be replaced with another descriptive term as it is not related to MFFB	Retain location, but replace the Term for "firm" with "Solid and compact"
C-3	Danbo	Firm, suitable for cutting					
C-4	Edam	Firm, suitable for cutting					
C-5	Gouda	Firm, suitable for cutting					
C-6	Havarti	Suitable for cutting					
C-7	Samsø	Firm, suitable for cutting					
C-9	Emmental	Sliceable				The formulation should be more specific	Replace "sliceable" with "solid, compact and flexible"
C-11	Tilsiter	Semi-hard, suitable for cutting				Semi-hard not defined	Replace with "firm". Retain location
C-13	Saint-Paulin	Firm but flexible					Retain formulation and location
C-15	Provolone	Fibrous, suitable for cutting and, when aged, for grating as well					
C-18	Coulommiers	Soft				Should be aligned with Camembert	Add "but not crumbly". Retain location
C-31	Cream Cheese	Spreadable, smooth to slightly flaky Spreads and mixes readily with other foods					Retain formulation and location
C-33	Camembert	Soft, but not crumbly				See remark to C-18	Align formulation with camembert Retain location
C-34	Brie	Smooth, but not crumbly					
[C-36]	Mozzarella (low)	Smooth elastic, suitable for shredding					Retain formulation and location
	(high)	Smooth elastic					

Other considerations: For consistency reasons, it may be advisable to address texture in C-16 as the only one missing – e.g. by reformulating 2nd sentence in section 2 into: "The cheese has a granular texture consisting ~~consists~~ of …"

Internal appearance – Structure of cheese (8 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	No free moisture	Section 2	No	Relates to end product Measurable by visual check and/ or confogal scanning	Unclear what is meant – all cheese has free moisture	Delete
C-15	Provolone	Long stranded parallel-orientated protein fibers.		Yes, for distinguishing between varieties, visual appearance, mouthfeel and physical properties. Result of applying pasta filata or similar technology			Retain formulation and location
C-16	Cottage Cheese	Discrete individual soft curd granules, possibly covered with a creamy mixture		Yes, for distinguishing between varieties, visual appearance, mouthfeel and physical properties.			
C-18	Coulommiers	Matured from the periphery to the centre		Yes, for distinguishing between varieties, visual appearance, colour, texture, mouthfeel and physical properties.		Wording should be aligned. See also "Technology - How ripening should occur"	Replace formulations with: "Ripened from the surface to the centre of the cheese" Retain location
C-33	Camembert	Ripened from the surface					
C-34	Brie	Ripened from the surface					
[C-36]	Mozzarella	Long stranded parallel-orientated fibrous protein structure without evidence of curd granules.		Yes, for distinguishing between varieties, visual appearance, mouthfeel and physical properties. Result of applying pasta filata or similar technology			Retain formulation and location
	(low)	Homogeneous		Yes, for visual appearance, colour, and texture,			
	(high)	Overlying layers that may form pockets containing liquid of milky appearance		Yes, for visual appearance			

Internal appearance – Holes (15 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	None to few mechanical openings, no gas holes	Section 2	Yes, for Visual appearance Distinguish between varieties Taste (flavours produced by gas forming bacteria)	Relates to end product Measurable by visual checking	Round gas holes are normally referred to as "eyes" while holes are used in a more general meaning, including cracks and splits	Retain location.
C-3	Danbo	Few to plentiful, evenly distributed, smooth and round holes of sizes as peas					Replace "gas holes" and "holes" with "eyes". For Edam and Gouda, replace reference to rice, peas and pin´s head with "up to 10 mm in diameter"
C-4	Edam	Few more or less round holes of sizes varying from rice to pea, distributed regularly as well as irregularly all over the interior of the cheese					
C-5	Gouda	Few to plentiful, more or less round holes of sizes varying from pin´s head to a pea, distributed regularly as well as irregularly all over the interior of the cheese					
C-6	Havarti	Plentiful, irregular and coarse holes of the size of large rice seeds					Retain formulation and location
C-7	Samsø	Few to plentiful, evenly distributed, smooth and round holes of sizes varying from pea to cherry					Retain location. Replace "gas holes" and "holes" with "eyes"
C-9	Emmental	Regular, scarce to plentiful distributed, mat to brilliant holes from 1 to 3 cm					
C-11	Tilsiter	Irregularly shaped, shiny and evenly distributed holes					Retain formulation and location
C-13	Saint-Paulin	Generally absent, but a few sperical or stretched (slits), smooth holes of pinhead size may occur					
C-15	Provolone	A few holes and splits may occur					
C-18	Coulommiers	Generally absent, but possible small longitunal splits and openings may occur					Retain location. Align formulation of Colloummiers with Camembert and Brie
C-31	Cream Cheese	No holes					Align formulation of Cream Cheese with Mozzarella
C-33	Camembert	Generally absent, but splits and openings may occur					
C-34	Brie	Generally absent, but splits and openings may occur					
[C-36]	Mozzarella (low)	Without holes					

Internal appearance – Colour of cheese mass (16 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Uniform, pale straw through dark straw to orange	Section 2	Yes, for - Visual appearance - Distinguishing between varieties - Justification for adding colours/de-colours, where needed. However, the colour need not be more specific than to emphasize that the colours of the products is within the white to yellow range and not, for instance, blue, green, or violet.	Relates to end product Current descriptors not measurable by objective means	The terms used are too subjective and often with no meaning, e.g.: - "straw": straw can be green, yellow or grey. - "cream": buffaloes cream is white. Colour of cow´s cream depends on feed	Replace with "uniform whitish to yellow or orange"
C-3	Danbo	Yellowish					Replace with "whitish to yellow"
C-4	Edam	Yellowish					
C-5	Gouda	Straw					
C-6	Havarti	Light yellow					
C-7	Samsø	Yellowish					
C-9	Emmental	Ivory to light yellow					
C-11	Tilsiter	Ivory to yellow					
C-13	Saint-Paulin	Uniform yellow to white					
C-15	Provolone	Pale to fair yellow straw					
C-16	Cottage Cheese	Natural white to light cream					Replace with "whitish"
C-18	Coulommiers	Cream yellow to white					Replace with "whitish to yellow"
C-31	Cream Cheese	White to light cream					
C-33	Camembert	White to creamy yellow					
C-34	Brie	White to creamy yellow					
[C-36]	Mozzarella (high)	White to light cream					Replace with "whitish"

External appearance – allowance of rind/rindless (15 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	With or without rind	Section 2	Yes, addressing this issue could assist in avoiding disuputes	Relates to end product Measurable by visual checking	It is not clear whether the cheese is manufactured without rind or the rind is cut off after manufacture This should be made clear	Retain location and insert an explanatory note wherever the terms "with or without rind" and "rindless" appear. "The cheese has been ripened and/or kept in such a way that no rind is developed (a rindless cheese)"
C-3	Danbo	With or without rind					
C-4	Edam	With rind. Flat block or loaf shape with or without rind					
C-5	Gouda	With rind. Flat block or loaf shape with or without rind					
C-6	Havarti	With or without rind					
C-7	Samsø	With or without rind					
C-9	Emmental	With rind Block shape with or without rind					
C-11	Tilsiter	With or without rind					
C-13	Saint-Paulin	With or without rind					
C-15	Provolone	With or without rind					
C-18	Coulommiers	With rind					
C-31	Cream Cheese	Rindless					
C-33	Camembert	With rind					
C-34	Brie	With rind					
[C-36]	Mozzarella	Typically rindless				"Typically" indicates that rind is sometimes developed	Delete "typically"

Other considerations: The only standard that does not address rind/rindless is C-16 (Cottage Cheese). For consistency reasons, the term "rindless" should be included.

External appearance – Allowance of coatings (9 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	May be coated	Section 2	Yes, for clarity *Already allowed by* A-6 Makes distinction that coating is not appropriate for all varieties (e.g. not unripened and mould ripened varieties	Relates to end product Measurable by visual checking		Retain location and formulation
C-3	Danbo	May be coated					
C-4	Edam	May be coated					
C-5	Gouda	May be coated					
C-6	Havarti	May be coated					
C-7	Samsø	May be coated					
C-11	Tilsiter	May be coated					
C-13	Saint-Paulin	May be coated					
		Can be coated (i.e. plastic film, wax)	Appendix 1.3			Considered advisable to retain until final adoption of the proposed annex to A-6 on cheese surface terminology.	
C-15	Provolone	Commonly covered with wax and/or paraffin.	Section 2				Align with the other standards
		Cheese coatings are often used	Appendix 1.2			Repetition	Delete

External appearance – cuttings (3 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-18	Coulommiers	May be cut into sectors or half-cylinders; half-cylinders may be cut into sectors; cuts should follow the axis of the cylinder.	Appendix 1.1	Yes. It is necessary to relocate permission to cut into sectors prior to mould development in the main body of the standard because mould development on surface is mandatory	Measurable by visual checking Relates to end product	The formulations are not consistent and should be aligned.	Re-allocate the concept in section 2 and formulate the detail as follows: "Whole cheese may be cut or formed into sectors prior to or after the mould development" Further, dimensions (section 3.4) to whole cheeses and add "or sectors thereof" after reference to shape(s) in section 2.
C-33	Camembert	May be cut into sectors before maturation	Appendix 1.4				
C-34	Brie	Whole cheese cut into sectors; half cylinder, half cylinder in sectors	Appendix 1.1				
		May be cut into sectors before maturation	Appendix 2.3				

External appearance - colour of the rind/surface (7 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-9	Emmental	Yellow to golden brown	Appendix 1.1	No. Automatic consequence of drying out the cheese mass, if the colour of cheese mass is obtained	Relates to end product Measurable by visual checking		
C-13	Saint-Paulin	Beige, yellow or ochre	Appendix 1.3				Delete
C-15	Provolone	Yellow, brown when smoked	Section 2				
		May be coloured	Appendix 1.3	No, colours are added to the coating – not the rind			Delete
C-18	Coulommiers	White, occasionally with red or orange spots	Section 2	Yes, to verify that the surface has been covered with white moulds		The formulations should be aligned	Retain location and formulate as follows: "White but may occasionally have red, brownish or orange coloured spots"
C-33	Camembert	White, but may have occasional red or orange-coloured spots					
C-34	Brie	White, but may have occasional orange coloured spots					
[C-36]	Mozzarella	Satin-like appearance		No, not essential for the variety			Delete

External appearance – appearance of rind (12 standards)

Standard:	**Variety:**	**Current formulation:**	**Current location:**	**Retention of concept?**	**Formulation adhering to guidance?**	**Remarks:**	**Advice to CCMMP**
C-3	Danbo	Hard, smear-ripened	Section 2	Yes, for - Visual appearance - Distinguishing between varieties In the case of mould ripened varieties: Verification of mould coverage	Relates to end product Measurable, however not objectively	Align with C-13	Retain location. Add "or slightly moist" after "hard"
C-4	Edam	Dry					Retain location and formulation
C-5	Gouda	Hard, dry					Retain location Delete "hard"
C-6	Havarti	Semi-soft, slightly greasy, smear-ripened				Semi-soft not defined	Retain location. Delete "semi-soft"
C-7	Samsø	Hard					Retain location. Add "dry"
C-9	Emmental	Hard					Retain location. Add "dry"
		Hard, dry	Appendix 1.1			Repetition	Delete
C-11	Tilsiter	Well-dried smear-developed	Section 2				Retain location and formulation
C-13	Saint-Paulin	Dry or slightly moist, hard, but elastic under thumb pressure					Retain location and formulation
		Hard, but elastic under thumb pressure, with a dry or, in the case of washed rind, humid appearance	Appendix 1.3			(Almost) a repetition of section 2	Delete
C-18	Coulommiers	Flexible, covered with mould	Section 2				Retain location. Align formulation into: "Soft and uniformly covered with mould"
C-33	Camembert	Soft, uniformly covered with mould					
C-34	Brie	Soft and uniformly covered with mould					
[C-36]	Mozzarella (high)	A silky skin may be present in products made from buffalo´s milk	Appendix 1.2			Not an identity question	Delete

External appearance – treatment of surface (2 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-9	Emmental	Washing of surface is permitted	Appendix 1.1	No, washing of surface is commonly practiced in the manufacture of most other varieties, and generally allowed. Retention may give the impression that this is not the case.			Delete
C-15	Provolone	May be added antimycotic agents	Appendix 1.2	No. Covered by section 4 (pimaricin)	Does not relate to end product Measurable		Delete

External appearance - typical packing (2 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-15	Provolone	Typically encased in ropes	Appendix 1.2	Yes. Integrated part of the product (similar to coating)	Relate to end product. Yes – visually Measurable by visual checking		Retain location and formulation
[C-36]	Mozzarella (high)	May be packed with or without the liquid	Section 2	Yes, necessary for appropriate weight specification (not drained)			Retain location and formulation

Appearance of whole cheese – Shape (13 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-3	Danbo	Flat square or parallelepiped	Appendix 1.1				Move to section 2
C-4	Edam	Flat block and loaf shape is also sold without rind	Section 2			Strange that only the non-typical shapes are	Delete references to shapes in the appendix and reformulate shape spe-
		Normally spherical. Edam for further processing, cutting and slicing may have other shapes	Appendix 1	Yes, for Visual appearance	Relate to end product	mentioned in section 2, while the most typical is mentioned in Appendix	fications in section 2 as follows: Edam: "The shape is spherical, of a flat block or of a loaf".
C-5	Gouda	Flat block and loaf shape is also sold without rind	Section 2	Distuinguish between			
		Normally flat cylindrical with convex sides. Gouda for further processing, cutting and slicing may have other shapes	Appendix 1	varieties Mouthfeel	Measurable by visual checking		Gouda: "The shape is of a flattened cylinder with convex sides, a flat block, or a loaf."
C-6	Havarti	Flat cylindrical, rectangular (loaf) and rectangular	Appendic 1.1	(C-16)			Move to section 2
C-7	Samsø	Flat cylindrical, flat square and rectangular	Appendix 1.1				
C-9	Emmental	Traditionally manufactured as a wheel, but other shapes are possible.	Section 2			Alignment is advisable	Retain location and replace "other shapes with "blocks"
		Wheel and block	Appendix 1.2				
C-13	Saint-Paulin	Small flat cylinder with slightly protruding sides	Appendix 1.1			Alignment with terms used in other standards recommended	Retain location. Replace "protruding" with "convex" and add that "other shapes are possible"
C-15	Provolone	Mainly cylindrical or pear-shaped, but other shapes are possible	Section 2				Retain formulation and location
		Typical shapes are cylindrical (Salame), pear-shaped (Mandarino), pear-shaped cylinder (Gigantino) and flask (Fiaschetta).	Appendix 1.1			Provides additional information on terms used in the marketplace	Retain formulation and location

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-16	Cottage Cheese	Granules of relatively uniform size	Section 2				Retain formulation and location
C-18	Coulommiers	Flat cylinder					
C-33	Camembert	Flat cylinder or a square					
C-34	Brie	Flat cylinder					
[C-36]	Mozzarella	May be formed in various shapes					

Appearance of whole cheese – dimensions (11 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-3	Danbo	Normally manufactured with a side of 30 cm approx	Appendix 1.2	No, not essential	Relates to end product Measurable		Delete
C-6	Havarti	Flat cylindrical: Height at least half the diameter Rectangular (loaf): Square cross section; length more than double height;	Appendix 1.1				
C-7	Samsø	Flat cylindrical: Diameter of the former (not mini): min. 44 cm approx. Flat square and rectangular: Side min. 30 cm	Appendix 1.1				
C-9	Emmental	Wheel: commonly height 12-30 cm and diameter 70-100 cm Block: commonly height 12-30 cm	Appendix 1.2	Yes, provides useful information of common market cheeses. Dimensions are consequences of common weight and shape specifications. Also relates to ripening outcome.			Formulation will be reported to the 6th CCMMP. Meanwhile, the current formulation has been kept in square brackets.
C-13	Saint-Paulin	Usual variant: Diameter approx. 20 cm "Petit Saint-Paulin": Diameter 8-13 cm	Appendix 1.2				Retain formulation and location
C-15	Provolone	Various	Appendix 1.1	No, superflous			Delete
C-16	Cottage Cheese	Granules from approx. 3-12 mm depending on whether small or large type of curd is desired	Section 2	Yes, essential for visual identity			Retain formulation and location
C-18	Coulommiers	Height: max 5 cm	Section 3.4	Yes, essential for ripening performance (surface to center)			Retain formulations and location
C-33	Camembert	Height: max 5 cm					
C-34	Brie	Height: max 5 cm					
[C-36]	Mozzarella (high)	Various	Appendix 1.1	No, not essential			Delete

Appearance of whole cheese – weight (12 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-3	Danbo	Normally manufactured in weights of approx. 8.5 kg. Weights range normally from 6 to 14 kg, however, weights below 6 kg are sold with adequate descriptors addressing the size in association with the name.	Appendix 1.2	No, not essential			Delete
C-4	Edam	Normally manufactured with a weight ranging from 1.5 to 2.5 kg. Lower weights are normally qualified by the term "Baby". Edam intended for further processing, cutting or slicing may have other weights	Appendix 1	Yes, provides explanations to terminology used			Retain formulation and location. However, the term "further processing" should be subject to review and has been put in square brackets.
C-5	Gouda	Normally manufactured of weights ranging from 2.5 to 30 kg. Lower weights are normally qualified by the term "Baby". Gouda intended for further processing, cutting or slicing may have other weights	Appendix 1				
C-6	Havarti	Flat cylindrical: weight below 2 kg Rectangular (loaf): weight min. 0.2 kg Rectangular: weight min. 2 kg	Appendix 1.1	No, not essential			Delete
C-7	Samsø	Flat cylindrical: min. 12 kg or less than 1 kg Flat square and rectangular: min. 8.0 kg	Appendix 1.1		Relate to end product Measurable		
C-9	Emmental	Traditionally manufactured of weights of 60 kg or more, but other weights above 20 kg are possible	Section 2	Yes			Formulation will be reported to the 6th Session of the CCMMP. Meanwhile, the current formulation has been kept in square brackets.
		Wheel: commonly 60 kg Block: commonly 40 kg	Appendix 1.2				
C-13	Saint-Paulin	Usual variant: min.1.3 kg "Petit Saint-Paulin": min. 150 g. "Mini Saint-Paulin": Min. 20 g.	Appendix 1.2	Yes, provides explanations to terminology used			Retain formulation and location
C-15	Provolone	Varies from 0.3 to 30 kg	Appendix 1.1	No, not essential			Delete
C-18	Coulommiers	Min. 300 g	Section 3.4	Yes, for distinguishing between the 3 varieties			Retain formulation and location
C-33	Camembert	Min. 80 g; max. 500 g					
C-34	Brie	Min. 500 g; max. 3500 g					
[C-36]	Mozzarella (high)	Various	Appendix 1.1	No, not essential			*Delete*

Flavour (4 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-9	Emmental	Mild, nutlike, more or less pronounced	Appendix 1.3	Yes, essential criteria, which is easy to describe	Relates to end product. Measurable by organoleptic testing. Analytical criteria can be identified	Nutlike and sweet flavour is an important characteristic feature of this variety	Retain formulation, but add "sweet" Relocate in section 2
C-15	Provolone	Sold in mild and sharp variants, occasionally smoked. Mild products have a sweetish and buttery flavour whereas sharp products are piquant due to ageing	Appendix 1.3	Yes, provides indication that the variety is sold as smoked as well	Relates to end product. Measurable by organoleptic testing	Second sentence does not add specific value to the identity of the variety.	Retain location and the first sentence. Delete second sentence.
C-34	Brie	Characteristic of the variety	Appendix 1.2	Yes, essential criteria, which is easy to describe	Relates to end product. Not measurable	Current formulation says nothing	Formulation will be reported to the 6th session of the ccmmp. Meanwhile, the current formulation has been kept in square brackets.
[C-36]	Mozzarella (low)	Mild and creamy	Appendic 1.1	No	Relates to end product. Measurable by organoleptic testing	Formulation is not specific enough	Delete
	(high)	A mild fresh flavour. Mozzarella made from buffalo's milk is usually more salty and presents a characteristic flavour and taste	Appendix 1.3	No	Relates to end product. Measurable by organoleptic testing	Formulation is not specific enough	Delete

Technology – Ripening procedure (14 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-9, C-11, C-13, C-15, C-18, C-33, C-34		For [*variety name*] ready for consumption, the ripening procedure to develop flavour and body characteristics is normally from [*variety specific period*] at [*variety specific temperature range*] °C depending of the degree of maturity required. Different ripening conditions may be used provided the cheese exhibits similar physical, biochemical and organoleptic changes to those achieved by the previously stated ripening procedure. [*Variety name*] intended for further processing need not exhibit the same degree of ripening	Section 2	Yes, as the definition of ripening (A-6) is variety specific.	Does not relate to end product Not measurable	Work has been undertaken to provide biochemical ripening indicators to replace and/or supplement the current information	Will be reported to the 6th Session of the CCMMP. Meanwhile, the current wording has been retained in square brackets
C-1	Cheddar	Typical maturation times varying from 5 to 52 or more weeks, depending on the temperature of maturation and the degree of maturity required.	Appendix 1.2				
C-9	Emmental	Matured at successive temperatures up to 25 °C	App. 2.2				

Technology – how ripening should occur (6 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Following pressing the cheese is wrapped and matured	Appendix 1.2	No, not essential	Does not relate to end product Not measurable	Apparently, this relates to rindless cheese, only	
		May be ripened for up to 2 hours before coagulation	Appendix 1.1			Not important – may vary	Delete
C-9	Emmental	Possibly manufactured by the use of ripening films	Section 2	May be needed, depending on the outcome on the work on ripening	Does not relate to end product Not measurable	Work has been undertaken to provide biochemical ripening indicators to replace and/or supplement the wording	Will be reported to the 6th Session of the CCMMP. Meanwhile, the current wording has been retained in square brackets
		Proteolysis due to action of microbial enzymes	Appendix 2.2	Yes (justification is being developed by IDF)	Does not relate to end product Measurable by analyzing protein breakdown	Work has been undertaken to provide advice with regard to addressing ripening and cooking	Will be reported to the 6th Session of the CCMMP. Meanwhile, the current wording has been retained in square brackets
C-15	Provolone	Rindless is possible provided ripened under vacuum in plastic film	Section 2	No, redundant	Does not relate to end product Not measurable	Obvious statement, however, why only plastic film	Delete
C-18	Coulommiers	Matured from the periphery to the centre	Section 2	Yes, Essential for the identity (mouthfeel, flavour, physcial properties, appearance)	Relate to end product Measurable by visual means	Formulations should be aligned	See under "Internal appearance – structure"
C-33	Camembert	Ripened from the surface					
C-34	Brie	Ripened from the surface					

Technology – Specific ripening agents (9 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-3	Danbo	(Ripening enzymes not permitted)	Section 3.2	May be needed, depending on the outcome on work initiated on ripening	Does not relate to directly to end product Measurable	Work has been undertaken to provide biochemical ripening indicators to replace and/or supplement the wording	Will be reported to the 6th Session of the CCMMP. Meanwhile, the current wording, including any ripening enzymes currently listed in section 3.2, have been retained in square brackets
C-5	Gouda						
C-6	Havarti						
C-7	Samsø						
C-9	Emmental						
C-11	Tilsiter						
C-18	Coulommiers	Predominantly surface development of moulds followed by proteolysis from the surface caused by *Penicillium camembertii* and other harmless microorganisms such as *Geoptrichum candidum*, *Brevibacterium linens*, yeast, etc.	Appendix 2.4				
C-33	Camembert	Predominantly cultures of *Penicillium camembertii* and other harmless microorganisms such as *Geotrichum candidum, Brevibacterium linens*, yeast, etc.	Appendix 1.4			Cultures of *P. caseicolum* should in any case be added to the list of moulds, if such list is retained	
C-34	Brie	Predominantly cultures of *Penicillium caseicolum, Penicillium camembertii* and other harmless microorganisms such as *Geotrichum candidum, Brevibacterium linens*, yeast, etc.	Appendix 2.3				

Technology – Type of coagulation (5 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	Coagulation using rennet or other suitable coagulating enzymes	Appendix 1.1	No, covered by 3.2			Delete
C-13	Saint-Paulin	Chiefly with rennet or other suitable coagulating enzymes	Appendix 2.1				
C-18	Coulommiers	Rennet and lactic acid originating from lactic acid bacteria	Appendix 2.1	No, covered by 3.2		Inconsistency with 3.2	Delete
C-33	Camembert	Rennet and lactic acid producing bacteria at coagulation temperature	Appendix 1.1			Acid is not responsible for coagulation unless the iso-electric point has been reached	
C-34	Brie	Rennet and lactic acid producing bacteria at coagulation temperature	Appendix 2.1				

Technology – Type of acid formation (5 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-9	Emmental	Lactic acid and propionic acid fermentation	Appendix 2.1	Yes, to differentiate between microbiologically and chemically/heat derived coagulation	Does not relate to end product Measurable	Propionic acid fermentation specific to Emmental is part of current work on review of ripening details	Retain location but reformulate as follows: "Microbiologically derived acid development"
C-13	Saint-Paulin	Lactic acid fermentation	Appendix 2.2				
C-18	Coulommiers	Predominantly lactic fermentation	Appendix 2.3				
C-33	Camembert	Predominantly lactic acid fermentation	Appendix 1.3				
C-34	Brie	Predominantly lactic acid fermentation	Appendix 2.2				

Technology – curd treatments to control end product characteristics (6 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-9	Emmental	The curd is heated after cutting [to a temperature suitable for thermophilic fermentation; where non-pasteurized milk is used, to a minimum of 50ºC.]	Section 3.4	Yes, cooking is essential	Does not relate directly to end product Not measurable	Adequate formulation is under development by IDF	Will be reported to the 6th Session of the CCMMP. Meanwhile, the square brackets have been retained
C-13	Saint-Paulin	The temperature of the coagulum is sometimes raised by 1° or 2 °C. After clotting the coagulum is cut; particles are washed; curd is moulded under pressure	Appendix 2.3	No, normal manufacturing procedure for firm/soft cheeses	Does not relate to end product Not measurable		Delete
C-18	Coulommiers	No heat treatment and no washing/lactose removal	Appendix 2.2			Not clear what is meant	
C-33	Camembert	No heat treatment	Appendix 1.2	No, not eseential	Does not relate to end product Not measurable	Further, positive details are preferred to negative details	Delete
C-34	Brie	No heat treatment	Appendix 2.4				
[C-36]	Mozzarella (high)	The curd is not scalded in its whey at temperatures exceeding 40 °C	Appendix 2.2	No, normal manufacturing procedure for firm/soft cheeses			Delete

Technology – salting procedure (6 standards)

Standard:	Variety:	Current formulation:	Current location:	Retention of concept?	Formulation adhering to guidance?	Remarks:	Advice to CCMMP
C-1	Cheddar	When the desired acidity is reached the curd is salted	Appendix 1.2	Yes, it reflects the understanding of "cheddaring", as part of the identity of the variety	Does not relate to end product Measurable by salt gradient	See under "classification of variety – technology"	
C-13	Saint-Paulin	Salted in brine	Appendix 2.3	Yes, dry salting may result in a different product			Retain location and formulation
C-18	Coulommiers	Dry salting or salting in brine	Appendix 2.5	No, the way of salting is not essential		Not very important	Delete
C-33	Camembert	Dry salting or salting in brine	Appendix 1.5				
C-34	Brie	Dry salting or salting in brine	Appendix 2.5				
[C-36]	Mozzarella (high)	Products made from buffalo´s milk shall be salted in cold brine	Appendix 2.3	Yes, dry salting may result in a different product			Retain location and formulation

Other considerations: Consider whether brine salting vs. dry salting should be addressed in other standards as the way of salting is an important measure in developing variety specific ripening

REPORT NO. 3: REDRAFT OF THE PROPOSED DRAFT STANDARDS FOR INDIVIDUAL CHEESE VARIETIES

INTRODUCTION

The primary basis for the redrafting is the Proposed Draft Standards as tabled at the 4th Session of the Committee (Annexes to CX/MMP 00/12) and the relevant parts of the Annex to CX/MMP 00/5 that relates to Cream Cheese, now incorporated as a revised standard C-31 for Cream Cheese. The results of the first separate report (market approach to identity absolute minimum fat contents) and the recommendations of the second separate report (review of details) have been incorporated as well.

The following principles have been applied for the other parts of the standards:

1. The review has been done in light of written comments submitted[4], the outcome of the deliberations of the Ad Hoc Working Group on Cheese[5] and the discussion that took place at the 4th Session[6]. Further, the comments made to Cream Cheese[7] have been reviewed.
2. Each written comment submitted has been examined individually. However, the recommendations on absolute minimum fat contents and on details, as presented in report no. 1 and 2, respectively, have been developed outside the framework of the written comments.
3. The recommendations of the 33rd Session of the Codex Committee on Food Additives and Contaminants (CCFAC) have been incorporated.
4. 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.
5. 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.

Revised Proposed Draft Standards, as redrafted accordingly, incorporating the outcome of the market approach for establishing absolute minimum fat contents (report no. 1) and the recommendations of the report no. 2 (details),are attached to this report. Further, the proposed draft revised standard for cream cheese has been included based upon relevant excerpts from the Draft Group Standard for Unripened Cheese Including Fresh Cheese tabled at the 4th session of the Committee (CX/MMP 00/5), and amended according to the decisions of CCMMP on that standard.

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).

GSFA: Draft General Standard for Food Additives (currently being developed by the CCFAC)

GSUC: Group General Standard for Unripened Cheese Including Fresh Cheese (CODEX STAN xxx-2001)

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4 CX/MMP 00/12 adds 1 and 2 and CRDs5 and 8 tabled at the 4th Session of the CCMMP.

5 CX/MMP 00/7 and CRD 2

6 ALINORM 01/11, para´s 78-83

7 CX/MMP 00/5 Add.s 1 and 2 and CRDs 5 and 8

REVIEW OF HORIZONTAL PROVISIONS

2. DESCRIPTION

2.1 General considerations

Comments submitted:

Denmark supports the revised drafts as presented in CX/MMP 00/12 and considers them appropriate for being progressed to Step 5 of the Codex Procedure. Principally, Denmark support the **degree of detailing** as currently included, although it recognizes that a few individual details need to be reconsidered.

The overall purpose of an individual cheese standard is to ensure that if a food is designated with a regulated name for a variety, then the cheese shall comply with the requirements of the standard in question.

CCMMP´s task is to ensure that the individual cheese standards fulfil a purpose, i.e. that the cheese varieties regulated by Codex are described in sufficient detail to ensure that they are justified as standards, including that they can be distinguished from each other.

The following objectives should be met if the standard for individual cheese varieties should have any meaning:

1. Protection of the health of the consumer
2. Ensuring fair practices in trade
3. Protection against fraud
4. Ensuring good manufacturing practices
5. Ensuring a sound choice for the consumer
6. Ensuring that the true nature of the specific food is adequately described
7. Ensuring that the standards are sufficiently distinguishable

With regard to the C-standards, the distinguishing criteria currently included can be categorized as follows:

- Whether unripened, ripened or mould ripened (as defined by standard A-6);
- Texture in terms of moisture on fat free basis (as defined by standard A-6);
- Characteristic manufacturing methods used as a reference (i.e. pasta filata and smear ripened);
- Curd texture for unripened cheese varieties;
- Holes for ripened cheese varieties (presence/absence, shape and size); and
- Weight of mould ripened cheeses.

Unless the above distinguishing criteria are specified, the justification for retaining Codex regulation of the varieties disappears. It should be noted that the question whether the above criteria are the "true" ones for distinguishing between the varieties or whether other criteria could be established for this purpose, in principle, does not affect the general need for having such details.

When formatting the standards, it should be done in a consistent way, that is, that the same type of criteria be specified for varieties within the same category specified above (for instance, the presence/absence, size and shape of holes should be described in all standards for ripened firm cheese varieties).

Discussion:

See separate report on "Review of details in the Standards for Individual Cheese Varieties".

To avoid any confusion with regard to the application of details in an individual standard, the section on the name of the food should make it clear that the use of the name is an option and that the standard does not mandate the use of the name for any cheese complying with the standard. The general standard for cheese provides the naming provisions for cheeses not using the name specified in a standard for individual varieties.

Recommendation no 1:

Insert the following text in section 7.1.1 of all individual standards:

"*The use of the name is an option that may be chosen only if the cheese complies with this standard. Where the name is not used for a cheese that complies with this standard, the naming provisions of the General Standard for Cheese (A-6) apply*."

2.2 Reference to type of cheese

Comments submitted:

Denmark: Unless this distinguishing criterion is specified, the justification for retaining Codex regulation of the varieties disappears.

Discussion:

See separate report on "Review of details in the Standards for Individual Cheese Varieties".

2.3 Reference to colour

Comments submitted:

Cuba agrees with the development of a more generic descriptor system.

Discussion:

See separate report on "Review of details in the Standards for Individual Cheese Varieties".

2.4 Reference to texture

Comments submitted:

Denmark: Unless this distinguishing criterion is specified, the justification for retaining Codex regulation of the varieties disappears.

Discussion:

See separate report on "Review of details in the Standards for Individual Cheese Varieties".

2.5 Reference to holes/eyes

Comments submitted:

Denmark: Unless this distinguishing criterion is specified, the justification for retaining Codex regulation of the varieties disappears. When formatting the standards, it should be done in a consistent way, that is, that the same type of criteria be specified for varieties within the same category specified above (for instance, the presence/absence, size and shape of holes should be described in all standards for ripened firm cheese varieties).

Germany rejects initiatives that aim at eliminating provisions on the formation of holes and the description of holes in cheese. Hole formation is in certain cheeses part of the typical texture and is expected by the consumer. Eliminating this characteristic would have negative effects on the identity of the product.

Discussion:

See separate report on "Review of Details in Standards for Individual Cheese Varieties".

2.6 Reference to ripening provisions

Comments submitted:

Cuba agreed with the text recommended in CX/MMP 00/12

Germany did not support the present text. Ripening is an essential characteristic of cheese. There should be specific ripening provisions with respect to ripening time. A deviation for cheese intended for further processing is not justifiable as the identity of the product is also of importance in these products. Differentiation between products for the final consumer and for further processing is also opposed with a view to labelling aspects. If cheese serves as an ingredient in another food and is declared as such in the list of ingredients or in connection with the name of the food, a product corresponding to the end product is assumed. In the text the term "normally" in the first sentence as well as in the second and the third sentence are to be deleted. There should only be one minimum ripening time.

France stated, that in view of the diversity of the cheeses covered by individual standards, the ripening period applicable must be fixed on a standard-by-standard basis. To use the trade name reserved by the standard, the fixed period must be complied with because it is necessary to give the product the required biochemical, physical and organoleptic characteristics as provided by the standard. The fixing of minimal

ripening period is essential for cheeses characterized by a long ripening period. This period must also be applied to cheeses intended for subsequent treatment.

United Kingdom can agree to the general approach but considers that the current text is too liberal and would undermine the integrity of fully matured cheese varieties with the potential to mislead the consumer. Thus, we propose terms such as "equivalent" or "same" be used instead of "similar" in the second sentence to ensure that differently-ripened cheeses would need to possess characteristics very close to the cheese produced by the traditional, full-ripening process. Also, UK has concerns regarding the final sentences and seeks clarification on the intended meaning of the phrase "further processing".

Discussion:

See separate report on "Review Details in Standards for Individual Cheese Varieties".

3.1 Raw materials

Comments submitted:

Cuba agreed with the text recommended provided that the organoleptic characteristics are not affected. Otherwise, differentiation should be made.

France stated that, at present, cheeses of individual standards must be produced exclusively with cow's milk. The use of she-buffalo's milk or mixes of cow's and she-buffalo's milk require adapting the rules applicable to the cheeses existing on the market, in particular regarding labelling, so as not to mislead consumers in the country of sale. It would be desirable to examine the consequences of this development when examining individual standards.

Discussion:

Reference is made to report of IDF for the 4th Session. It is presumed that all individual varieties can be made from buffalo's milk without changing the identity of the cheese, provided that the products are labelled in accordance with, in particular, section 4.1.2 of the GSUDT.

Recommendation no 2:

No change as reference is already made to the applicability of the GSUDT in the preamble to Section 7 of the standards.

3.2. PERMITTED INGREDIENTS

3.2.1 Flavour enhancing enzymes

Comments submitted:

Cuba agrees with the analysis of IDF (CX/MMP 00/12 – rec. no. 7), that is, to consider permission standard by standard, recognizing the use in Cheddar, Edam, Provolone, Coulommiers, Camembert and Brie, and, the standard text recommended.

Germany: The use of ripening enzymes is generally considered not necessary. To permit these substances would mean a considerable change to the traditional manufacturing procedure of cheese; negative effects on the typical properties of cheese cannot be ruled out. Consequently, opening up of the Standards for Cheddar, Edam, Provolone, Coulommiers, Camembert and Brie is rejected.

France requested, that ripening enzymes should be allowed for Saint-Paulin.

Discussion:

See separate report on "Review Details in Standards for Individual Cheese Varieties".

3.2.2 Rice, corn, wheat and potato flours

Comments submitted:

Germany suggests that the use should be limited to corn and potato starches and specified by a maximum quantity. Flour containing gluten has allergic potential for people suffering from coeliac disease. Consumption of milk products should not be burdened with such a risk. A maximum limit of 4% should be specified.

France: The addition of these substances should be examined, standard-by-standard, to establish whether they are technologically necessary. Such addition is not in fact necessary in certain cheeses in current practices.

Spain: The proposed draft cites the sizes of products cut in slices or grated; "granulated or in powder" should be added.

Discussion:

The 4th CCMMP debated the issue in relation to unripened cheeses. The technological justification for using these flours is equivalent to the use of anti-caking agents. It is difficult to specify a maximum limit on the basis of weight, as the technological need depends on the surface area and not the weight of the product. For instance, the amount needed for cuts are significantly less than the amount needed for shredded cheese.

Recommendation no 3:

Where flours are allowed by a standard due to the technological justification for their use, use the same wording as has been agreed for unripened cheeses. The change necessary is to delete reference to wheat flour. Currently, flours are permitted in all standards under consideration, but C-16 Cottage Cheese and C-31 Cream Cheese. (See also Rec. no. 25 relating to Emmental).

3.3 COMPOSITION

3.3.1 System/format

Comments submitted:

Cuba agreed with the format recommended. Mffb should not be introduced.

Denmark supports the approach made to the **compositional section** (format). The system recommended by IDF seems sensible and workable (a reference level, adequate qualifiers for deviations from that level, and a permitted range of fat contents).

Germany supported the system as described for all cheese varieties.

France: The French authorities consider that the presentation of the different cheese composition formulas (fat content according to dry matter) remains complex. They nonetheless consent to include the two criteria: dry matter and fat / dry matter. They accept that the moisture content in non-fat substances (TEFD) influence the nature of the product, but stress that other factors also contribute to this texture. These are different technological factors (heating, bacilli, enzymes, lactose removal, etc.), ripening conditions, calcium content, etc. It is in fact well known that products with the same TEFD may have totally different textures. The minimum fat contents must be studied standard by standard.

Discussion:

For the purpose of the C-standards, it is not appropriate to use MFFB to compare between two significantly different varieties. Instead, MFFB can be used to compare two variants within the same variety, i.e. principally independent from the cheese technology used. When the fat content is altered as the only cheese manufacturing parameter, then the retention of MFFB ensures that fat is not replaced with water and vice versa. The various sets of dry matter/fat in dry matter combinations stated in the draft standards for individual cheese varieties have been established using the principle of retaining the MFFB content of the reference cheese.

Recommendation no 4:

No action required

3.3.2 Reference to the GSUDT

Comments submitted:

Spain points out that by not fixing the maximum content of fat in dry matter, the changes in composition consisting of increasing the percentage of fat will never violate the provisions of Section 4.3.3 of said General Standard. This does not seem normal, and we could ask ourselves whether it is a matter of standardizing cheeses made with cream.

Discussion:

Although full consistency would be obtained by specifying absolute max FDM, it would also further complicate the presentation of the standards. It is considered that specifying absolute maximum fat contents will not be necessary for ensuring fair trade and for describing the true identity of the varieties. Further, some limitation is already provided by the reference to type of cheese in the description (i.e. soft, firm, hard, extra hard) as well as an absolute minimum protein content, if included in Standard A-6.

Recommendation no 5:

No change

3.3.3 Minimum fat contents

Comments submitted:

Denmark agrees that the reference fat level should be established on a case-by-case basis, as it is an essential characteristic of any individual variety.

In order to ensure that the essential characteristics are maintained in the case of compositional modification (e.g. reduced fat content) as prescribed by section 4.3.3 of the General Standard for the Use of Dairy Terms*, a more general approach is possible and needed as follows:

1. The permitted range of fat contents (absolute minimum content through to absolute maximum content) should also be established on a case by case basis;
2. Consistency, however, should be ensured by applying the same approach to similar cheese types. For instance, it is very difficult to justify objectively, that Camembert can maintain the essential characteristics although the fat content is reduced e.g. to 30 % while another type of soft mould ripened cheese like Brie cannot.

*) The principle says that the essential product characteristics shall be maintained when products are modified in composition.

We recognize that for most of the cheese varieties considered by the CCMMP, there is a certain minimum level of fat content that has to be established in order to maintain the essential characteristics (texture and taste). The fat content of a soft cheese contributes relatively more to the texture than the fat content of a hard cheese. As a consequence, the possibilities for fat reduction should be more restrictive for soft cheeses than for harder cheeses.

United States recommended establishment of a minimum fat in dry matter content requirement, for the purpose of comparative nutritional claims, in each individual standard. Current technology allows essential product characteristics to be maintained at the recommended minimum levels.

Discussion:

See separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties.

4. FOOD ADDITIVES

4.1 General considerations

Comments submitted:

Cuba agrees with the principles for the consideration of additives (rec. no. 11 in CX/MMP 00/12)

France: Cheeses of individual standards must retain their essential characteristics and their typical nature (in particular colour, texture and taste). The current manufacturing techniques require very few additives, because traditional cheeses are concerned. It is therefore desirable to draw up a particular list of additives for each individual standard cheese. This solution would make it possible to consider the technological necessity of each substance in relation with the maintaining of the essential criteria of each cheese.

Thailand requested clarification why calcium chloride is not included in the list of permitted ingredients.

Discussion:

The approach followed so far by the CCMMP is to ensure that the additives granted for use are technologically justified for the cheese variety in question. In other words, any additive is considered on a standard-by-standard basis and inclusion is based upon the specific technological justification. However, the

conflict between the Draft General Standard for Food Additives (developed by the CCFAC) and the current additives provisions in milk product standards still exists. Inconsistencies exist between the list of additives developed by the CCMMP for ripened cheese in general (Standard A-6) and the current draft GSFA. These concern:

- number and nature of functional classes
- number and type of additives within each functional class
- maximum levels specified for individual additives
- inclusion of processing aids

Another issue is that the GSFA only addresses cheese in the broad groups (ripened, unripened) and as such do not take into account any differences in technological justification among different varieties.

At it's 33rd Session (March 2001) the CCFAC agreed to establish a Drafting Group, chaired by the US, that should prepare a Discussion Paper on the Relationship Between Codex Commodity Standards and the Codex GSFA for circulation, comment, and further consideration by the 34th Session. Further, the Drafting Group should examine the Food Category System of the GSFA to ensure a consistent interpretation of the food categories as related to the Codex Commodity Standards. It is therefore expected that clarity on the final approach to be followed in this matter will be obtained at the 34th Session of the CCFAC.

In response to request of Thailand, the reason is that calcium chloride is used as a processing aid. The 3rd CCMMP decided not to regulate processing aids in the milk product standards (see ALINORM 99/11, par. 27, 4th indent, par. 31, and par. 46)

Recommendation no 6:

While waiting for the outcome of the CCFAC elaboration with regard to the respective roles of the General Standard for Food Additives and the additive provisions in Codex commodity standards, the CCMMP should continue the current approach by establishing individual lists of additives, standard-by standard, based upon sound technological justifications.

4.2 Colours to obtain the colour characteristics

Comments submitted:

France: In light of the foregoing observations and community regulations, the French authorities are not favourable to the use of bleaching substances in individual standards (Chlorophyll 140 and Cupric Chlorophyll 141).

Discussion:

The colour of (cow´s) milk changes with the feeding material used (regional and/or seasonal differences). Where there is a need to provide products that are of a uniform colour throughout the year and/or between geographical regions, colours may be needed. It should be noted that consumers in some markets do accept seasonal variation in cheese colour.

The colours used in cheese production are mainly yellow to orange colours as they supplement the naturally occurring yellow colours in cow's milk (carotenes) which vary in relation to seasonal variation, feeding patterns and to region of production, or are used to reduce the extent of natural colour though the addition of complementary colours (de-colours), whiteners or bleaching agents. Yellow colours may also be necessary in the case of the use of milk with no naturally occurring colours (beta-carotene).

Numerical ADI-values have been specified for all colours of interest for cheese production, except INS 101 and 140. Therefore maximum levels present in the cheeses when ready for consumption are needed.

Where a uniform colour throughout the year is necessary, both yellow/red colours (to adjust a pale milk) and decolouring agents (to adjust a too yellow milk) may be needed. However, as the sub-title in section 4 states, these colours should only be used to obtain the colour characteristics of the cheese variety in question, as specified in section 2 (description of cheese) – and not to change the colour e.g. decolouring a typical yellow cheese to become fully white. Such practice will also mean that the (fully decoloured) cheese would not be in conformity with the standard, where a whitish to yellow colour is described as an identity criterion.

Suitable yellow/red colouring agents are typically riboflavin, carotenes, beta-apo-carotenal, beta-apo-8´-carotenoic acid, beet red and paprika oleoresins. Suitable de-colouring agents are typically colours complementary to naturally occurring beta-carotene (e.g. chlorophylls), the whitener titanium dioxide, and

the bleaching agent benzoyl peroxide. When used, colours and de-colours are all added to the milk prior to the renneting in order to keep a uniform distribution of colour within the cheese. In addition, a brownish colour might appear as a consequence of the Maillard reaction (brownish colouring due to heating of the lactose) despite the fact that only a small amount of lactose is available. If this happens, either a decolouring agent or a dye to mask the brownish colour may be necessary.

Recommendation no 7:

As the suitability of permitting additives should be considered on a standard-by-standard basis, no general action required. It would be advisable and helpful that future comments on the use of colours and de-colours (and other additives) are addressed for specific cheese varieties rather than for cheese in general.

However, the general approach should be that, if the principle of adjusting the colour due to seasonal/regional variation is principally permitted for a variety, both yellow/red colouring agents and de-colouring agents should be considered when establishing the additives list.

4.4 Preservatives

Comments submitted:

France requested that the use of sorbate and propionate must be examined on a standard-by-standard basis.

Germany requested deletion of INS 280-282. These substances are not permitted in EU.

United States recommended deletion of sodium nitrate and potassium nitrate from the list of preservatives in the standards where they are currently listed. US believes that the public health safety concerns associated with nitrates, such as the formation of nitrosamines in these products, outweigh any technological purpose for the use of nitrates in cheesemaking.

Discussion:

Sorbates/propionates:

Sorbic acid is used for surface and/or rind treatment of semi-soft, semi-hard, hard, and extra hard cheeses (whole cheese and cheese with open surfaces, e.g. sliced cheese) due to its preservative effect towards yeast, mould and certain bacteria. The use of sorbic acid for surface treatment facilitates the control of surface growth, and thus shelf life of the product is improved. The most essential anti microbial effect of sorbic acid is accomplished through the inhibition of some enzymes in the microbial cell. Sorbic acid is also forcibly, although unspecifically, involved in the citric acid cycle as an inhibitor of, inter alia, malate dehydrogenase and isocitrate dehydrogenase. In addition, sorbic acid forms covalent bindings with the SH enzyme groups, through its own double bonds, thus inactivating the groups. Finally, it is well known that sorbic acid is active against catalase positive microorganisms, since it has an interesting effect on catalase and on peroxidase.

In order for sorbic acid to exert its action on the microbial cell, it must cross the cell wall, and this occurs mainly when the acid is in its undissociated molecular phase. Since the proportion of undissociated sorbic acid is dependent on pH, the amount of sorbic acid, which needs to be used against a given microorganism, will also be related to the pH value.

In order to achieve a proper preservative action of sorbic acid and of sorbates an amount of 1000 mg/kg of cheese, singly or in combination, is required for surface treatment. When added to the cheese itself, a higher dosage may be needed (3000 mg/kg) to be efficient.

When considering maximum levels, it is necessary to distinguish between sorbates added to the surface of a cheese and sorbates added to the milk and/or the cheese mass.

CCFAC has endorsed both of the proposed residue levels.

Propionates:

The range of action of propionic acid and its salts cannot be precisely identified because of their non-specific behaviour, but they are especially active against yeasts and moulds, and they are therefore required to hinder the growth of these microorganisms in processed cheese and processed cheese preparations. The mode of action is not specific. When propionic acid and its salts are available at a fairly high concentration, their inhibiting action is achieved through their accumulation in the cells and through the blocking of the metabolism due to inhibition of enzymes. Bacterial development is also inhibited due to competition with other substances necessary for the growing of the specific microorganism, especially alanine and other amino acids.

The typical level of use of 3 g/kg (singly or in combination, expressed as propionic acid) is adequate to achieve the proper effect. However, ADI is "not specified", use according to GMP is appropriate. Said level is comparable to the amounts of propionic acid in certain cheeses, for example Emmental, where propionic acid, which is developed in a natural way in the cheese during maturation, may reach levels up to 4 g/kg. In such an Emmental, the addition of the "extra" propionic acid to the cheese mass has no effect as the effective level has been obtained though the activity of the fermenting bacteria; the addition is therefore not justified.

Propionates are attractive alternatives to sorbates. It should be noted, that propionates do not have any numerical ADI specified. This is not the case for sorbates. It is therefore in the interest of public health protecting to promote these alternatives to sorbates.

CCFAC has endorsed the proposed levels. The EU Directive in force permits the use of proprionates for the surface treatment of ripened and unripened cheese at Q.S.

Nitrates:

Potassium and sodium nitrates are used to prevent late blowing in cheese. In most cheese varieties which undergo a long ripening period there is the risk that anaerobic spore-forming clostridia, particularly *Clostridium tyrobutyricum*, which are not destroyed by pasteurization, may produce considerable butyric acid resulting in late blowing of the cheese, thus making it unsuitable for consumption. During the ripening period the nitrates are reduced to nitrites, which inhibit the growth of clostridia and thus prevent late blowing of the cheese. Nitrites have no effect on the growth of lactic acid bacteria.

Nitrates have been evaluated by JECFA and the findings are found in the 44th report from 1995.

The main sources of nitrates in the human diet are vegetables, meat and drinking water. Although nitrates are used in fish products and cheese as well, these sources contribute insignificantly to the human intake of nitrates.

JECFA has established an ADI of 3.7 mg/kg body weight per day and CCFAC has endorsed the proposed residue levels. Normally, CCFAC takes into account any toxicological concerns. It should be noted that a maximum level of 50 mg/kg corresponds to the max level accepted in drinking water (WHO).

Nitrates act in cheese by being decomposed into nitrite. It is well known that the presence of nitrite in the human intestines, under certain circumstances, may form nitrosamines. However, the nitrite formed during cheese ripening is decomposed rapidly. The decomposition is catalyzed by xanthinoxidase, a naturally occurring enzyme in milk. Consequently, the matured end product contains only traces of nitrites and the inhibition of *Clostridia* has been taken over by the sodium chloride content of the cheese. Accordingly, the risk of formation of nitrosamines is insignificant, and surveys have also shown that nitrosamines can only be found in cheese in very small amounts, if any, which level is far beyond the level affecting human health.

Nitrates are not technological justified for unripened cheeses.

Recommendation no 8:

No general action required.

It would be advisable and helpful that future comments on the use of preservatives (and other additives) are addressed with respect to the application to specific cheese varieties rather than to the application of the additive to cheese in general, since all the additives under consideration are allowed by the parent standards A-6 or A-19 and have been endorsed by the CCFAC.

4.5 Additives for products with nutrition claims

Comments submitted:

United States recommended that additives needed in the production of lower fat cheeses be included in each individual variety standards, and that the use be limited to cheese that have been modified to meet a nutrition claim as defined in the Codex Guidelines for Use of Nutrition Claims (the list is provided below).
Consumers in many parts of the world have expressed interest in the amount of fat that is contained in their diet. This has resulted in an increased demand for lower fat cheeses and is expected to increase even further in the future. Consequently, the US believes it is important to provide manufacturers with the technological tools needed to meet these consumer demands. These tools include the availability of a variety of safe and suitable additives that provide functional and organoleptical properties consistent with the full fat version of the cheese.

Processing aids		
290	Carbon dioxide	Limited by GMP
509	Calcium chloride	Limited by GMP
1105	Lysozyme	Limited by GMP
Acids		
260	Acetic acid, glacial	8 g/kg
270	Lactic acid (L-, D-, and DL-)	Limited by GMP
330	Citric acid	Limited by GMP
338	Orthophosphoric acid	2 g/kg, expressed as P2O5
507	Hydrochloric acid	Limited by GMP
Acidity regulators		
170i	Calcium carbonate	Limited by GMP
260	Acetic acid, glacial	8 g/kg
262i	Potassium acetate	Limited by GMP
262	Sodium acetate	Limited by GMP
263	Calcium acetate	0.2 g/kg
270	Lactic acid (L-, D-, and DL-)	Limited by GMP
325	Sodium lactate	Limited by GMP
326	Potassium lactate	Limited by GMP
327	Calcium lactate	Limited by GMP
330	Citric acid	Limited by GMP
331iii	Trisodium citrate	Limited by GMP
332ii	Tripotassium citrate	Limited by GMP
333	Calcium citrates	3 g/kg
338	Orthophosphoric acid	5 g/kg, expressed as P2O5
339	Sodium phosphates	3 g/kg, expressed as P2O5
340ii	Dipotassium orthophosphate	3 g/kg, expressed as P2O5
341	Calcium phosphates	5 g/kg, expressed as P2O5
500	Sodium carbonates	Limited by GMP
501	Potassium carbonates	Limited by GMP
504i	Magnesium carbonate	Limited by GMP
575	Glucono-delta-lactone (GDL)	Limited by GMP
Stabilizers/thickeners		
400	Alginic acid	Limited by GMP
401	Sodium alginate	10 g/kg
402	Potassium alginate	0.1 g/kg
403	Ammonium alginate	1 g/kg
404	Calcium alginate	3 g/kg
405	Propylene glycol alginate	5 g/kg
406	Agar	5 g/kg
407	Carrageenan or its Na, K, NH4 salts (includes furcelleran)	5 g/kg
410	Carob bean gum	8 g/kg
412	Guar gum	5 g/kg
413	Tragacanth gum	1 g/kg
414	Gum Arabic (Acacia gum)	10 g/kg
415	Xanthan gum	5 g/kg
416	Karaya gum	0.02 g/kg
418	Gellan gum	Limited by GMP
440	Pectins	Limited by GMP
461	Methyl cellulose	Limited by GMP
466	Sodium carboxymethyl cellulose	8 g/kg
Modified starches		
1400	Dextrins, roasted starch white and yellow	Limited by GMP
1401	Acid-treated starch	Limited by GMP

1402	Alkaline treated starch	Limited by GMP
1403	Bleached starched	Limited by GMP
1404	Oxidized starch	Limited by GMP
1405	Starches, enzyme-treated	Limited by GMP
1412	Distarch phosphate esterified with sodium trimetasphosphate;	Limited by GMP
	esterified with phosphorus-oxychloride	Limited by GMP
1413	Phosphated distarch phosphate	Limited by GMP
1414	Acetylated distarch phosphate	Limited by GMP
1420	Starch acetate esterified with acetic anhydride	Limited by GMP
1421	Starch acetate esterified with vinyl acetate	Limited by GMP
1422	Acetylated distarch adipate	Limited by GMP
1423	Acetylated distarch glycerol	Limited by GMP
1440	Hydroxypropyl starch	Limited by GMP
1442	Hydroxypropyl distarch phosphate	Limited by GMP
1450	Starch sodium octenyl succinate	Limited by GMP
Emulsifiers		
322	Lecithin	Limited by GMP
471	Mono- and di-glycerides of fatty acids	Limited by GMP
Emulsifying salts		
325	Sodium lactate	Limited by GMP
327	Calcium lactate	Limited by GMP
330	Citric acid	Limited by GMP
331iii	Trisodium citrate	Limited by GMP
332ii	Tripotassium citrate	Limited by GMP
333	Calcium citrates	30 g/kg
335ii	Sodium tartrate	Limited by GMP
337	Potassium sodium tartrates	30 g/kg single or anhydrous substances

Discussion:

An adequate and sound response to the suggestion of the US is difficult to develop at this stage, as a number of issues that significantly impact this matter are still unclear and/or unresolved. Among the outstanding issues are:

- Intention of reference to “low fat cheeses”: According to the Codex Guidelines on Nutrition Claims, a low fat cheese is cheese with max. 3% total fat, in typical firm cheeses corresponding to approx. 6% fat in dry matter. With reference to the recommended absolute minimum fat levels (see separate report) only Cheddar, Cottage Cheese and Mozzarella with low moisture content would have fat contents within that range. In any case, the allowance of any additive should not be dependent on the use of a labelling statement (e.g. “reduced fat”), but should entirely depend on the technological need,
- Whether the result of consideration with regard to whey (protein) cheeses will be to revise Standard A-7
- Whether the CCMMP will develop a standard for cheese products not covered by standard A-6 (i.e. the proposal of France on “cheese specialities”).
- Whether the relations between commodity standards and the GSFA will be further clarified

<u>Options for the CCMMP:</u>

At present, the CCMMP may have the following options:

1. Defer further debate on additives to the next CCMMP. If the above mentioned issues are clarified further at this stage, the CCMMP will have a better foundation for choosing an appropriate approach
2. Revisit the additive list in Standard A-6 (which applies to ripened cheeses, only) with particular focus on cheese with fat levels below e.g. 20% Fat in Dry Matter.
3. Using the current approach and principles for including additives in individual standards.

In the following, the various groups of additives suggested are discussed according to option 3 above, taking into account the current draft GSFA.

Processing aids:

The 3rd CCMMP decided not to regulate processing aids in milk product standards. However, the approach to processing aids is on the programme of work of the CCFAC. Lysozyme is not a processing aid in cheese (as its preservative effect is valid after processing). It is therefore regulated as a preservative in the GSFA. Lysozyme is not technologically justified for Cottage Cheese and Cream Cheese. As lysozyme is already listed in most standards, is allowed by Standards A-6 for ripened cheeses and by GSUC, and is included in the current GSFA, it should be added to the additives list in the draft standards for Cheddar and Mozzarella.

General principles used for inclusion of additives:

In CX/MMP 00/12, some principles to guide the identification of additives in cheese standards were provided. These seem to be supported by CCMMP as only positive reactions have been submitted (e.g. Cuba). The additives requested by the US are therefore discussed according to the following principles:

- All requests for additives with no numerical ADI specified should be included, provided it's functional class has already been inserted in the Draft Standard,
- Insertion of additional functional classes shall be technologically justified (class by class).
- Additives with numerical ADI-values shall be justified individually as to whether they should be permitted and, if so, at which maximum level.

Acids:

The list of acids should be allowed for unripened cheese varieties and for Cheddar with less than 20 % FDM. These agents have functions that may be needed in lower fat cheeses. As a numerical ADI has been specified for INS 338, a maximum level is required. The level suggested (2 g/kg, expressed as P_2O_5) is adequate.

Acidity regulators:

Many of the additives requested are multifunctional. Lactates, citrates, phophates and acetates are not permitted as acidity regulators by the parent standard for ripened and unripened cheeses, respectively. It should be noted that citrates may also act as sequestrants. Acetates also act as preservatives, phosphates also act as sequestrants and emulsifiers. Only lactates act solely as acidity regulators.

As a general guidance, GDL, lactates, carbonates and phosphates should be permitted to unripened cheeses and lower fat Cheddar, according to GMP. As a numerical ADI has been specified for phosphates, a maximum level is required. The level suggested (3 g/kg, expressed as P_2O_5) is adequate.

Stabilizers/thickeners:

The stabilizers not already listed and permitted by the GSUC should be added in the additives lists of Cottage Cheese, according to GMP (i.e. INS 406, 440 and 466). However, a statement that these should not replace milk constituents may be necessary (see GSUC)

Modified starches:

As they act as stabilizers, the modified starches should be included for Cottage Cheese to the extent they are permitted by the parent GSUC (i.e. the list provided by the US except INS no. 1423 and 1450). However, a statement that these should not replace milk constituents may be necessary (see GSUC).

Emulsifiers:

No emulsifiers are permitted in the parent standards for unripened or ripened cheeses.

Emulsifying salts:

The functional group is not needed for any cheese, and would turn the cheese into processed cheese.

Recommendation no 9:

Cheddar:

- Make the following changes: Add a new functional class for "acids" for products with less than 20% FDM, and list the following individual additives: INS no. 260, 270, 330, and 507 as limited by GMP and INS 338 limited at max. 2 g/kg, expressed as P_2O_5
- Add a new functional class for "acidity regulators" for products with less than 20% FDM, and list the following individual additives: INS no. 170, 325, 326, 327, 500, 501, 504 and

575 as limited by GMP and INS no. 339, 340ii and 341 limited at max. 3 g/kg, expressed as P_2O_5.

Cottage Cheese:

Make the following changes:

- Acids: Add INS no. 338, max. 2 g/kg, expressed as P_2O_5
- Acidity regulators: Add INS no. 170, 325, 326, 327, 500, 501 and 504 as limited by GMP and INS no. 339, 340ii and 341 limited at max. 3 g/kg, expressed as P_2O_5.
- Stabilizers: Add INS no. 406 and 440, and the modified starches listed except INS 1423 and 1450. Add also the following statement: "*Stabilizers and thickeners may be used in compliance with the definition for milk products and only to the extent they are functionally necessary*."
- Emulsifiers: Delete lecithin

Mozzarella:

Make the following changes:

- Acids: Amend the maximum level for INS no. 338 into max. 2 g/kg, expressed as P_2O_5
- Acidity regulators: Add INS no. 170, 325, 326, 327, 500, 501 and 504 as limited by GMP and INS no. 339, 340ii and 341 limited at max. 3 g/kg, expressed as P_2O_5

4.6 Sliced, cut, shredded or grated cheese

Comments submitted:

Canada noted that is has submitted technological justification for the use of Pimaricin (235) in sliced, cut, shredded or grated cheese to CCFAC in October 1999. If accepted by CCFAC, Canada requests this preservative is added for these products.

Cuba agreed that Pimaricin is not allowed for sliced, cut, shredded or grated products

France requested that the use of these agents must be examined on a standard-by-standard basis.

Germany shared the opposing view with respect to the use of Pimaricin in cheese.

Spain: "granulated or powdered" cheeses should be added to the group of products specified.

Sweden questioned the need for these additives in Cream Cheese

United States recommended the inclusion of Pimaricin in each C-standard, except C-15, at a maximum level of 20 mg/kg applied to the surface of the cheese. Natamycin is a polyene antimycotic which is fungicidal. It is equally effective against yeast and mold, but has no effect on bacteria. Several countries have approved its use in various foods. Natamycin has been used for over 30 years in providing extended shelf life to a variety of foods through the elimination of yeasts and molds, and the inhibition of mycotoxin development. Technological justification for this additive has been provided to the CCFAC.

Discussion:

Pimaricin:

The 4th CCMMP debated this issue intensively and referred it to the CCFAC for consideration. CCFAC has referred the request to JECFA for scientific evaluation. The 24th Session of the CAC adopted on a temporary basis the use of pimaricin as added to the cheese mass of unripened cheese, pending continued JECFA evaluation.

Granulated and powdered cheese:

Granulated is similar to grated and could be added in brackets. It should be noted that standard A-6 does include the same wording. Following the Spanish request may create confusion. Cheese powder is significantly different from cheese and should be considered as a different food category (as is the case with e.g. processed cheese).

Recommendation no 10:

Pimaricin:

The CCMMP should consider permitting the use of pimaricin for cut, sliced, shredded or grated products in the standards for unripened cheese varieties taking into account any variety specific technological

justifications available. If included, the maximum levels adopted for unripened cheese in general should apply.

Note: *In the revised draft standards for unripened cheese varieties presented in the attachment to this report, pimaricin has been included only in the standard for Cream Cheese and not in the standards for Cottage Cheese or Mozzarella.*

7.1 Name of the food

Comments submitted:

Cuba agreed with the text recommended

Denmark supported the labelling principles as proposed by the IDF in support of the approach made to the compositional section (format). The system recommended by IDF seems sensible and workable (a reference level, adequate qualifiers for deviations from that level, and a permitted range of fat contents). We agree that the reference fat level should be established on a case-by-case basis, as it is an essential characteristic of any individual variety.

Netherlands: (see comments to the standards for Edam and Gouda)

Spain stated the following:

- If the absolute minimum fat level coincides with the reference level, it will never be possible to apply a name relative to a percentage of fat between the reference level and the minimum. For this reason, we propose that the phrased "… outside the reference level but within the minimum/maximums specified in Section 3.3" be replaced by "… outside the reference level but within the maximum specified in Section 3.3". (Pertains to C-1)
- If, additionally, no maximum for fat is fixed in the standard, then the entire phrase "… outside the reference level but within the minimum/maximums specified in Section 3.3" is superfluous, since a non-existent maximum will never be exceeded. (Pertains to C-1, C-5, C-9, C-13, C-18))
- If only no maximum fat has been fixed, the reference to exceeding such a maximum will be superfluous. (Pertains to C-3, C-4, C-6, C-7, C-11, C-15, C-16, C-34, Mozzarella)

Discussion:

The text needs to adapt to the limitations provided in section 3.3.

Consequently, two scenarios may occur as follows:

a) The reference level coincides with the absolute minimum fat content (i.e. no reduced fat versions allowed). According to the results of the separate Report no. 1 on Establishment of Absolute Minimum Contents of Fat in Dry matter, this will be the case for Emmental, Saint-Paulin, Provolone and Coulommiers,

b) The reference level is above the absolute minimum fat content specified in section 3.3; According to the results of the separate Report no. 1 on Establishment of Absolute Minimum Contents of Fat in Dry matter, this will be the case for Cheddar, Danbo, Edam, Gouda, Havarthi, Samsoe, Tilsiter, Cream Cheese, Camembert, Brie and Mozzarella.

Cottage Cheese constitutes a special case in wherefore the above scenarios would not occur

Recommendation no 11:

Replace existing wording with one of the following, as appropriate:

Scenario (a) (reference = absolute minimum):

"The designation of products in which the fat content is above the reference range specified in section 3.3 of this Standard shall be accompanied by an appropriate qualification describing the modification made or the fat content (expressed as fat in dry matter or as percentage by mass), either as part of the name or in a prominent position in the same field of vision. Suitable qualifiers are the appropriate characterizing terms specified in Section 7.3 of the Standard for Cheese (A-6).

Scenario (b) (reference > absolute minimum):

"The designation of products in which the fat content is below or above the reference range but above the absolute minimum specified in section 3.3 of this Standard shall be accompanied by an appropriate qualification describing the modification made or the fat content (expressed as fat in dry matter or as

*percentage by mass), either as part of the name or in a prominent position in the same field of vision. Suitable qualifiers are the appropriate characterizing terms specified in Section 7.3 of the Standard for Cheese (A-6) or a nutritional claim in accordance with the Guidelines for the Use of Nutritional Claims.**

**) For the purpose of comparative nutritional claims, the (insert reference fat level) fat in dry matter constitutes the reference."*

7.2 Country of origin

Comments submitted:

Cuba agreed with the text recommended

Denmark: ***In some cases, shredding and grating is regarded as a substantial transformation***

France: The indication of the country of origin provides additional information and helps avoid risks of confusion for the consumer. To attain the desired goal, this indication should be near the trade name and in easily visible and legible characters.

Germany did not share the view that a provision for declaring the country of origin is necessary in all standards for individual cheeses. There is no sufficient justification to deviate from the principle laid down in 4.5.1 of the GSLPF because the cheese varieties covered by the individual standards have become of significant importance in international trade and their names must be considered as generic names. Germany suggests relying on the text included in CL 1997/36:

> *"The country of origin (which means the country in which the cheese was manufactured, not the country in which the variety first originated) shall be declared taking into account Section 4.5 of the General Standard for the Labelling of Prepackaged Foods."*

The provision on substantial transformation, too, is unnecessary as this case is covered by section 4.5.2 of the GSLPF.

Spain: At present, there is no definition as to what is meant by "substantial processing" (only a few examples of transformation are given which are not considered substantial) and, in our opinion, such transformation is what brings about a change in the nature of the product (for example, transformation into processed cheese). If it is so, there can be no talk of country about the origin, because the product is no longer the initial product. The text should be replaced by the following:

> *"When the product is packaged, cut, cut in slices, grated and granulated in another country, the country of origin will then be considered that in which the product was prepared, and the country in which the aforementioned operations were carried out will also be indicated."*

Discussion:

<u>The principle of labelling the country of origin.</u>

The 3rd CCMMP decided to remove the provision from the Draft Standard A-6. However, "*the Committee <u>agreed</u> that for labelling purposes, the declaration of the Country of Origin referred to the country of production or last transformation of the product and not to the country in which the variety was first developed. The Committee <u>decided</u> that the individual cheese standards would be examined on a case-by-case basis regarding the application of the "country of origin" to ensure that the consumer would not be misled*" (quotation from ALINORM 99/11, par. 27).

In order to prepare the Committee for this examination, the IDF included an adequate wording in all the proposed draft C-standards that were presented in CX/MMP 00/12 (see Recommendation no. 18 of that document and the discussion leading to it).

The CCMMP is invited to, in light of the above decision in Montevideo, to examine which of the individual cheese varieties covered by the current draft standards should be declared with regard to country of origin.

<u>Substantial transformation.</u>

The GSLPF uses the term "changed nature" while customs texts use "substantial transformation". The broader of these two terms is without doubt the one specified in the GSLPF. Use of the term "substantial transformation" seems to enable a more practical interpretation if supplemented by a clarifying footnote.

Recommendation no 12:

The CCMMP should in accordance with its decision in Montevideo examine which of the cheese varieties should be declared with the country of origin, and where applicable, whether the current draft wording is adequate.

7.4 List of ingredients

Comments submitted:

Canada supported the proposal either to include the text recommended or to establish a class name in the GSLPF. A class name is preferred, as this will allow the use of a class name in foods where cheese is an ingredient.

Cuba agreed with either of the options recommended

Discussion:

The 4th CCMMP debated the same issue in relation to unripened cheeses and decided to refer the matter to the CCFL.

Recommendation no 13:

Delete the paragraph.

7.5 Date marking

Comments submitted:

Cuba agreed with the text recommended

Recommendation no 14:

No action required

REVIEW OF THE SPECIFIC PROVISIONS

CHEDDAR (C-1)

SECTION 2 – DESCRIPTION

Government comments:

Germany: Ripening time should be at least 3 months.

Discussion:

See separate report on "Review Details in Standards for Individual Cheese Varieties".

SECTION 3.3 – COMPOSITION

Government comments:

Germany: We propose the following values:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	45%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 45%		60%
	min. 50%		62%

Japan proposed as follows:

1. Reference level of milkfat in dry matter shall be changed to "45% to 55%".
2. The minimum content of milkfat in dry matter shall be changed to "35%" because there are potential needs for low fat products.

Discussion:

According to the result of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 1% has been inserted. This would also meet the request of Japan with respect to absolute FDM content. The figures suggested by Germany are consistent with respect to MFFB and has been included as well.

A reference level of 48% has been established in the existing (unrevised) standard for Cheddar and has subsequently been implemented in national standards in many countries.

Recommendation no. 15:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	1%	Not restricted	48-55%
Dry matter	Depending on the fat in dry matter content, according to the table below:		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 1% but less than 10%		42%
	Equal to or above 10% but less than 20%		46%
	Equal to or above 20% but less than 25%		49%
	Equal to or above 25% but less than 30%		51%
	Equal to or above 30% but less than 35%		53%
	Equal to or above 35% but less than 40%		55%
	Equal to or above 40% but less than 45%		57%
	Equal to or above 45% but less than 48%		60%
	Equal to or above 48% but less than 50%		61%
	Equal to or above 50% but less than 55%		62%
	Equal to or above 55%		64%

DANBO (C-3)

SECTION 2 – DESCRIPTION

Government comments:

Uruguay suggested referring to that Danbo is a "washed" cheese, by which one third of the whey is removed and hot water is added for the process and for heating the cheese curd.

Discussion:

No technical definition of "washed cheese" is available. Although the method referred to is practiced, it is not the only way of achieving the characteristics of Danbo. Adoption would introduce unnecessary, and hardly controllable, restrictions.

Recommendation no. 16:

No action required

SECTION 3.3 – COMPOSITION

Government comments:

Denmark requested that the min. dry matter content for Danbo with 45-55% fat in dry matter be amended from 52% to 50%. The reason is a recently agreed change in the Danish standard for this variety.

Uruguay considers the ranges for fat and moisture too high

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 20% has been inserted.

With regard to the comment of Uruguay, the figures are based upon information from manufacturers of Danbo.

The Danish suggestion can be followed, as the product would still comply with the description in section 2 (firm cheese).

Recommendation no. 17:

Taking into account the above report and Rec. no. 4, insert the following table:

Amend the min. dry matter content for Danbo 45-55% FDM into 50%.

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	20%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below:		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 20% but less than 25%		41%
	Equal to or above 25% but less than 30%		42%
	Equal to or above 30% but less than 35%		44%
	Equal to or above 35% but less than 40%		46%
	Equal to or above 40% but less than 55%		50%
	Equal to or above 55%		57%

EDAM (C-4)

SECTION 2 – DESCRIPTION

Government comments:

Germany: A ripening time of three weeks is not sufficient, it should be five weeks. The second and the third sentence referring to alternative ripening conditions and products intended for further processing should be deleted

Discussion:

See separate report on "Review Details in Standards for Individual Cheese Varieties".

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

Germany: Safe and suitable enzymes to enhance the ripening process should be deleted as explained in the general comments (see above).

Discussion:

See separate report on "Review Details in Standards for Individual Cheese Varieties".

SECTION 3.3 – COMPOSITION

Government comments:

Germany stated that the system of presentation is supported for all cheese varieties. There is no justification for deviations in Edam. Germany proposed the following values:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	45%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 30% and less than 35%		minimum 49%
	min. 35% and less than 40%		minimum 51%
	min. 40% and less than 45%		minimum 53%
	min. 45% and less than 50%		minimum 55%
	min. 50% and less than 60%		minimum 57%

Netherlands proposed to retain the existing standard regarding compositional characteristics of Edam, especially the minimum fat content of 40% in dry matter.

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 30% has been inserted.

The suggestion of Germany to increase the dry matter content at all FDM levels by generally 2% above the current figures would exclude major parts of the Edam currently produced from the standard. The figures appeared in an earlier draft where they applied to Edam of weights below 2 kg (Baby Edam). IDF recommended earlier that no differentiation according to weight should apply and recommend the figures as now included in the draft standard. If the German proposal were to be adopted, it would be necessary to re-introduce a separation according to weight.

Recommendation no. 18:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	1%	Not restricted	48-55%
Dry matter	Depending on the fat in dry matter content, according to the table below:		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 30% but less than 35%		47%
	Equal to or above 35% but less than 40%		49%
	Equal to or above 40% but less than 45%		51%
	Equal to or above 45% but less than 55%		55%
	Equal or above 55%		58%

SECTION 7.1 – NAME OF THE FOOD

Government comments:

Netherlands stated that, in their opinion, only cheese with the characteristics of Edam and a fat content of at least 40% in dry matter (w/w) may be designated Edam. It should be excluded to name a cheese Edam when the fat content is below 40%, not even with qualifiers like "reduced fat" or "light". Although we realize that this is a deviation from the General Standard for the labelling of Prepacked Foods, this statement is in accordance with article 4.3.3 of the general Standard for the Use of Dairy Terms. For this reason the request to delete the second paragraph from section 7.1.

Discussion:

With reference to Rec. no. 11, the wording should be in line with the compositional requirements in section 3.3.

Recommendation no. 19:

Replace existing wording with the one recommended in Rec. no. 11, indent (b).

SECTION 7.2 – COUNTRY OF ORIGIN

Government comments:

Germany: In accordance with our general comments on this issue, we propose the following modification:

"The country of origin (which means the country in which the cheese was manufactured, not the country in which the variety first originated) shall be declared taking into account Section 4.5 of the General Standard for the Labelling of Prepackaged Foods."

Discussion:

See Rec. no. 12.

APPENDIX

Government comments:

Germany: The appendix contains descriptions that are not in line with the generally accepted view and should be deleted.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

GOUDA (C-5)

SECTION 2 – DESCRIPTION

Government comments:

Germany: A ripening time of 3 weeks in not sufficient; it should be 5 weeks. The second and the third sentence referring to alternative ripening conditions and products intended for further processing should be deleted.

Discussion:

See separate report on "Review of Details in Standards for Individual Cheese Varieties".

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

Germany: Safe and suitable enzymes to enhance the ripening process should be deleted (see above).

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 3.3 – COMPOSITION

Government comments:

France: In view of the different types of Gouda cheese currently on the market, the minimum fat content in relation to dry matter should be fixed at 45% and the dry matter at 51%. These criteria should be independent from the weight of the cheese.

Germany stated that the system of presentation is supported for all cheese varieties. There is no justification for deviations in Gouda. Germany proposed the following values:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 30% and less than 35%		minimum 49%
	min. 35% and less than 40%		minimum 51%
	min. 40% and less than 45%		minimum 53%
	min. 45% and less than 50%		minimum 55%
	min. 50% and less than 60%		minimum 57%

Japan proposed as follows:

1. Reference level of milkfat in dry matter shall be changed to "45% to 55%".
2. The minimum content of milkfat in dry matter shall be changed to "35%" because there are potential needs for low fat products.

Netherlands proposed to retain the existing standard regarding compositional characteristics of Gouda, especially the minimum fat content of 48% in dry matter.

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 30% has been inserted. This would also meet the request of Japan with respect to absolute FDM content.

The additional FDM categories suggested by Germany have been included as well with corresponding dry matter contents that are consistent with the dry matter content specified other FDM categories.

A reference level of 48% has been established in the existing (unrevised) standard for Gouda and has subsequently been implemented in national standards in many countries.

The suggestion of Germany to increase the dry matter content at all FDM levels by generally 1% above the current figures would exclude major parts of the Gouda currently produced from the standard. The figures appeared in an earlier draft where they applied to Gouda of weights below 2 kg (Baby Gouda). IDF recommended earlier that no differentiation according to weight should apply and recommend the figures as now included in the draft standard. If the German proposal were to be adopted, it would be necessary to re-introduce a separation according to weight.

Recommendation no. 20:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	48-55%
Dry matter	Depending on the fat in dry matter content, according to the table below:		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 30% but less than 35%		48%
	Equal to or above 35% but less than 40%		50%
	Equal to or above 40% but less than 45%		52%
	Equal to or above 45% but less than 48%		54%
	Equal to or above 48% but less than 50%		55%
	Equal to or above 50% but less than 55%		56%
	Equal to or above 55% but less than 60%		60%
	Equal or above 60%		62%

SECTION 7.1 – NAME OF THE FOOD

Government comments:

Netherlands stated that, in their opinion only cheese with the characteristics of Gouda and a fat content of at least 40% in dry mater (w/w) may be designated Gouda. It should be excluded to name a cheese Gouda when the fat content is below 48%, not even with qualifiers like "reduced fat" or "light". Although we realize that this is a deviation from the General Standard for the labelling of Prepackaged Foods, this statement is in accordance with article 4.3.3 if the general Standard for the Use of Dairy Terms. For this reason the request to delete the second paragraph from section 7.1.

Discussion:

With reference to Rec. no. 11, the wording should be in line with the compositional requirements in section 3.3.

Recommendation no. 21:

Replace existing wording with the one recommended in Rec. no. 11, indent (b).

SECTION 7.2 – COUNTRY OF ORIGIN

Government comments:

Germany: In accordance with our general comments on this issue, we propose the following modification:

"The country of origin (which means the country in which the cheese was manufactured, not the country in which the variety first originated) shall be declared taking into account Section 4.5 of the General Standard for the Labelling of Prepackaged Foods."

Discussion:

See Rec. no. 12.

APPENDIX

Government comments:

Germany: The appendix should be deleted.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

HAVARTI (C-6)

SECTION 3.3 – COMPOSITION

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 30% has been inserted.

Recommendation no. 22:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below:		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 30% but less than 35%		46%
	Equal to or above 35% but less than 40%		47%
	Equal to or above 40% but less than 45%		48%
	Equal to or above 45% but less than 55%		50%
	Equal to or above 55% but less than 60%		54%
	Equal or above 60%		58%

APPENDIX

Government comments:

Denmark suggested simplifying indent 1.1(a) in the Appendix by replacing ”weight 0.2 kg to 1.5 kg” with ”weight below 2 kg”.

Discussion:

See separate report on “Review of details in Standards for Individual Cheese Varieties”.

SAMSOE (C-7)

SECTION 3.3 – COMPOSITION

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 30% has been inserted.

Recommendation no. 23:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below:		
	Fat in dry matter content (w/w)	Corresponding min. dry matter content (w/w)	
		Samsø	***Mini Samsø***
	Equal to or above 30% but less than 35%	46%	46%
	Equal to or above 35% but less than 40%	48%	47%
	Equal to or above 40% but less than 45%	52%	49%
	Equal to or above 45% but less than 55%	54%	52%
	Equal or above 55%	59%	57%

EMMENTAL (C-9)

SECTION 2 – DESCRIPTION

Government comments:

France: The presence of holes must be made compulsory. For this is an essential characteristic for the identity of the cheese resulting from the use of propionic ferments, the production technique as well as extended ripening under appropriate conditions.

Aside from whole cheeses, the minimum weight of which is fixed at 60 kg, for other forms, the minimum weight of the cheese should be fixed at 40 kg instead of 20 kg.

In order to maintain its characteristics, the way this cooked, pressed soft cheese is made requires an important quantity of curds for the cheese to cool slowly and thus promote the development of the specific thermophilic flora that has an essential influence on the characteristics of the finished product (taste, crust, holes, etc.).

It is necessary to complete the second indent to specify that the ripening period is normally 2 months and at least 6 weeks, irrespective of the ripening conditions (cf. recommendation no 3).

As indicated in the preceding observations on recommendation no 3, the last sentence of this paragraph ("Emmental is intended …. ripening") must be deleted, because to bear the name reserved for an individual standard cheese, all the conditions of production, and in particular the ripening period, must be met.

Germany supported the clarification with respect to ripening films. However, the German Government considers it appropriate to complement the third sentence by the final sentence of Section 2: "The cheese is sold with a hard rind. Emmental of block shape is also manufactured and sold without rind, eventually manufactured by the use of ripening films." The specification "20 kg" should be replaced by "40 kg" in the sentence "other shapes and weights above 40 kg are possible."

Discussion:

Holes:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Weights:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Ripening procedure and ripening films:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Recommendation no. 24:

In the 3rd sentence, replace the word "eventually" with "possibly" (editorial)

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

France submitted the following comments:

Starter cultures: In the French version, the terms « agents modificateurs du goût » [taste modifying agents] must be replaced by « bactéries productrices d'arômes » [flavour producing bacteria].

Water added after the uncurdling should be limited to 15% of the volume of the milk used.

Ingredients with anti-caking functions: As Emmental is a hard cheese, rich in dry matter, it is not necessary to authorize the use of " rice, corn, wheat and potato flours and starches" as anti-caking agents.

Discussion:

The proposal to restrict addition of water constitutes an unnecessary restriction. Addition of water (processing aid) is one of many tools to control the manufacturing process. Different amounts of water will trigger alterations in other factors accordingly. The right combinations provide the right outcome.

It is questionable whether Emmental differs from other hard cheeses (e.g. Cheddar) with respect to the need for anti-caking agents, in particular for shredded and grated Emmental. This is should subject to further investigations.

Recommendation no. 25:

The French version should be corrected with regard to starter cultures.

No action with regard to water is required.

Whether flours and anti-caking agents should be deleted is subject to further review. Meanwhile, flours and anti-caking agents have been put in square brackets.

SECTION 3.3 – COMPOSITION

Government comments:

France: The French authorities confirm their support for fixing a minimum fat content in dry matter at 45%, as this value will have to constitute an absolute minimum. To retain the characteristics of the cheese, it is not desirable to provide versions with a fat content higher than 55%. In conclusion, cheese marketed under the name « Emmental » should necessary have a fat content in dry matter between 45 and 55%.

Germany proposed the following values:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	45%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 45%		minimum 60%

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 45% has been inserted.

Recommendation no. 26:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	45%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 45% but less than 55%		60%
	Equal to or above 55%		63%

SECTION 3.4 – ESSENTIAL MANUFACTURING CHARACTERISTICS

Government comments:

France: The French authorities underscore that they are in favour of a requirement to heat the curds at a minimum temperature of 50 °C, independently from the heat treatment applied to the milk used. This temperature is necessary for the selection and proper development of thermophilic ferments, during the pressing and acidifying of the curds, the formation of holes and the sensory properties of the cheese (texture, flavour) acquired through ripening.

Germany: The additional text in brackets should be deleted, the second sentence should be reduced to "The curd is heated after cutting" because there is no justification for the addition in brackets and the product identity is ensured by the description in Section 2.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 4 – ADDITIVES

Government comments:

France made the following comments:

Colours: The addition of colorants or bleaching substances is not necessary in this cheese. The absence of such substances confers on the cheese its natural characteristic colour.

Preservatives: The use of sorbic acid and of calcium and potassium sorbates or propionic acid and sodium or calcium propionate in milk has no technological justification, because it is a cheese subjected to prolonged ripening with high dry matter. These products have been considered as cheeses that keep well.

Discussion:

Colours:

See the discussion leading to Rec. no. 7. However, as decolouring agents are not used in practice, it seems appropriate to delete them from the list.

Preservatives:

As these preservatives are not used in practice, it seems appropriate to delete them from the list.

Recommendation no. 27:

Delete decolouring agents, sorbates and propionic acids from the list of additives

SECTION 7.1 – NAME OF THE FOOD

Government comments:

France: The section concerning the particular labelling of the cheeses whose fat content is modified in relation to the reference values is not necessary, since the fat content of emmental should be in the bracket mentioned above, i.e. between 45 and 55%.

Recommendation no. 28:

Replace existing wording with the one recommended in Rec. no. 11, indent (a).

SECTION 7.2 – COUNTRY OF ORIGIN

Government comments:

Germany: In accordance with our general comments on this issue, we propose the following modification:

"The country of origin (which means the country in which the cheese was manufactured, not the country in which the variety first originated) shall be declared taking into account Section 4.5 of the General Standard for the Labelling of Prepackaged Foods."

Discussion:

See Rec. no. 12.

APPENDIX

Government comments:

France: Usual dimensions: Insofar as the weight of the cheeses is fixed in the body of the standard, there is no need to indicate it again in the appendix.

Germany: The appendix should be deleted.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

TILSITER (C-11)

SECTION 3.3 – COMPOSITION

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 30% has been inserted.

Recommendation no. 29:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 30% but less than 35%		49%
	Equal to or above 35% but less than 40%		51%
	Equal to or above 40% but less than 45%		53%
	Equal to or above 45% but less than 50%		55%
	Equal to or above 50% but less than 55%		57%
	Equal to or above 55% but less than 60%		59%
	Equal to or above 60%		61%

SAINT PAULIN (C-13)

SECTION 2 – DESCRIPTION

Government comments:

France: As indicated in regard to Emmental (C-9), the last sentence of the second paragraph («Saint-Paulin … degree of ripening » must be deleted.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

France: Introduce the appropriate innocuous enzymes that stipulate the ripening process.

Recommendation no. 30:

Adopt the proposal. However, see also separate report on "Review of details in Standards for Individual Cheese Varieties"

SECTION 3.3 – COMPOSITION

Government comments:

France: The minimal fat/dry matter content should be fixed at 40% and the minimum dry matter at 44%.

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 40% has been inserted. This would also be in accordance with the French request.

Recommendation no. 31:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	40%	Not restricted	40-50%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 40% but less than 50%		44%
	Equal to or above 50% but less than 55%		48%
	Equal to or above 55% but less than 60%		51%
	Equal to or above 60%		54%

SECTION 4 – ADDITIVES

Government comments:

France: The addition of bleaching substances is not justified in this cheese.

Discussion:

See discussion leading to Rec. no. 7. However, as decolouring agents are not used in practice, it seems appropriate to delete them from the list.

Recommendation no. 32:

Delete decolouring agents.

APPENDIX

Government comments:

France: With regard to point 1.2 (Size and weight):

(a) For the usual variants, specify a minimum of 1.3 kg

(b) For the small Saint-Paulin, specify a minimum weight of 150g

Discussion:

These specifications have already been included. See separate report on "Review of details in Standards for Individual Cheese Varieties".

Recommendation no. 33:

Align the French version with the English one.

PROVOLONE (C-15)

SECTION 2 – DESCRIPTION

Government comments:

Germany: The ripening time should be generally 15 days.

Spain pointed out a translation error as follows: The third paragraph of Section 2. Description, is translated in Spanish incorrect and should be replaced by the following:

"Provolone is made using the "pasta filata" process, which consists of heating the curd with an adequate pH value before submitting it to a subsequent mixing and drawing treatment until the curd is smooth and without clots. The curd, while hot, should be cut and put in moulds, where it will be hardened using cold water or brine. Other production techniques that guarantee a final product with the same physical, chemical and organoleptic characteristics are also authorized."

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Recommendation no. 34:

Correct the Spanish version.

SECTION 3.3 – COMPOSITION

Government comments:

Germany suggested the following: The differentiation between the categories "mild" and "Aged" for minimum dry matter content (m/m) is too subtle. We suggest the following values for minimum dry matter content (m/m):

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 30% and less than 40%		minimum 49%
	min. 40% and less than 45%		minimum 51%
	min. 45% and less than 50%		minimum 53%
	min. 50% and less than 60%		minimum 55%

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 45% has been inserted.

The compositional difference between the two types is very slight and it would appear that there is no compelling reason to differentiate between mild and aged forms of provolone. This is especially true since this compositional difference has no formal link to the product's labelling. To ensure that all Provolone currently sold on the market is covered, the dry matter figures as specified for the current "mild" version should apply.

Recommendation no. 35:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	45%	Not restricted	45-50%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 40% but less than 45%		44%
	Equal to or above 45% but less than 50%		51%
	Equal to or above 50%		56%

SECTION 3.4 – ESSENTIAL MANUFACTURING CHARACTERISTICS

Government comments:

Germany: Indication of specific starter cultures is not necessary in Standards for individual cheese varieties.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 4 – ADDITIVES

Government comments:

France: The addition of colorants and bleaching substances is not justified in this cheese

Discussion:

See discussion leading to Rec. no. 7. However, as decolouring agents are not used in practice, it seems appropriate to delete them from the list.

Recommendation no. 36:

Delete decolouring agents from the list.

APPENDIX

Government comments:

Germany stated that the specifications in the appendix are too detailed and should be deleted

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

COTTAGE CHEESE (C-16)

TRANSLATION INTO SPANISH

Government comments:

Spain stated as follows:

a) Title: Cottage cheese – is translated in Spanish by "Requesón" [whey cheese], thus the title of the Standard in Spanish should be "ANTEPROYECTO REVISADO DE NORMA PARA EL REQUESÓN" [REVISED DRAFT STANDARD FOR COTTAGE CHEESE].

b) In Sections 1,2,3.3, and 7.1 for the same reason, the terms "Cottage Cheese" and "Cottage Cheese cremoso" should be replaced by "Requesón" and "Requesón cremoso" respectively.

c) In Section 2. Lines 3 and 4, appears the word "requesón" which is an incorrect translation of the words "caille" in French and "curd" in English, whereas the **correction translation is "CUAJADA"** and this word should replace "requesón".

Discussion

The correct Spanish name for Cottage Cheese is "Queso Cottage". The name "requeson" is a whey cheese.

Recommendation no. 37:

Translate Cottage Cheese into "Queso Cottage" and correct the translation of "curd" into "cuajada" in the Spanish version.

SECTION 3.3 – COMPOSITION

Government comments:

Germany expressed concerns about specifying the minimum fat content of Creamed Cottage Cheese as low as 4% due to the risk of misleading the consumer. As minimum dry matter content for cottage cheese we propose 18% instead of 20%.

Spain did not consider it acceptable to standardize a cheese with a composition (Section 3.3) in which the percentage of minimum fat/dry extract is fixed, but the maximum content is not determined, not the reference level specified.

United Kingdom requested that the 0% reference value for the minimum fat content be changed to the full-fat value to permit "reduced fat" claims for future low-fat versions.

Discussion:

Dry matter content:

Given the long history of Cottage Cheese DM at 20%, it is difficult to find justification for a lower value. Cottage Cheese is a typical variety favoured by dieters and those interested in a lowfat, high protein food.

It will be easier to resolve the issues raised both by Germany and the UK by recommending different qualifiers, as follows:

- ***Cottage Cheese*** (formerly "creamed cottage cheese") that would have a minimum milkfat content of 4%, and
- ***Dry Curd Cottage Cheese*** (formerly "cottage cheese") that would have a minimum milkfat content of "none".

The reference fat level for comparative claims would be 4%. A 4% total fat corresponds to 20% fat in dry matter. As a consequence, products with 3% could be claimed as "lowfat", "reduced fat" or "light". From a labelling perspective, the term "dry curd" could be omitted if it's omission would not be confusing in the country of sale.

This would eliminate mandatory inclusion of the term "Creamed" and any resulting confusion. However, the term "Creamed" (or some other term, e.g., "Full Fat") could be used as an optional qualifier to further describe the product, if necessary, as the term "Creamed" refers to textural (creamy) features. I believe this approach (or some variation) could be a reasonable response to the issues raised by Germany and the UK.

See also Rec. no. 39.

Max. fat content:

See Rec. no. 5.

Recommendation no. 38:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat:			
- Cottage Cheese	4%	Not restricted	4%
- Dry Curd Cottage Cheese	None	below 4%	4%
Dry matter			
- Cottage Cheese	20%	Restricted by the MFFB	
- Dry Curd Cottage Cheese	24%	Restricted by the MFFB	

Section 7.1 of the draft standard should be amended accordingly.

SECTION 7.1 – NAME OF THE FOOD

Government comments:

Spain requested clarification, taking due account of the last paragraph of Section 7.1, that there would be a difference affecting the comparative nutritional allegations, between a creamy cottage cheese with 4% and one with 0% fat/dry extract.

Discussion:

See discussion of the comment by the UK leading to Rec. no. 38.

Recommendation no. 39:

Insert the following statement after the 1st para. of Section 7.1 of the Standard:

"*The term "dry curd" may be omitted in the name of the product, if the omission would not be confusing to the consumer in the country of retail sale*."

Further, insert the following at the end of Section 7.1. of the Standard_

"*The qualifiers "creamed" or "full fat" may be used for products with fat contents of 4% or above*."

COULOMMIERS (C-18)

SECTION 2 – DESCRIPTION

Government comments:

France: In the French version, at the end of the first paragraph, indicate that « la croûte est souple » instead of « la croûte est flexible » [the crust is flexible]. As indicated above, the last sentence of the second paragraph (« Coulommiers intended for …ripening ») should be deleted. The compulsory cylindrical form in the English version of the draft standard should be added in the French version.

Discussion:

Ripening:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Recommendation no. 40:

Correct the French version with respect to rind and format.

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

Germany: Safe and suitable enzymes to enhance the ripening process should be deleted (see above).

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 3.3 – COMPOSITION

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 40% has been inserted.

Recommendation no. 41:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	40%	Not restricted	40-50%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 40% but less than 50%		42%
	Equal to or above 50% but less than 55%		46%
	Equal to or above 55% but less than 60%		49%
	Equal to or above 60%		52%

SECTION 4 – ADDITIVES

Government comments:

France: The addition of colorants and bleaching substances is not justified in this cheese

Discussion:

See discussion leading to Rec. no. 7. As decolouring agents as not used in practice, it seems appropriate to follow the suggestion.

Recommendation no. 42:

Delete decolouring agents.

APPENDIX

Government comments:

France: Point 1. « Usual sizes » should be introduced to specify the size of the cylinder, which should be between 12.5 and 15 cm in diameter.

Germany stated that the specifications in the appendix are too detailed and should be deleted

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

CREAM CHEESE (C-31)

DESCRIPTION

Whey protein

Comments submitted:

Cuba agreed that the definition of cheese should be retained and suggested the possibility for the legal recognition of the whey protein cheeses.

Discussion:

Whey protein cheeses were defined by the 1st session of CCMMP, and it was agreed that the definition should be included in an Annex to the Code of Principles Concerning Milk and Milk Products (ALINORM 95/11, para. 23). The definition has not been included in the GSUDT, which replaces the Code of Principles. Instead IDF has developing a proposal for an amendment to the Standard for Whey Cheese, A-7, to cover whey protein cheeses.

The proposed draft standard defines cream cheese as conforming to the General Standard for Unripened Cheeses, which in turn requires conformity with the standard for cheese (A-6). This imposes a limitation on the whey protein to casein ratio, which must not exceed that of milk. Some processes such as microfiltration and recombination may affect this ratio, and this may need to be considered at some time in the future.

Recommendation no. 43:

Cream cheese should comply with both the General Standard for Unripened Cheese Including Fresh Cheese and the General Standard for Cheese (A-6).

Ripening

Comments submitted:

Sweden has a ripened cheese traditionally sold under the name "gräddost" which is the same as "Cream Cheese" in English.

Switzerland believes that cream cheese can also be ripened cheese because the term “cream” refers to the fat content in the product.

Discussion:

At the 4th session of CCMMP, several delegations stated that the words in their languages that translate to “cream cheese” in English referred to a type of ripened cheese (ALINORM 01/11, para. 32). These delegations, and the comments of Sweden and Switzerland above, refer to the practice in some countries of using the term "cream cheese" to designate cheeses with a high milkfat content, such as high fat ripened hard cheese, that do not conform to the description. This standard is not intended to cover such cheeses, but describes a particular cheese variety. The scope of the standard should explain this to avoid confusion.

Recommendation no. 44:

The scope should include a text stating that in some countries, the term "cream cheese" is used to designate cheeses, such as high fat ripened hard cheese, that do not conform to the description, and that the standard does not apply to such cheeses.

3.1 RAW MATERIALS

Comments submitted:

Argentina said in that country cream, cheese is made exclusively with milk and cream.

Discussion:

Cream may be made directly from milk or by reconstitution from a variety of products obtained from milk. The General Standard for Unripened Cheeses, through its reference to Standard A-6, limits the ways in which raw materials may be used in the manufacture of cheese. It is therefore not necessary to restrict raw materials to milk and cream. See also separate report on “Review Details in Codex Standards for Individual Cheese Varieties”.

Recommendation no. 45:

Raw materials should be milk and/or products obtained from milk.

3.2 PERMITTED INGREDIENTS

Starter cultures

Comments submitted:

Argentina: In the Spanish version, it is suggested to replace the term "inofensivo" (inoffensive) by "inocuo" (innocuous).

Recommendation no. 46:

The Spanish text should be amended as suggested.

Gelatine and starch

Comments submitted:

Argentina considered there is technological justification for using gelatine and starch for cream cheese subjected to heat treatment, and suggested a maximum limit of 5 g/kg, to preserve the genuine nature of these cheeses.

France considered the use of gelatine, starches and other thickeners is not necessary and is not a widespread practice for these kinds of products, except for certain composite products, which are not included in the standard. If the substances are permitted in the standard, they should be limited to a maximum of 10g/kg, and their use should be authorized only for cheeses low in milk solids, that is, between 10% and 15% milk solids non-fat.

Spain noted that starches are not authorized in Standard C-31.

Switzerland suggested that the maximum limit for gelatine be set at 6 g/kg.

Discussion:

At the 4th session of CCMMP, the committee discussed the use of gelatine and starch in unripened cheese and fresh cheese, and agreed to retain the term "as governed by good manufacturing practice" in line with the maximum level of modified starches (ALINORM 01/11, para. 33). A full discussion is given in CX/MMP 00/5, section 3.2.3. The same arguments apply to cream cheese.

Recommendation no. 47:

Gelatine and starches should be permitted as ingredients in amounts that are functionally necessary, in accordance with Good Manufacturing Practice and taking account of stabilizers and thickeners used as additives.

Vinegar

Comments submitted:

Spain noted that vinegar is not authorized in Standard C-31.

Discussion:

The 4th session of CCMMP decided to retain vinegar as a permitted ingredient in unripened cheese and fresh cheese (ALINORM 01/11, Appendix II). A discussion is given in CX/MMP 00/5, section 3.2.4. The same arguments apply to cream cheese.

Recommendation no. 48:

Vinegar should be permitted as an ingredient in cream cheese.

Ingredients with anti-caking functions

Comments submitted:

Spain noted that rice, corn, wheat and potato starches and meals are not authorized in Standard C-31.

Sweden doubted the technological need for anti-caking agents in unripened cheese. Normally anti-caking agents are used to prevent caking in foods in powdered form.

Discussion:

Cream cheese is described as "a soft, spreadable … cheese, …the texture is smooth to slightly flaky". It is not sold as a cut, sliced, shredded or grated product. There is therefore no justification for including ingredients with anti-caking functions. Similarly there is no justification for including anticaking agents in the list of additives.

Recommendation no. 49:

Ingredients and additives with anti-caking functions should not be permitted in cream cheese.

Vitamins and minerals

Comments submitted:

Japan proposed that fortified ingredients (vitamins and minerals) should be included in Permitted Ingredients.

Discussion:

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 cream cheese.

Recommendation no. 50:

Vitamins and minerals should not be listed as permitted ingredients in cream cheese.

3.3 COMPOSITION

Comments submitted:

Argentina considered that cream cheese should have a minimum fat in dry matter of 60%.

Denmark considered the name "cream cheese" indicates that the fat content of the primary raw material is similar to cream. They proposed a minimum 60 % fat in dry matter for product designated "cream cheese", and an absolute minimum 40% fat in dry matter.

France considered any cheese using the reference "cream" in a name must contain a sufficiently high level of butterfat. They proposed the value of 40% fat in dry matter (which corresponds to the value of whole milk cheeses, i.e. non fat reduced) should therefore constitute a minimum number.

Germany proposed:

Milk fat	minimum: 50%
Moisture on fat free basis	above 73%
Dry matter	39%

Spain asked that the minimum fat in dry matter [40%] be revised.

Switzerland suggested the minimum fat content be changed to 55% fat in dry matter.

The **United Kingdom** proposed a minimum fat in dry matter of 25% and a minimum dry matter content of 20% so that "reduced fat cream cheeses" currently sold in the UK may continue to be marketed.

The **United States** recommended:

	Minimum:	**Reference level:**
Milk fat:	No minimum	70% m/m in dry matter

Discussion:

General: The separate report on "Establishment of absolute minimum contents of fat in dry matter for individual cheese varieties" makes use of a market approach to establish the absolute minimum fat content for cream cheese, resulting in an absolute minimum of 25% Fat in Dry Matter (the lowest level reported).

The following discussion intends to demonstrate the establishment of the absolute minimum fat content using a technologically based approach, resulting in an absolute minimum of 40% Fat in Dry Matter.

Technologically based approach for establishing min. fat content:

It should be noted that ingredients from which "cream cheese" can be manufactured, are not limited to "cream or a mixture of milk and cream". Final composition cannot, therefore be automatically limited by the

composition of input raw materials. This makes it necessary for a minimum "fat in dry matter" level to be included.

The cheese variety name "cream" should also be accepted as the chief descriptor of the characteristics of the cheese. Cream is elsewhere defined as containing a minimum of 10% fat on a mass/mass basis.

"Cream cheese", it follows, must also contain a minimum of 10% fat mass/mass, and maximum moisture of 85%, to account for retention of total milk solids. At these levels, fat in dry matter of the cheese would fall in to the range of 65-70%, without allowance for non-milk solids additives.

A minimum of 40% fat in the dry matter corresponds to the lower limit for cheese made from "products obtained from milk", one of which is cream, and allows for statistical error in calculating the ratio, accounts for the effects of allowable additions at their maximum rates, and facilitates the production of "modified" versions.

Other compositional criteria:

Reference milkfat content: The USA recommended a reference milkfat level of 70% FDM, and other governments remarked that cream cheese should have a composition that reflects manufacture from cream. IDF recommends a minimum reference milkfat content of 60% FDM, as this is the lower end of standard or unmodified cream cheeses.

Moisture on fat free basis: Germany proposed moisture on fat free basis (MFFB) above 73%. However, it is recommended that cream cheese should be permitted the full range of MFFB allowed under standard A-6 for a cheese described as "soft", that is, a minimum MFFB of 67%.

Dry matter content: Germany has proposed a dry matter content of 39%, and the UK has proposed a minimum of 20% for reduced fat cream cheese.

A minimum dry matter content of 25% is recommended. This figure is derived from the specified minimum milkfat content of cream cheese and a minimum milkfat content of cream of 10%.

Protein content: The 4th session of CCMMP considered an amendment to standard A-6, to introduce a minimum protein content for cheese (ALINORM 01/11, para. 19). The proposed minimum is intended mainly for the purpose of ensuring a minimum protein content in some types of cream cheese.

Recommendation no. 51:

The composition of cream cheese should be as follows:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	[25/40]%	Not restricted	Minimum 60%
Moisture on fat free basis	67%	-	Not specified
Dry matter	25%	Restricted by the MFFB	Not specified

The CCMMP is invited to consider whether the market approach or the technologically based approach should be used to establish the absolute min. fat content, that is min. 25% FDM or 40% FDM, respectively.

4. FOOD ADDITIVES

General

Comments submitted:

France commented that it would seem unnecessary to authorize the addition of many additives.

Spain commented on the number of additives listed additional to those in Standard C-31.

Discussion:

The recommendations below will reduce the number of additives listed. The remaining additives will be appropriately justified.

Acids

Discussion:

Acids permitted for unripened cheese in general, as listed in the GSUC, have been reviewed with regard to their technological justification in the manufacture of Cream Cheese.

Acids are primarily used for chemical acidification and pH-adjustment in the production of cream cheese to aid in coagulation, possibly in combination with microbial fermentation.

In addition to its acidifying properties lactic acid and other acids have an intensive effect as antioxidant due to binding of metal ions. Thus it can be used for restraining the rancidity of fat in fat rich products as cream cheese.

The ADI-value for the acids of interest for cream cheese production is not specified and therefore no maximum level should be set. Instead they should be permitted according to good manufacturing practice (GMP)

Recommendation no. 52:

Allow the use of INS 260, 270, 296, 330, and 507 at GMP level.

Acidity Regulators

Comments submitted:

Denmark did not support the permission of any additives that function as melting salts, including tartaric acid and tartrates.

Switzerland suggested that 575 glucono delta-lactone (GDL) should not be listed unless there is technological justification.

Discussion:

Acidity regulators permitted for unripened cheese in general, as listed in the GSUC, have been reviewed with regard to their technological justification in the manufacture of Cream Cheese.

Acidity regulators are used for acidity and pH-adjustment in the production of cream cheese and to aid in coagulation, possibly in combination with microbial fermentation.

The specific properties of the requested acidity regulators may vary. In addition to its pH regulating properties calcium carbonates increase the heat stability of milk proteins and thus the viscosity.

GDL is an ester of gluconic acid crystallized by dehydration. The advantage of GDL compared to other pH regulators is, that GDL slowly hydrolyses to gluconic acid when dissolved in water. Thus a uniform distribution in the cheese milk is obtained without flocculation of casein. Due to the slow development of gluconic acid the coagulation is delayed, which enables packaging in liquid form, followed by coagulation in the packing as the pH of the product decreases. The shelf life of the product is thus enhanced and at the same time a required texture is obtained.

The ADI-value for most of the acidity regulators of interest in cream cheese production is “not specified” or “ not limited” and therefore no maximum level should be set. Instead acidity regulators should be permitted according to good manufacturing practice (GMP).

Recommendation no. 53:

Allow the use of INS 170, 500, 501, and 575 at GMP level.

Stabilizers and Thickeners

Comments submitted:

Argentina considered that these types of additives should be limited to heat treated products and, if included in the standard, composite products.

France proposed that if these types of additives are included in the standard, the total amount must not exceed (individually or in combination) 10g/kg to prevent the replacement of dairy ingredients by non-dairy ingredients.

Spain recommended that the use of modified gums, alginates and starches should be limited in this type of cheese.

Discussion:

Stabilizers and thickeners permitted for unripened cheese in general, as listed in the GSUC, have been reviewed with regard to their technological justification in the manufacture of Cream Cheese.

Stabilizers and thickeners including modified starches 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

Citrates are used as sequestering agents. They also bind metal ions and to some extent restrict rancidity of fat.

Phosphates are used in cream cheese, primarily to sequester calcium and eliminate graininess defects on fat reduced cream cheeses.

- For "Light" products, those with reduced fat compared to the reference, phosphate salts can be used as a calcium-sequestering agent. This provides a smoother product, which is desirable for cream cheese consumers.
- For calcium enriched products, sequestering agents are necessary to protect against uncontrolled protein aggregation or graininess. This allows for a more nutritious product without an otherwise avoidable product defect.

Besides, phosphates can be used as anti-caking agents in salt that is a permitted ingredient in Cream cheese.

Other stabilizers are gums or polysaccharides. Their properties vary according to their polymeric structure. Due to their high water binding capacity, they affect the rheology of the aqueous system they inhabit and thus keep in suspension the various components.

With these additives the following three main objectives are achieved:

- modifying conventional formulae adapting them to industrial processes
- creating more attractive products with new textures
- maintaining a constant textural quality of the products during shelf life.

Stabilizers are required in Cream cheese in order to achieve and to control syneresis and to obtain a required texture and consistency.

For PGA, a maximum of 5 g/kg would be appropriate, while other stabilizers listed should be permitted according to good manufacturing practice (GMP).

Recommendation no. 54:

Allow the use of INS 331-333, 400-404, 406-407, 410, 412, 413, 415-417, 440, 460, 466, and 576 at GMP level.

Allow the use of modified starches with INS 1400-1405, 1410, 1412-1414, 1420-1422, 1440 and 1442 at GMP level.

Allow the use of INS 340, 341, and 450i (phosphates) at a maximum level of 3.5 g/kg singly or in combination (expressed as P_2O_5).

Allow the use of INS 405 (PGA) at a maximum level of 5 g/kg.

Colours

Comments submitted:

Germany proposed the deletion of INS 100 and 101, as they did not see a technological justification.

Spain commented that the list of colouring agents did not seem very extensive, as the dose of 160 b, annatto extracts, given the small ADI of this colouring agent.

Discussion:

Colours permitted for unripened cheese in general, as listed in the GSUC, have been reviewed with regard to their technological justification in the manufacture of Cream Cheese.

By definition Cream cheese has a white to light cream colour. Colours are required in order to ensure a uniform colour throughout the year disregarding seasonal variation. In addition the colour of milk changes in relation to region of production.

Colours possibly used in cream cheese production, are mainly yellow to orange as they standardize the naturally occurring colour in cow's milk (carotenes) which vary in relation to seasonal variation, feeding patterns and to region of production, or whiteners (Titanium dioxide) to reduce the extent of natural colour.

Annatto extracts are yellow to orange colouring agents and can be used, at certain times of the year and in certain regions, as a supplement to the naturally occurring carotenes in cow's milk. The maximum level of annatto extracts depends on the desired final colour. Should be restricted to 10 mg/kg of cheese on bixin/norbixin basis in cream cheese where only slight amount of colour may be needed.

ADI-values for the main part of colours of interest for cream cheese production are specified, and therefore maximum levels present in the cheese when ready for consumption are proposed.

Recommendation no. 55:

Allow the use of colours as follows:

- 160ai (synthetic): maximum 25 mg/kg
- 160aii (vegetable): maximum 600 mg/kg
- 160b: maximum 10 mg/kg (on bixin/norbixin basis)
- 160e: maximum 35 mg/kg
- 160f: maximum 35 mg/kg
- 171: GMP

Preservatives

Comments submitted:

Germany requested the deletion of propionates (INS 280 to 283), and nisin (INS 234). They noted the problem of antibiotic resistance in connection with the use of nisin and pimaricin. They saw no need for surface treatment with pimaricin.

Spain proposed that the dosage of pimaricin should be limited to 1 mg/dm^2.

Switzerland considered there is no technological justification for the use of pimaricin for surface treatment.

The **U.S.** recommended pimaricin is included as a preservative for cut, sliced or shredded product.

Discussion:

Preservatives permitted for unripened cheese in general, as listed in the GSUC, have been reviewed with regard to their technological justification in the manufacture of Cream Cheese.

Due to their composition and due to their low pH cream cheeses are readily exposed to yeasts and moulds (including those producing toxins) but also undesirable bacteria may be present. To combat precisely the action of such microbial agents, the following preservatives are required for cream cheese.

The ADI-value for most the preservatives of interest for cheese production is specified and therefore, except for propionates, a maximum level for the amount present in the cheese when ready for consumption should be set.

Sorbic acid and its calcium and potassium salts (see also discussion leading to Rec. no. 8):

An amount of 1 g/kg of cheese is required in order to achieve a proper preservative action of sorbic acid and of sorbates.

Nisin:

Nisin is produced by strains of *Streptococcus lactis* and consists of several closely related polypeptide bacteriocins. For this reason nisin functions as an antimicrobial preservative. The use of nisin extends the shelf life of cheese, especially for cheese stored at a relatively high temperature.

Its range of action is not very large; it acts solely against gram-positive bacteria, clostridium and other spore formers.

In this respect it could be stated that nisin is complementary to the range of action of sorbic acid, since the latter exhibits its lowest action against said microorganisms.

The required concentration is 12.5 mg/kg of cheese to obtain the necessary effect.

Propionic acid and its sodium calcium and potassium salts (see also discussion leading to Rec. no. 8):

Regarding their level of use, 3 g/kg (singly or in combination, expressed as propionic acid) should be adequate to achieve the proper effect. However, ADI is "not specified", use according to GMP is appropriate.

Pimaricin (Natamycin):

Pimaricin is an antimycotic produced by *Streptomyces natalensis*. It is used as an antifungical preservative for surface treatment of the cheese. Cream cheeses, especially those presentations that have rectangular or square shape, exhibit a big surface. Yeasts and moulds can easily attack this surface. Amounts of 2 mg/dm² surface are generally required. Pimaricin should not be present at a depth of 5 mm from the surface.

Recommendation no. 56:

Allow the use of preservatives as follows:

- 200, 202, 203 maximum 1 mg/kg singly or in combination (expressed as sorbic acid)
- 234: maximum 12.5 mg/kg
- 280-283: GMP
- 235 (for surface treatment, only): maximum 2 mg/dm^2 of surface. Not present in a depth of 5 mm

Anticaking Agents

Comments submitted:

Spain said the use of aluminium salts should be restricted, given the ISTP that this element contains (7mg/kg weight).

Discussion:

There is no need for anticaking agents in Cream Cheese. See Rec. no.49

Foaming agents

Discussion:

Foaming agents permitted for unripened cheese in general, as listed in the GSUC, have been reviewed with regard to their technological justification in the manufacture of Cream Cheese.

Nitrogen is used as a foaming agent in aerated products. Moreover, oxygen is then replaced and thereby the oxidation of fat and the growth of certain bacteria are restrained.

Recommendation no. 57:

Allow the use of INS 290 and 941 at GMP level.

Name of the Food

Comments submitted:

Sweden had a problem with the name cream cheese. The problem is described under point 7.1 in document CX/MMP 00/5 (on page 13 in English version) as the Dutch problem.

Switzerland considered that cream cheese could also be ripened cheese because the term "cream" refers to the fat content in the product.

The Netherlands asked whether it would be allowed to continue the use of the Dutch translation of the word cream cheese ("roomkaas") for a ripened cheese not regulated by this standard.

Discussion:

Rec. no. 44 above

Declaration of Milkfat Content

Comments submitted:

Canada observed that Section 3.3 – Composition and Section 7.2 – Milkfat content declaration, seem to be contradictory to each other, specifically in the use of the terms high fat … skim.

Switzerland suggested that spreadable unripened cheese products (cream cheese type) with a lower fat content [than 55% fat in dry matter] should be labelled differently (e.g. dairy spread).

Discussion:

Canada's comment refers to the range of terms (high fat … skim) that appear in the Standard for Unripened Cheese. These terms are not appropriate for cream cheese, and should not be included. This then leaves a single paragraph that is consistent with the other C standards.

Switzerland suggests products below the minimum fat content (which they propose should be 55% fat in dry matter) should be labelled differently. Recommendation no. 51 proposes a minimum fat in dry matter of 40%. Products below this fat content may not use the name cream cheese.

Recommendation no. 58:

Section 7.3 should be worded the same as other C standards.

Taking into account that scenario (b) of Rec. no. 11 applies, insert the following paragraph in Section 7.1:

"The designation of products in which the fat content is below or above the reference range but above the absolute minimum specified in section 3.3 of this Standard shall be accompanied by an appropriate qualification describing the modification made or the fat content (expressed as fat in dry matter or as percentage by mass), either as part of the name or in a prominent position in the same field of vision. Suitable qualifiers are nutritional claims in accordance with the Guidelines for the Use of Nutritional Claims."

CAMEMBERT (C-33)

SECTION 2 – DESCRIPTION

Government comments:

France: The French authorities consider that the shape is an essential criterion for characterizing the identity of some cheeses. For the Camembert standard, the flat cylindrical shape, which corresponds to the traditional shape, must be mentioned clearly in the body of the standard. To this end, the French version of the standard must be changed to correspond to the English version. Nevertheless, square-shaped products have recently appeared in certain countries and presented as « Camembert » on the market of these countries.

To take account of this situation and to avoid risks of confusion, such a product should bear the specific name «Carré de Camembert » (and not « Camembert ») provided it meets all the other criteria of the standard.

As for other individual standard cheeses (cf. Emmental…), la last sentence of the second paragraph (« Camembert intended for …. degree of ripening should be deleted.

The ripening procedure is usually carried out at a temperature of 10°C to 14°C (and not 24°C).

Germany: A minimum ripening time is not justified and should therefore be deleted.

Discussion:

Shape:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Carré de Camembert:

See Rec. no. 62.

Ripening provisions:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Recommendation no. 59:

Correct the temperature range into 10-14 ºC..

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

Germany: As for the other varieties, in this case, too, safe and suitable enzymes to enhance the ripening process should not be permitted (see above).

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 3.3 – COMPOSITION

Government comments:

Germany suggested the following values:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 30% and less than 40%		minimum 38%
	min. 40% and less than 45%		minimum 42%
	min. 45% and less than 50%		minimum 44%
	min. 50% and less than 60%		minimum 46%
	Min.60%		minimum 52%

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 30% has been inserted.

The additional FDM categories suggested by Germany have been included as well with corresponding dry matter contents that are consistent with the dry matter content specified other FDM categories.

In addition, Germany suggested a dry matter content that at all FDM levels is generally 1% above the current figures. However, it is recommended to retain the current figures, which also cover the German products.

Recommendation no. 60:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 30% but less than 35%		38%
	Equal to or above 35% but less than 40%		39%
	Equal to or above 40% but less than 45%		41%
	Equal to or above 45% but less than 50%		43%
	Equal to or above 50% but less than 55%		45%
	Equal to or above 55% but less than 60%		48%

SECTION 4 – ADDITIVES

Government comments:

France: The addition of bleaching substances is not justified in this cheese

Discussion:

See discussion leading to Rec. no. 7. However, as de-colourants are not used in practice, it seems appropriate to follow the suggestion.

Recommendation no. 61:

Delete decolouring agents.

SECTION 7.1 – NAME OF THE FOOD

Government comments:

France: As the square shape is not in current use, the name « Carré de Camembert » should be authorized only for sale in countries where national regulations have authorized this shape. The second sentence of this paragraph should be drawn up as follows: if the square shape is provided by the national legislation, the cheese can be referred to as « Carré de Camembert ».

Germany: Camembert in square shape should be regulated generally and without limitation: "A Square Camembert shall be designated "Carre de Camembert".

Discussion:

The existing wording was recommended in CX/MMP 00/12 (see recommendation no. 65 of that document and the discussion leading to it) and makes it mandatory to use the name, when square shapes are allowed. Where they are not allowed, the provision has no impact.

In order to follow the comments made, it would be more appropriate to address the designation "Carré de Camembert" in Section 2 of the Standard (description).

However, assuming that the French terminology may not be suitable worldwide, the labelling section should provide for an option to use a similar qualifier in local language.

Recommendation no. 62:

Relocate the concept of the Carré de Camembert in section 2 through:

a) Removing the reference to the square shape in the first sentence of Section 2, and

b) Adding the following as a new paragraph at the end of Section 2: *"Carré de Camembert is a soft surface ripened cheese with a square shape and which comply with all other criteria and requirements specified for Camembert."*

In Section 7.1, replace the text relating to this issue with the following:

"The term "Carré de" may be replaced by other appropriate term(s) suitable in the country of retail sale."

APPENDIX

Government comments:

France: A paragraph on "usual sizes" should be added. These are:

- Camembert: flat cylinder 10.5 to 11 cm in diameter
  weight: 250 g

Germany stated that the specifications in the appendix are too detailed and should be deleted

Discussion:

Minimum and maximum criteria relating to dimensions and weight are already specified in the main body of the standard (see separate report on "Review of details in Standards for Individual Cheese Varieties").

Further specifications of dimensions and weight would not be necessary. Further, the dimensions and weight suggested by France are not the usual sizes in all countries.

Recommendation no. 63:

No change.

BRIE (C-34)

SECTION 2 – DESCRIPTION

Government comments:

France: In the French version, it is necessary to add "that is shaped as a flat cylinder" to bring it in line with the English version. The last sentence of the second paragraph (« Brie intended… degree of ripening ») should be deleted.

Germany: A minimum ripening time is not justified and should therefore be deleted.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

Recommendation no. 64:

Correct the French version.

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

Germany: As for the other varieties, in this case, too, safe and suitable enzymes to enhance the ripening process should not be permitted (see above).

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 3.3 – COMPOSITION

Government comments:

France: It should be specified that the minimum fat/dry matter content is 40%.

Germany suggested the following values:

Milk constituent:	**Minimum Content (m/m)**	**Max. Content (m/m)**	**Reference level (m/m)**
Milkfat in dry matter	30%	Not restricted	45%
Dry matter	**Contents of fat in dry matter (w/w)**		**Corresponding dry matter content (w/w)**
	min. 40% and less than 45%		minimum 42%
	min. 45% and less than 50%		minimum 44%
	min. 50% and less than 60%		minimum 46%
	Min.60%		minimum 52%

Discussion:

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 40% has been inserted. This would also meet the French request.

The additional FDM categories suggested by Germany have been included as well with corresponding dry matter contents that are consistent with the dry matter content specified other FDM categories.

In addition, Germany suggested a dry matter content that at all FDM levels is generally 1% above the current figures. However, it is recommended to retain the current figures, which also cover the German products.

Recommendation no. 65:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	Minimum Content (m/m)	Max. Content (m/m)	Reference level (m/m)
Milkfat in dry matter	40%	Not restricted	45-55%
Dry matter	Depending on the fat in dry matter content, according to the table below		
	Fat in dry matter content (w/w)		Corresponding min. dry matter content (w/w)
	Equal to or above 40% but less than 45%		42%
	Equal to or above 45% but less than 50%		43%
	Equal to or above 50% but less than 55%		45%
	Equal to or above 55% but less than 60%		48%
	Equal to or above 60%		51%

SECTION 3.4 – ESSENTIAL MANUFACTURING CHARACTERISTICS

Government comments:

France: The weight of the cheese should be raised to 4000 g instead of 3500 g to cover all the products currently on the market, in particular those sold directly to the consumer after cutting.

Discussion:

See separate report on "Review of details in Standards for Individual Cheese Varieties".

SECTION 4 – ADDITIVES

Government comments:

France: The addition of bleaching substances is not justified in this cheese.

Discussion:

See discussion leading to Rec. no. 7. However, as the use of decouloring agents are not practiced, it seems appropriate to follow the request.

Recommendation no. 66:

Delete decolouring agents.

APPENDIX

Government comments:

France: The following point concerning the "usual sizes" should be added:

Brie: flat cylinder, 22 to 36 cm in diameter.

Petit Brie: flat cylinder 14 to 22 cm in diameter.

The designation « Petit Brie » [Small Brie] can be used only if the cheese complies with the size requirements stipulated above.

Germany stated that the appendix is not necessary

Discussion:

Earlier, it has been recommended to leave out reference to "petit Brie". This recommendation is still valid.

With regard to diameter of (normal) Brie - See separate report on "Review of details in Standards for Individual Cheese Varieties".

MOZZARELLA

SECTION 2 – DESCRIPTION

Government comments:

Spain pointed out a translation error as follows: The fourth paragraph of Section 2. Description, has been translated incorrectly in Spanish and should be replaced by the following:

"Mozzarella using the "pasta filata" process, which consists of heating the curd with an adequate pH value before submitting it to a subsequent mixing and drawing treatment until the curd is smooth and without clots. The curd, while hot, should be cut and packaged, and cooled to harden it. Other production techniques that guarantee a final product with the same physical, chemical and organoleptic characteristics are also authorized"

Recommendation no. 67:

Correct the Spanish version

SECTION 3.2 – PERMITTED INGREDIENTS

Government comments:

Thailand requested clarification why calcium chloride is not included in the list of permitted ingredients.

Discussion:

The reason is that calcium chloride is used as a processing aid. The 3rd CCMMP decided not to regulate processing aids in the milk product standards (see ALINORM 99/11, par. 27, 4th indent, par. 31, and par. 46)

SECTION 3.3 – COMPOSITION

Government comments:

Germany: The Federal Government would like to remind of the German proposal mentioned in recommendation 83 and based on market situation. The minimum dry matter contents proposed for low moisture mozzarella are considered to be too high.

Uruguay suggested that the absolute minimum FDM be specified as 25% (Mercusor).

Discussion:

In response to Germany, it should be noted that the figures for low moisture mozzarella is the lowest figures possible if the product is to be a firm/semi-hard cheese as specified in section 2. The figures correspond to moisture on fat free basis of max. 69%. The German proposal would change the product into a soft cheese.

According to the results of the separate report on the Establishment of Absolute Minimum Contents of Fat in Dry Matter for Individual Cheese Varieties, an absolute minimum FDM of 20% has been inserted for the high moisture type and an absolute minimum of 2% has been inserted for the low moisture type. This would also meet the request of Uruguay.

Recommendation no. 68:

Taking into account the above report and Rec. no. 4, insert the following table:

Milk constituent:	Minimum Content	Max. Content	Reference level
	(m/m)	(m/m)	(m/m)
Milkfat in dry matter			
- with high moisture	20%	Not restricted	40-50%
- with low moisture	2%	Not restricted	40-50%
Dry matter	Depending on the fat in dry matter content, according to the table below		

	Fat in dry matter content (w/w)	Corresponding min. dry matter content (w/w)	
		With low moisture	***With high moisture***
	Equal to or above 2% but less than 10%	31%	-
	Equal to or above 10% but less than 20%	34%	-
	Equal to or above 20% but less than 30%	36%	24%
	Equal to or above 30% but less than 40%	39%	26%
	Equal to or above 40% but less than 45%	42%	29%
	Equal to or above 45% but less than 50%	45%	31%
	Equal to or above 50% but less than 60%	47%	34%
	Equal to or above 60%	53%	38%

SECTION 7.1 – NAME OF THE FOOD

Government comments:

Germany: Mozzarella with a high moisture content corresponds to the original type of Mozzarella that is predominantly known to the final consumer. Mozzarella with low moisture content has developed as a product intended for further processing. Since predominantly Mozzarella with high moisture content is available in retail sale and since this has been the basis for further development we suggest to designate Mozzarella with high moisture content as "Mozzarella" and to request a qualifier for Mozzarella with low moisture content.

Discussion:

In the world-wide perspective, the low moisture Mozzarella is the version that in terms of trade volume and consumption dominates the market and is consequently the version that by consumers are perceived as the usual one, while the high moisture version, although historically the original one, is perceived as the deviating one. Further, many adequate descriptors already exist for the high moisture version, while this is not the case for the low moisture version.

Recommendation no. 69:

No action required.