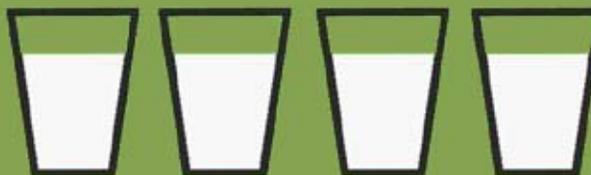
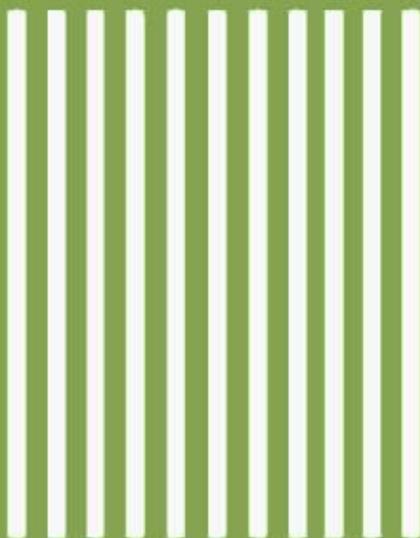


Joint FAO/WHO Food Standards Programme

**JOINT FAO/WHO COMMITTEE  
OF GOVERNMENT EXPERTS  
ON THE CODE OF PRINCIPLES  
CONCERNING MILK AND MILK  
PRODUCTS**

Report of the Twenty-first Session

Held in Rome, Italy, 2-6 June 1986



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
WORLD HEALTH ORGANIZATION  
Rome



CX 5/70 - 21st Session

REPORT  
of the  
TWENTY-FIRST SESSION  
of the  
JOINT FAO/WHO COMMITTEE OF GOVERNMENT  
EXPERTS ON THE CODE OF PRINCIPLES CONCERNING  
MILK AND MILK PRODUCTS

Held at FAO Headquarters  
Rome, Italy  
2-6 June 1986

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS**

Reprinted 1988

The designations employed and the presentation of material in this publication do not imply the expression of any Opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

M-83

ISBN 92-5-102476-6

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of The copyright owner. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Publications Division, Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy.

© **FAO 1986**

## TABLE OF CONTENTS

|   | Page |
|---|------|
| Summary of Points for Action by Governments   | V    |
| Introduction  | 1    |
| Election of Chairman and Vice-Chairmen for the 22nd Session                                 | 1    |
| Adoption of Agenda  | 2    |
| Acceptance of the Code of Principles and Associated Standards                               | 2    |
| Acceptance of Standard Methods of Sampling and Analysis                                     | 3    |
| Details of Acceptance of International Individual Cheese Standards                          | 7    |
| Matters of Interest to the Committee  | 8    |
| Food Additive Provisions in Cheese Standards  | 9    |
| Revision of Standard № A-2 - Milk Fat Products Including Ghee                               | 11   |
| Draft Standard for Low Fat Dairy Spreads  | 13   |
| Preservation of Raw Milk Quality by Utilization of Natural Antibacterial Systems in Milk    | 13   |
| Definition of Heat Treatments of Milk   | 14   |
| Amendments of Standards   | 15   |
| i) Amendment of International Individual Cheese Standards                                   | 15   |
| ii) Amendment of Standard A-I for Butter and Whey Butter                                    | 15   |
| iii) Amendment of Standards N2 A-3 for Evaporated Milk and A-4 for Sweetened Condensed Milk | 16   |
| Standard Methods of Analysis  | 17   |
| Labelling Section in Milk Product Standards   | 17   |
| Use of Names in Codex Standards as Part of the Names of Other Similar Products              | 21   |
| Name of Vegetable Fat Mixtures  | 22   |
| Guidelines for the Use of Milk Proteins in Non-Milk Products                                | 23   |
| Other Business  | 24   |
| i) Redraft of the Recommended General Standard A-8(a)                                       | 24   |
| ii) Revision of Article 4 of the Code of Principles   | 24   |
| iii) Edible Rennet Casein   | 24   |
| iv) Sweet Whey and Acid Whey Powders  | 24   |
| v) Cheese in Brine and Fresh Cheeses  | 25   |
| vi) Organohalogen Compounds in Human Milk   | 25   |
| vii) Health Considerations relating to Milk and Milk Products                               | 25   |
| viii) Monitoring for Radio-Activity   | 26   |
| ix) Codex Standard for Minarine   | 26   |
| Future Work   | 26   |
| Statement by the IDF  | 27   |
| Ad Hoc Steering Group   | 27   |
| Date of Next Session  | 27   |

|  |      |
|--|------|
| APPENDIX I   | Page |
| List of Participants   | 28   |
| APPENDIX II  |      |
| Methods of Sampling and Analysis adopted by the Committee  | 37   |
| APPENDIX III   |      |
| Annatto levels expressed as mg of norbixin/kg cheese in the U.S.A.   | 39   |
| APPENDIX IV  |      |
| Considerations relative to the use of Karaya and Xanthan Gum in certain cheeses and cheese products  | 40   |
| APPENDIX V   |      |
| Definition of Heat Treatment of Milk and Milk Products   | 42   |
| APPENDIX VI  |      |
| IDF/ISO/AOAC Cooperation in the field of analysis and sampling   | 44   |
| APPENDIX VII   |      |
| Report of Ad Hoc Working Group on Revision of Labelling Provisions in Code of Principles Standards   | 49   |
| APPENDIX VIII  |      |
| Definition of "Processing Aid"   | 59   |
| APPENDIX IX  |      |
| Statement by the Delegation of Belgium   | 59   |
| APPENDIX X   |      |
| Revised Standard A-3 for Evaporated Milk, Evaporated Skimmed Milk, Evaporated Partly Skimmed Milk and Evaporated High-Fat Milk                                     | 63   |
| APPENDIX XI  |      |
| Revised Standard A-4 for Sweetened Condensed Milk, Sweetened Condensed Skimmed Milk, Sweetened Condensed Partly Skimmed Milk and Sweetened Condensed High-Fat Milk | 65   |
| APPENDIX XII   |      |
| Draft A-14 Standard for Edible Rennet Casein   | 67   |
| APPENDIX XIII  |      |
| Draft A-15 Standard for Food Grade Sweet Whey and Acid Powder  | 68   |
| APPENDIX XIV   |      |
| Draft A-16 Standard for Low Fat Dairy Spreads  | 70   |
| APPENDIX XV  |      |
| Revised Standard A-2 for Milkfat Products  | 74   |

## SUMMARY OF POINTS FOR ACTION BY GOVERNMENTS

1. Governments are requested to make their comments available by 31 May 1987 Latest- All Communications should be sent, if possible, in duplicate and addressed to the Technical Secretary, Committee on the Code of Principles concerning Milk and Milk Products, Animal Production and Health Division, FAO, Rome
2. Governments may send observations regarding any matter they would wish to raise. Those specific points on which the Committee agreed that comments should be sought are the following:

### Acceptance of the Code of Principles

- Governments to continue to submit their acceptances. In view of the fundamental importance of the Code, the Committee recommends the governments to give acceptances without deviations or reservations. (See 8th Edition of the Code of Principles CAC/Vol. XVI Ed. 1, 1984).

### International Individual Cheese Standards

- C-1 to C-35 at Step 7 of the Procedure for the Elaboration of International Individual Cheese Standards
- Governments to continue to submit their acceptances and to confirm acceptances of revised standards respectively (see paras. 59 to 62 of this Report and the 8th Edition of the Code of Principles and International Cheese Standards -CAC/Vol. XVI - Ed. 1, 1984).
- Inclusion of provision for use of natamycin in international individual cheese standards
- Depositing countries of such standards to indicate whether they want such a provision in the standards concerned. (see paras- 18 to 20 of this Report).

### Standards A-3, A-4, A-5, A-9, A-10

#### Use of calcium hydrogen carbonate

- Governments to indicate the individual calcium salts actually used in the preparation of the products covered by these standards (see paras. 28 to 30 of this Report).

### Draft Standard for Low-Fat Dairy Spreads

- Names to designate "low fat dairy spreads"
- Submitted to Governments for comments (see para. A7 of this Report and Appendix XIV).

Amended Standards A-3 for Evaporated Milks and A-4 for Sweetened Condensed Milks

Amended Labelling Provisions in Milk Product Standards

Proposed Amendments of General Standard A-8(a) for Named Variety Process(ed) Cheese and Spreadable Process(ed) Cheese

Draft Standards for

- Edible Rennet Casein and
- Food Grade Sweet Whey and Acid Whey Powders

Revised Standard A-2 for Milkfat Products

Standard Methods of Analysis

- Governments to indicate the various names used to designate low fat dairy spreads (see para. A5 of this Report).
- Submitted to governments for comments (see paras. 68 to 7A of this Report and Appendices X and XI).
- Labelling provisions amended in accordance with the report of the working group, established for that purpose at the 21st Session of the Milk Committee, will be submitted to Governments for comments (see paras. 80 to 9A of this Report and Appendix VII).
- Governments to comment on the proposed addition in Section 2 of the Standard to permit the use of other milk products to a maximum of 5% lactose in the final product (see paras. 123 and 124 of this Report).
- Submitted to Governments for comments (see paras. 129, 130 and 1A3 of this Report and Appendices XII and XIII).
- Submitted to governments for acceptance (see paras. 31 to 40 of this Report and Appendix XV).
- Governments to continue to submit their acceptances or to comment as appropriate (see paras. 75 to 79 of this Report and Appendices II and VI). The texts of the standard methods will be circulated in due course.

REPORT OF THE  
TWENTY FIRST SESSION OF THE JOINT FAO/WHO COMMITTEE OF  
GOVERNMENT  
EXPERTS ON THE CODE OF PRINCIPLES CONCERNING MILK AND MILK  
PRODUCTS  
Rome, 2-6 June 1986

INTRODUCTION

1. The Twenty First Session of the Joint FAO/WHO Committee of Government Experts on the Code of Principles concerning Milk and Milk products was held at FAO Headquarters in Rome, from 2 to 6 June 1986. The Session was attended by 103 participants including representatives and observers from 25 countries, and observers from 7 organizations (see Appendix I for the List of Participants).
2. The Committee was presided over by its Chairman, Dr R. Weik (USA), and its Vice-Chairmen Mr G.A. Bastin (Federal Republic of Germany) and Mr A. Oterholm (Norway). The Joint Secretaries were Dr F. Winkelmann (FAO) and Dr L.G. Ladomery (Joint FAO/WHO Food Standards Programme).
3. The Twenty First Session of the Committee was convened by the Directors-General of FAO and WHO. The meeting was opened by Dr R.K. Malik, Chief, Joint FAO/WHO Food Standards Programme, who reviewed the programme of work of the Committee, the progress being made by the Codex Alimentarius Commission on standards and their acceptance by governments, the International Scheme for the Coordination of Dairy Development (ISCDD) and the activities of the FAO dairy training programme. Dr Malik mentioned in particular that the Commission at its 16th Session had revoked its earlier decision that the Committee adjourn sine die after this Session. Further, Dr Malik referred to issues of special interest which the Commission had discussed at its 16th Session- These included the work of the Codex Committee on Food Hygiene and its agreement that a Code of Hygienic Practice for Soft Cheese be elaborated, the agreement of the Codex Committee on Processed Meat and Poultry Products to make provisions for the use of milk protein in the proposed guidelines for the use of vegetable protein products in processed meat and poultry and the Codex Committee on Fats and Oils as regards the use of the name substitute ghee. Dr Malik also stressed that the Codex Alimentarius Commission attached particular importance to the needs of developing countries as evidenced by the emphasis being laid on standards and codes of practice of interest to these countries. Dr Malik further referred to the adoption at Step 8 of the Revised General Standard for the Labelling of Pre-packaged Foods and of the adoption of Guidelines for Labelling Provisions in Codex Standards which were used by the Secretariat in redrafting the labelling provisions of the milk product standards. Dr Malik then referred to the impressive list of standards which were published in the 8th edition of the Code of Principles concerning Milk and Milk Products and asked the government experts to bring to the attention of their governments the desirability of accepting these standards.

Election of Chairman and Vice-Chairmen for the 22nd Session

4. The Committee unanimously elected Mr G.A. Bastin (Federal Republic of Germany) Chairman of the Committee, to serve from the end of the 21st. Session until

the end of the 22nd Session. The Committee also unanimously elected Mr A. Oterholm (Norway) and Mr J.M. van der Bas (Netherlands) to be the first and second Vice-Chairmen, respectively, both to serve from the end of the 21st Session until the end of the 22nd Session. The Committee expressed its appreciation of the outgoing Chairman of the Committee and the Vice-Chairmen.

#### Adoption of Agenda

5. Following a suggestion by the Chairman the provisional agenda was adopted with some rearrangement in the order of items to be discussed.

#### Acceptance of the Code of Principles and Associated Standards

6. The Committee was informed of the latest position regarding government acceptances of the Code of Principles, the Associated Standards and Methods of Analysis and Sampling. This was as follows:

| <u>Code of Principles</u>        | <u>Number of Acceptances</u>   |
|----------------------------------|--|
| Group I                          | 33   |
| Group II                         | 4  |
| Group III                        | 35   |
| <u>Redraft of Standard</u>       | <u>Accepted by*</u>  |
| A-1 for Butter                   | 16 countries: Belgium*, Brazil*, Bulgaria*, Canada*, Denmark*, Egypt*, Finland, France*, F.R. of Germany*, Iran, Kenya, Netherlands*, New Zealand*, Norway*, Poland*, Philippines.             |
| A-2 for Butteroil                | 12 countries: Brazil*, Bulgaria*, Canada Denmark*, Egypt*, France, Finland, Hungary, Netherlands*, New Zealand, Norway*, Philippines.  |
| A3 for Evaporated Milk           | 16 countries: Belgium*, Brazil*, Canada* Denmark*, Egypt*, Finland, F.R. of Germany*, Hungary, Iran, Kenya, Netherlands*, New Zealand*, Poland*, Philippines, Switzerland*, USA*,              |
| A-4 for Sweetened Condensed Milk | 17 countries: Belgium*, Brazil*, Bulgaria*, Canada*, Denmark*, Egypt*, Finland*, F.R. of Germany*, Hungary, Iran* Kenya, Netherlands*, New Zealand*, Poland*, Philippines, Switzerland*, USA*. |
| A-5 for Milk Powder              | 14 countries: Belgium*, Brazil*, Bulgaria*, Denmark*, Egypt*, F.R. of Germany*, Iran, Kenya, Netherlands, New Zealand*, Poland*, Philippines, Switzerland*, USA*.                              |
| A-6 for Cheese                   | 4 countries: Brazil*, Hungary, Philippines, Poland.  |

|   |  |
|---|--|
| A-7 for Whey Cheese   | 12 countries: Brazil*, Bulgaria*, Canada*, Denmark, Finland, F.R. of Germany*, Hungary, Iran, Netherlands*, New Zealand, Norway, Poland*, Philippines. |
| A-8(a) for Named Variety Process(ed) Cheese and spreadable Process(ed) Cheese                     | 5 countries: Brazil*, Canada, New Zealand*, Poland*, Philippines.  |
| A-8(b) for Process(ed) Cheese and Spreadable Process(ed) Cheese                                   | 5 countries: Brazil*, Canada, New Zealand*, Poland*, Philippines.  |
| A-8(c) for Processed Cheese Preparations, (Process(ed) Cheese Food and Process(ed) Cheese Spread) | 5 countries: Brazil*, Canada, New Zealand*, Poland*, Philippines.  |

#### New Standards

|   |   |
|---|---|
| A-9 for Cream                             | 4 countries: Brazil*, Egypt*, Hungary, Philippines.                           |
| A-10 for Cream Powder                     | 7 countries: Bulgaria*, Denmark*, France*, Hungary, Iran, New Zealand*, USA*. |
| A-11(a) for Yoghurt and Sweetened Yoghurt | 4 countries: Brazil*, France*, Iran, New Zealand*.                            |
| A-11(b) for Flavoured Yoghurt             | 3 countries: F.R. of Germany*, New Zealand*, Philippines.                     |
| A-12 for Edible Acid Casein               | 3 countries: Brazil, Hungary, New Zealand.                                    |
| A-13 for Edible Caseinate                 | 3 countries: Brazil, Hungary, New Zealand.                                    |

\* "country" means acceptance with reservations of various kinds.

### Acceptance of Standard Methods of Sampling and Analysis <sup>1</sup>

<sup>1</sup> A complete list of the standards adopted or under consideration by the Joint FAO/WHO Committee on the Code of Principles and of the corresponding IDF Standards, ISO Standards and ADAC methods is given in Appendix II to this document.

#### B-1 (1966) Milk & Milk Products - Sampling Methods

Australia, Austria, Belgium, Burma, Canada, Democratic Kampuchea, Denmark, Ecuador, Egypt, Ethiopia, Fiji, Finland, France, Guatemala, Guyana, Hong Kong, Hungary, India, Iran, Ireland, Jamaica, Jordan, Kenya, Korea Rep. of, Kuwait, Luxembourg, Madagascar, Malaysia, Malta, Netherlands, New Zealand, Nigeria, Norway, Portugal, Saudi Arabia, Spain, Sri Lanka, Sweden, Switzerland, Syria, Tanzania, Thailand, Trinidad and Tobago, Tunisia, United Kingdom, United States of America, Vietnam, Zaire.

Total number of acceptances: 48

B-1 revised (at Step (h) see Report of the Committee's 20th Session, Appendix III and Paras 68 to 74)

Total number of acceptances: 1 - Brazil

#### B-2 (1967) Dried Milk - Fat Content

Australia, Austria, Belgium, Brazil, Burma, Canada, Democratic Kampuchea, Denmark, Ecuador, Ethiopia, Fiji, Finland, France, Guatemala, Guyana, Hong Kong, Hungary, India, Iran, Ireland, Italy, Jordan, Kenya, Korea Rep. of, Kuwait, Luxembourg, Madagascar, Malaysia, Malta, Netherlands, New Zealand, Nigeria, Norway, Portugal, Saudi Arabia, Spain, Sweden, Switzerland, Syria, Tanzania, Thailand, Trinidad and Tobago, Tunisia, United Kingdom, United States of America, Vietnam, Zaire.

Total number of acceptances: 47

#### B-3 (1967) Cheese & Processed Cheese Products - Fat Content

Australia, Austria, Belgium, Brazil, Burma, Canada, Democratic Kampuchea, Denmark, Ecuador, Ethiopia, Fiji, Finland, France, Guatemala, Guyana, Hong Kong, Hungary, India, Iran, Ireland, Italy, Jordan, Kenya, Korea Rep. of, Kuwait, Luxembourg, Madagascar, Malaysia, Malta, Netherlands, New Zealand, Nigeria, Norway, Portugal, Saudi Arabia, Spain, Sri Lanka, Sweden, Switzerland, Syria, Tanzania, Thailand, Trinidad and Tobago, United Kingdom, United States of America, Vietnam, Zaire.

Total number of acceptances: 47

#### B-4 (1967) Fat from Butter - Acid Value

Australia, Austria, Belgium, Brazil, Burma, Canada, Democratic Kampuchea, Denmark, Ecuador, Ethiopia, Fiji, Finland, France, Guatemala, Guyana, Hong Kong, Hungary, India, Iran, Ireland, Italy, Jordan, Kenya, Korea Rep. of, Kuwait, Luxembourg, Madagascar, Malaysia, Malta, Netherlands, New Zealand, Nigeria, Norway, Portugal, Saudi Arabia, Spain, Sri Lanka, Sweden, Switzerland, Syria, Tanzania, Thailand, Trinidad and Tobago, United Kingdom, Vietnam, Zaire.

Total number of acceptances: 46

#### B-5 (1967) Fat from Butter - Refractive Index

Australia, Austria, Belgium, Brazil, Burma, Canada, Democratic Kampuchea, Denmark, Ecuador, Ethiopia, Fiji, Finland, France, Guatemala, Guyana, Hong Kong, Hungary, India, Iran, Ireland, Italy, Jordan, Kenya, Korea Rep. of, Kuwait, Luxembourg, Madagascar, Malaysia, Malta, Netherlands, New Zealand, Nigeria, Norway, Portugal, Saudi Arabia, Spain, Sri Lanka, Sweden, Switzerland, Syria, Tanzania, Thailand, Trinidad and Tobago, United Kingdom, United States of America, Vietnam, Zaire.

Total number of acceptances: 47

#### B-6 (1967) Milk - Fat Content

Australia, Belgium, Canada, Denmark, Federal Republic of Germany, Finland, France, Hungary, India, Netherlands, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, USA.

Total number of acceptances: 16

B-6 revised (at Step (h) see Report of the Committee's 20th Session, Appendix III and Paras 68 to 74)

Total number of acceptances: 1 Brazil

#### B-7 (1967) Evaporated Milk & Sweetened Condensed Milks - Fat Content

Australia, Belgium, Brazil, Canada, Denmark, Federal Republic of Germany, Finland, France, Hungary, India, Netherlands, Norway, Spain, Sweden, Trinidad and Tobago, United Kingdom, USA.

Total number of acceptances: 17

B-8 (1967) Butter - Salt (Sodium chloride) Content

Australia, Belgium, Brazil, Denmark, Federal Republic of Germany, Finland, France, Hungary, India, Netherlands, Norway, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, USA.

Total number of acceptances: 18

B-9 (1978) Butter - Water, Solids-not-fat and Fat Content in the same test portion Brazil, Denmark, Philippines, Spain Total number of acceptances: A

B-10 (1973) Whey Cheese - Fat Content

Brazil, Denmark, Finland, Federal Republic of Germany, Hungary, Iran, Norway, Philippines, Sweden, United Kingdom

Total number of acceptances: 10

B-11 (1970) Whey Cheese - Dry Matter

Brazil, Denmark, Finland, France, Federal Republic of Germany, Hungary, Iran, Norway, Philippines, Sweden, United Kingdom

Total number of acceptances: 11

B-12 (1972) Cheese & Processed Cheese Products - Phosphorus

Denmark, Finland, Federal Republic of Germany, Hungary, Iran, Netherlands, Norway, Philippines, Spain, Sweden

Total number of acceptances: 10

B-12 revised (See Report of the Committee's 20th Session, Appendix III and Paras 68 to 74)

Total number of acceptances: 1 Brazil

B-13 (1972) Cheese & Processed Cheese Products - Citric Acid

Brazil, Denmark, Finland, Federal Republic of Germany, Hungary, Iran, Netherlands, Norway, Philippines, Spain, Sweden

Total number of acceptances: 11

B-14 (1972) Sweetened Condensed Milks - Sucrose (Polarimetric Method)

Brazil, Denmark, Finland, Federal Republic of Germany, Hungary, Iran, Netherlands, Norway, Philippines, Spain, Sweden

Total number of acceptances: 11

B-15 (1973) Cream - Fat Content

Brazil, Denmark, Finland, Federal Republic of Germany, Hungary, Iran, Norway, Philippines, Sweden, United Kingdom

Total number of acceptances: 10

B-16 (1978) Milk Fat - Vegetable Fat (Phytosteryl Method)

Brazil, Denmark, Hungary, Netherlands, Philippines, Sweden

Total number of acceptances: 6

B-17 (1978) Milk Fat - Vegetable Fat (Gas-Liquid Chromatography of Sterols) Brazil, Denmark, Hungary, Netherlands, Philippines, Sweden Total number of acceptances: 6

B-18 (1978) Cheese - Chloride Content

Brazil, Denmark, Hungary, Philippines, Poland, Sweden

Total number of acceptances: 6

B-19 (1978) Cheese - Nitrate & Nitrite Contents

Brazil, Denmark, Hungary, Philippines, Poland Total number of acceptances: 5

B-20 (1978) Anhydrous Milk Fat - Peroxide Value

Brazil, Denmark, Hungary Total number of acceptances: 3

B-22 (1982) Caseins and Caseinates - Water

Brazil, Hungary, Poland

Total number of acceptances: 3

B-23 (1982) Rennet Casein and Caseinates - Ash

Brazil, Hungary, Poland

Total number of acceptances: 3

B-24 (1982) Caseins - Fixed Ash

Brazil, Hungary, Poland

Total number of acceptances: 3

B-25 (1982) Caseins and Caseinates - Protein

Brazil, Hungary, Poland

Total number of acceptances: 3

B-26 (1982) Caseins and Caseinates - Free Acidity

Brazil, Hungary, Poland

Total number of acceptances: 3

B-27. (1982) Milk & Milk Products - Lactose Content in the presence of other reducing substances

Brazil, Hungary

Total number of acceptances: 2

B-28 (1982) Dried Milk - Titratable Acidity

Brazil, Hungary, Poland

Total number of acceptances: 3

ACCEPTANCE OF INTERNATIONAL INDIVIDUAL CHEESE STANDARDS

| Cheese Variety  | Belgium | Bulgaria | Brazil | Canada | Denmark | Finland | France | F.R. of Germany | Hungary | Iran | Ireland | Kenya | Malta] | Netherland | New zeland | Norway | Philippines | Poland | Spain | Sweden | Switzerland | Trinidad & Tobago | U.K | U.S.A | No. of Acceptance |
|---|---------|----------|--------|--------|---------|---------|--------|-----------------|---------|------|---------|-------|--------|------------|------------|--------|-------------|--------|-------|--------|-------------|-------------------|-----|-------|-------------------|
| C-1 Cheddar   |         | x        | x      | x      | x       | x       | x      | x               | o       | o    | o       |       |        | x          | o          |        |             | o      | o     | o      | x           | (**)              | o   | x     | 20                |
| C-2 Danablu   |         |          |        | x      | o       |         | x      | x               | o       | o    | o       |       |        | x          | x          | x)     |             | o      | o     | o      | x           | (**)              | o   | o     | 14                |
| C-3 Danbo   |         |          |        | x      | o       | x       | x      | x               | o       | o    | o       |       |        | x          | x          | x)     |             | o      | x     | o      | x           | (**)              | x   | o     | 15                |
| C-4 Edam  | o       | x        | x      | x      | o       | x       | x      |                 |         | o    | o       |       |        | o          |            |        |             | o      | o     | o      | x           | (**)              | o   | x     | 16                |
| C-5 Couda   | o       | x        | x      | x      | x       | x       | x      |                 |         | o    | o       |       |        | o          |            | x)     |             | o      | o     | o      | x           | (**)              | o   | x     | 16                |
| C-6 Havarti   |         |          |        | x      | o       | x       | x      |                 | o       | o    | o       |       |        |            | x          | x)     |             | o      | x     | o      | x           | x                 | x   | x     | 13                |
| C-7 Samsøe  |         |          |        | x      | o       | x       | x      | x               | o       | o    | o       |       |        | x          | x          | x)     |             | o      | x     | o      | x           | x                 | x   | x     | 15                |
| C-8 Cheshire  | o       |          |        | x      | x       | x       | x      | x               | o       | o    | o       |       | o      | x          |            | x)     |             | x      | o     | o      | o           | (**)              | o   | x     | 17                |
| C-9 Emmentaler  |         | x        | x      | x      | x       | x       | x      |                 | o       | o    | o       |       | o      | x          |            |        |             | x      | o     | o      | x           | (**)              | x   | x     | 16                |
| C-10Cruyère   |         |          | x      | x      | o       | x       | o      |                 | o       | o    | o       |       | o      | x          |            | x)     |             | o      | o     |        | x           | (**)              | o   | x     | 15                |
| C-11Tilsiter  |         |          | x      | x      | o       | x       | x      | x               | o       | o    | o       |       |        | x)         |            | x      |             | x      |       |        | x           | x                 | x   | x     | 14                |
| C-12Limburger   | x       |          | x      |        | o       | x       | x      | x               | o       | o    | o       |       |        | x          |            |        |             | x      |       |        |             | x                 | x   | x     | 13                |
| C-13Saint-Paulin                                      |         |          | o      | x      |         | x       | x      |                 | o       | o    | o       |       |        |            |            |        |             | o      |       | o      | x           | x                 | o   |       | 11                |
| C-14Svecia  | x       |          |        | x      | o       | x       | x      | x               | o       | o    | o       |       |        | x          |            | x)     |             | x      |       | o      | x           | x                 | x   | x     | 14                |
| C-15Provolone   | x       |          | x      | x      | x       | x       | x      |                 | o       | o    | o       |       |        | x          |            |        |             | x      |       |        |             | (**)              | x   | x     | 13                |
| C-16Cottage Cheese<br>incl. Creamed<br>Cottage Cheese | x       |          | x      |        |         | x       | x      |                 | o       | o    | o       |       |        |            |            |        |             | x      |       |        |             | (**)              | x   | x     | 10                |
| C-17Butterkäse  | o       |          |        | x      | o       | x       | x      | x               | o       | o    | o       |       |        | x          |            |        |             | x      | x     |        |             | x)                |     |       | 11                |
| C-18Coulomraiers                                      |         |          | x      | x      |         | x       | o      |                 | o       | o    | o       |       |        | x          |            | x)     |             | o      | x     |        | x           | x)                | o   |       | 11                |
| C-19Gudbrandsdalsost<br>(whey cheese)                 |         |          |        |        | x       | o       | x      | x               | o       | o    | o       |       |        | x          | o          |        |             | x      | o     | o      | o           | x                 | x)  |       | 12                |
| C-20Harzer Käse                                       |         |          |        | x      | x       | x       | x      | o               | o       | o    | o       |       |        | x          |            |        |             | x      | o     | o      |             | x)                | x   |       | 11                |
| C-21Herrgärdsost                                      |         |          |        | x      | o       | x       | x      |                 | o       | o    | o       |       |        | x          |            | x)     |             | x      | o     | o      | o           | x)                | x   |       | 11                |
| C-22Hushällsost                                       |         |          |        | x      | o       | x       | x      |                 | o       | o    | o       |       |        | x          |            | x)     |             | x      | o     | o      | o           | x)                | x   |       | 11                |
| C-23Norvegia  |         |          |        | x      | o       | x       | x      |                 | o       | o    | o       |       |        | x          |            | o      |             | x      | o     | o      | o           | x)                | x   |       | 13                |
| C-24Maribo  | x       |          |        | x      | o       |         | x      |                 | o       | o    | o       | o     |        |            | x)         |        | o           | x      |       | o      | x           |                   |     |       | 9                 |
| C-25Fynbo   | x       |          |        | x      | o       |         | x      |                 | o       | o    | o       | o     |        |            | x)         |        | o           | x      |       | o      | x           |                   |     |       | 9                 |
| C-26Esrom   |         |          |        | x      | o       |         | x      | x               | o       | o    | o       |       |        | o          |            | x)     | o           | x      | x     |        | x           | x                 |     |       | 10                |
| C-27Romadur   |         |          |        | x      | o       | o       | o      | o               | o       | o    | o       |       |        | o          |            |        | o           | x      | x     |        | x           | x                 |     |       | 11                |
| C-28Amsterdam   |         |          |        | x      | o       |         | x      | x               | o       | o    | o       |       |        | o          |            | x)     | o           | o      | x     |        | x           |                   |     |       | 10                |
| C-29Leidse  |         |          |        | x      | o       |         | x      | x               | o       | o    | o       |       |        | o          |            | x)     | o           | o      | o     |        | o           |                   |     |       | 10                |
| C-30Friese  |         |          |        | x      | o       |         | x      | x               | o       | o    | o       |       |        | o          |            | x)     | o           | o      | o     |        | o           |                   |     |       | 10                |
| C-31Cream Cheese                                      |         |          |        | x      | x       | x       |        |                 |         | o    | o       |       |        |            |            |        |             | x      |       |        | x           |                   |     |       | 5                 |
| C-32Blue-Veined                                       |         |          |        | x      |         | x       | x      |                 | o       | o    | o       |       |        |            |            |        |             | x      |       |        | x           |                   |     |       | 6                 |
| C-33Camembert   |         |          |        | x      |         | o       | x      |                 | o       | o    | o       |       |        | x          |            |        |             | o      |       |        | o           |                   |     |       | 7                 |
| C-34Brie  |         |          |        | x      |         | o       | o      |                 | o       | o    | o       |       |        | x          |            |        |             | o      |       |        | o           |                   |     |       | 7                 |
| C-35Hard Grating<br>Cheese                            |         |          |        |        |         |         |        |                 | o       |      |         |       |        |            |            |        |             | x      |       |        |             |                   |     |       | 2                 |

o = acceptance

x = acceptance with certain reservations

(\*\*) = 'target acceptance' according to the Codex

x) = Cheese meeting the standard concerned could be freely distributed within the territorial jurisdiction of the country

## MATTERS OF INTEREST TO THE COMMITTEE

7. The Committee had before it Document MDS 86/4 containing matters of interest arising from the 15th and 16th Sessions of the Codex Alimentarius Commission as well as matters arising from the Codex Committees on Food Labelling, Food Additives, Food Hygiene, Processed Meat and Poultry Products and Fats and Oils. It also had before it a Working Paper prepared by IDF (MDS 86/4 - Add. 1 and 2) on the use of product names laid down in Codex Standards as part of the name of similar products.

8. The working paper was introduced by the Secretariat which suggested that, with the exception of one matter of interest to the Committee, all other matters should be considered under other appropriate items on the Agenda. The one matter which should be considered under the present item was the decision of the Commission at its 16th Session that the Milk Committee need not adjourn sine die but that it could meet no more frequently than once every second FAO financial biennium should, in the opinion of the Commission, such a Session be warranted.

9. The Committee expressed its appreciation to the Commission for having made it possible that the work on the standardization of milk and milk products could be continued. The observer of IDF also expressed its Organization's appreciation to the Commission for enabling the Committee to carry on its work. However, the Observer pointed out that meeting not more than once every four years would cause difficulties of a practical nature and suggested that an arrangement be made which would enable the technical work of the Committee to be continued between the sessions of the Committee. The Chairman agreed that some arrangement of this kind was indeed necessary and suggested that a group of persons (Chairman, two Vice-Chairmen and Secretariat) be charged with this task. It was agreed to discuss this matter further later in the agenda (see Para 146).

10. The Committee agreed with the suggestion of the Secretariat that the matters of interest arising from the various sessions of the Commission and of Codex Committees be discussed under the appropriate agenda items. The Chairman of the Committee suggested, and the Committee agreed, that a Working Group be set up to discuss the questions relating to labelling (revision of standards in the light of the Codex General Standard for the Labelling of Prepackaged Foods, and declaration of fat content and sodium chloride content).

11. The following delegations indicated their interest to participate in the Working Group: U.S.A., Federal Republic of Germany, Switzerland, Belgium, France, Norway and Canada. In addition representatives from the IDF and EEC indicated their interest to participate. Mrs. B. Dix of the Secretariat was requested to act as Secretary of the Working Group which would elect its Chairman and prepare a report for the Committee during the Session.

12. The Committee agreed that the question of the use of names appearing in Codex Standards as part of names of similar products should be discussed in plenary session. However, it was noted that the matter had not yet been settled by the Commission and that an in-depth discussion on the topic would take place at the next session of the Codex Committee on Vegetable Proteins.

13. The delegation of Belgium drew the Committee's attention to a number of problems which should be considered in relation to milk and milk products as these problems could give rise to barriers to trade and, in any event, required consideration from a point of view of consumer protection. These problems related to the presence in

milk and milk products of heavy metal contaminants, pesticide residues, PCBs, antibiotic residues and radio-active contaminants. In addition, the issue of health certificates for dairy animals indicating the acceptability of milk and milk products from such animals created difficulties in trade, In replying, the Secretariat outlined the various ongoing activities within Codex and the FAO in these areas. As regards the issue of health certificates the Secretariat was of the opinion that this was a matter for divisions dealing with veterinary public health and meat production. Regarding contamination of food as a result of radio-active fall-out the Secretariat informed the Committee that this matter was being considered actively by WHO, IAEA and other bodies and that FAO had also given some preliminary consideration to this matter. It was agreed to return to this question when discussing future work.

#### FOOD ADDITIVES

14. The Committee had before it Documents MDS 86/7, MDS 86/7 - Add. 1 and Corrigendum and MDS 86/7 - Add.2 dealing with various questions relating to the use of food additives. The relevant part of Documents MDS 86/4 (see para 7) was also considered by the Committee.

15. On the invitation of the Chairman of the Committee, Dr. J.P. Modderman, member of the Joint FAO/WHO Expert Committee on Food Additives currently meeting in Rome, gave an outline of the information sought by the Codex Committee on Food Additives (CCFA) in order to enable it to endorse food additive provisions in Codex Standards. Dr. Modderman also expressed the opinion that the various papers before the Committee concerning food additives would serve as a useful starting point in the preparation of statements justifying the use of the particular food additives under consideration by the Committee. It was also important to provide sufficient information to the CCFA so that the intake of food additives could be estimated in relation to the ADI. The Secretariat underlined the importance of including food additive provisions in Codex Standards which could be enforced on the finished product moving in trade,

#### Hexamethylene tetramine (HMT)

16. The Committee noted that the CCFA had not endorsed the provision for HMT in the standard for provolone cheese in the absence of adequate technological justification. It was also noted that HMT had been given an ADI by JECFA but that JECFA had recommended that HMT should not be used in food which contained nitrate since this could lead to the formation of nitrosamines. The delegation of Italy confirmed that research was in progress in that country and that it was expected that a report would be submitted to the CCFA in due course. Preliminary results indicated that HMT and its breakdown product formaldehyde reacted with components of milk products.

17. The Committee noted that there were still some unresolved questions concerning the safe use of HMT and agreed that its role was to consider the technological justification for the use of this substance in the preparation of provolone cheese. The Committee reconfirmed the provision for HMT in provolone cheese and recommended that appropriate information on the fate of HMT in cheese and other data relating to the technological use of this substance be generated without delay and be submitted to the CCFA for evaluation.

#### Natamycin

18. In introducing the paper MDS 86/7 the Observer of IDF pointed out that one of the problems which had to be resolved was to clarify what was meant by the "rind" of a cheese so that the provision of 2 mg/kg natamycin in the rind which was endorsed in

1977 by the CCFA could be enforced. Another problem was to identify the cheeses in which the use of natamycin should be permitted. The Committee noted that document MDS 86/7 provided some answers to these questions but also noted that the use of natamycin for surface treatment of cheese with rind was still under discussion. In various countries including the EEC, some countries were asking for the use of natamycin also on rindless cheese. The delegation of Australia suggested the use of natamycin up to a level of 10 mg/kg in any part of the cheese. The delegation of Norway suggested that the Committee support the recommendations of IDF as given in document MDS 86/7.

19. Following discussion of the merits of the IDF statement on the use of natamycin in the manufacture of cheese the Committee agreed that natamycin should be permitted for the surface treatment of cheeses having a rind without surface ripening or with only a smear producing flora. The question of the use of natamycin for the surface treatment of rindless cheese was left open for the time being. As regards the permitted level of natamycin this should be changed to a maximum of 2 mg per square dm with a maximum penetration of natamycin of 5 mm into the cheese. The maximum permitted level of natamycin in plastic coatings should remain 0.05%.

20. It was agreed that a provision for natamycin could be made in International individual cheese standards if the relevant depositing countries wanted such a provision.

#### Lysozyme

21. The Observer of IDF in introducing document MDS 86/7-Add.I expressed the opinion that the use of lysozyme could be effective against late blowing of certain cheese varieties. The Observer of IDF recommended that governments be invited to express their opinion on the use of this enzyme indicating the cheeses where such use could be appropriate. The delegation of France supported the suggestion of IDF. The delegation of Belgium pointed out that there was not complete agreement on the effectiveness of lysozyme in preventing late blowing. The Observer of IDF confirmed that lysozyme was not considered a satisfactory alternative to nitrates in certain varieties of cheese.

22. The Committee agreed that governments should be invited to comment on the information provided by IDF as presented in document MDS 86/7-Add.I and to indicate the cheese varieties where the use of lysozyme could be appropriate.

#### Annatto

23. The Committee noted that the provision for annatto as expressed at the present time in various standards for cheese had not been endorsed by the CCFA. It also noted that JECFA had established an ADI for annatto expressed as bixin/ norbixin. The reason why the CCFA had not endorsed the provision for annatto was due to the fact that the provision for annatto in the cheese standards was not expressed in terms of the colouring principle bixin or norbixin. The CCFA had considered a maximum level proposed by IDF of 35 mg/kg for annatto expressed as bixin/norbixin but had postponed its endorsement since such levels were considered to be too high in relation to the ADI. The CCFA had been informed by NATCOL that a level of 10 mg/kg of this colour would be normally used in foods in general. IDF informed the Committee that the figure of 35 mg/kg which had been considered by the CCFA was a level required only by certain highly coloured cheese varieties. For most cheese varieties a level of 10 mg norbixin per kg cheese was acceptable.

24. The delegation of the United States provided estimates of norbixin levels in two major varieties. Cheddar: 8-22 mg/kg; Processed American: 2-19 mg/kg. These levels

were not analytical values, but were calculated values based upon the bixin/norbixin content of commercial annatto-derived preparations (all bixin is converted to norbixin in cheese) (see Appendix III).

25. The Committee agreed that the issue at hand was to determine what amount of annatto should be provided for in particular cheese varieties expressed in terms of bixin/norbixin which would correspond to traditional practice. The question of intake as compared to the ADI was a matter which would have to be considered and resolved by the CCFA. It was therefore agreed that governments be invited to provide information on the amounts of annatto expressed as bixin/norbixin which should be provided for particular cheeses. The Committee noted that in the meantime the provision for annatto (600 mg/kg as annatto extract) would remain in the standards concerned.

#### Karaya and Xanthan Gums

26. The Delegation of the USA provided the Committee with technical Information on the use of these two gums in the preparation of certain cheese, i.e. creamed cottage cheese, cream cheese and of processed cheese preparations. In addition, the delegation provided possible intake estimates of Karaya and Xanthan gums. The information is given in Appendix IV.

27. The Committee agreed that its function at the present session was to provide further technological justification for the use of the two gums in question and to consider the possible establishment of lower maximum levels for these gums than the levels at present provided for in the standards. Following discussion, the Committee did not consider it necessary to make any change to the maximum levels for Karaya and Xanthan gums included in the various standards and expressed the hope that the information included in Appendix IV would resolve the question raised by the CCFA.

#### Calcium Hydrogen Carbonate

28. The Committee had before it a room document, MDS 86/4-Add.3, prepared by the Secretariat informing the Committee that the JECFA had not been able to allocate an ADI for this chemical on the ground that it did not have information on its use in food. This situation required action by the CCFA leading possibly to the withdrawal of the endorsement of this additive.

29. The Committee considered the question of whether calcium hydrogen carbonate was actually being used in the manufacture of milk and milk products. In the absence of information on this question it decided to request governments to indicate the exact calcium salts used in the preparation of milk products.

30. The point was made that the standards for evaporated milks sweetened condensed milks, milk powders, cream and cream powders contained a general provision for the use of various stabilisers consisting of the sodium, potassium and calcium salts of various inorganic acids. This general provision made it possible for the food industry to select appropriate stabilisers. The Committee agreed that governments be invited to indicate the individual salts actually used in the preparation of these products so that appropriate specifications could be drawn up through the mechanism of JECFA/CCFA.

#### Revision of Standard N2 A.2 - Milk Fat Products Including Ghee

31. The Committee considered a working paper, MDS 86/5 prepared by the IDF containing a redraft of the standard for anhydrous milk fat, anhydrous butter oil and

butter oil on the basis of government comments. In addition the document contained a proposed standard for ghee. The document was introduced by the Observer of IDF.

32. The Delegation of India queried why separate standards should be elaborated for products which only differed in terms of the use of antioxidants. The Delegation of Denmark wished to be informed why IDF had proposed revised standards which were stricter in respect of fat and moisture content. The Observer of IDF pointed out that the redrafts had been prepared on the basis of comments received from IDF members and represented the majority view. The Committee decided to examine the revised standard section by section, The following paragraphs represent the discussions which took place. Sections on which no discussions took place were acceptable to the Committee.

#### Section 2.2.3 - Maximum Free Fatty Acids Content

33. The Delegation of the Federal Republic of Germany drew the Committee's attention to the use of cultured butter as a source in the preparation of anhydrous butter oil. Using this type of source material the maximum free fatty acid content of 0.3 provided for in the revised standard could not be met. The Delegation proposed a maximum limit of 0.35% m/m. The proposal of the Federal Republic of Germany did not meet with any support from the Committee. The question was raised as to whether the method included in the standard, which did not distinguish between the various acids present in the product, might not account for the higher levels of acidity encountered in the Federal Republic of Germany. The Committee decided not to change the free fatty acids content as proposed above but agreed that the methods of analysis should be examined in order to resolve the problem raised by the Federal Republic of Germany.

#### Section 2.3.4 - Maximum Peroxide Value

34. The Delegation of India drew the Committee's attention to that country's long standing experience with butter oil containing peroxide value above 0.6. The Delegation pointed out that products with a higher peroxide value than 0.6 had recognizable organoleptic properties which detracted from the quality of the product. The Indian Delegation therefore suggested that the maximum peroxide value of 0.8 proposed by IDF be lowered to 0.6. Following a detailed discussion, and information from the representative from EEC that a maximum value of 0.5 was provided for in the EEC, the Committee decided to lower the maximum peroxide value to 0.6.

#### Section 3.2.1 - Antioxidants

35. The Delegation of Belgium, supported by the Delegation of Italy, expressed their reservations against the use of BHA and BHT in anhydrous butter oil and butter oil. It was noted that the level for antioxidants was the same as that included in the existing standard and that it referred to a total amount of antioxidants singly or in combination, with gallates not exceeding 100 mg/kg.

#### Section 4 - Labelling

36. The Committee noted that this section would be revised on the basis of the recommendations of the Working Group on Labelling (see Para 80). The Delegation of India was of the opinion that the date of manufacture should be declared on the label. The Committee decided to bring this opinion to the attention of the Working Group.

#### Section 5.7 - Determination of Dissolved Oxygen Content

37. The Committee was informed that the ISO/AOAC/IDF Group was working on a suitable method to determine dissolved oxygen content. Once finalized, the method would be introduced into the standard in accordance with the accepted procedures.

### Status of the Revised Standard

38. The Committee decided to advance the Standard to step 7 of the procedure (see Appendix XV).

### Consideration of the Standard for Ghee

39. In introducing this standard the representative of IDF informed the Committee that the standard had been adopted by the majority of the members of IDF. The Committee was in general agreement with the draft prepared by IDF and had no specific remarks to make on it. It was noted, however, that the section on labelling would have to be amended on the basis of the conclusions of the Working Group on Labelling. The delegation of India made similar remarks in relation to the section on date marking (see para 36).

### Status of the Standard

40. The Committee decided to advance the Standard to step 7 of the procedure (see Appendix XV).

### Draft Standard for Low Fat Dairy Spreads

41. In introducing document MDS 86/5A the representative of IDF informed the Committee that the standard was based closely on the existing Codex Standard for Minarine.

### Section 2.2.3

42. The Committee noted that the revised Codex General Standard for the Labelling of Prepackaged Foods contained a definition of "lot". It was therefore decided to delete this section.

### Section 3.1.5 - Edible Milk Protein

43. The Delegation of the UK was of the opinion that the specific provision for a percentage edible milk protein should not be part of the section listing essential raw materials but should be optional. The Committee agreed to bring this to the attention of governments when requesting comments on the standard.

### Section 4.4 - Thickening Agents

44. The Committee noted that the maximum limit of 10 g/kg for thickening agents covered section 4.4.1 to 4.4.10 and should be corrected in the draft standard to indicate this fact.

### Section 8 - Labelling

45. The Committee requested the Secretariat to bring this section into line with the decisions of the Working Group on Labelling. The Delegation of the Netherlands made a proposal for certain restrictions for the fat-containing raw materials in case the words "butter" or "milkfat" are used as part of the name of the product. The Committee considered that these technical comments would be best presented in writing when commenting on the standard. The Delegation of Switzerland made comments concerning the restrictive use of the word "butter" in Switzerland. The Committee agreed to place section 8.1.1 in square brackets and to request governments to indicate the various names used to designate low fat dairy spreads.

## Section 9 - Methods of Analysis

46. The Committee noted that the ISO/AOAC/IDF group would complete this section with appropriate methods of analysis in accordance with the accepted procedures.

### Status of the Standard

47. The Committee decided to advance the draft standard to step 3 of the procedure in order to obtain government comments (see Appendix XIV).

### PRESERVATION OF RAW MILK QUALITY BY UTILIZATION OF NATURAL ANTIBACTERIAL SYSTEMS IN MILK

48. At its 20th Session, the Milk Committee had requested the IDF to review a document submitted by the delegation of Sweden which contained details of a method which made use of a naturally present antibacterial system in the raw milk for its preservation. The method suggested would be used for preservation of milk in emergency situations and could prove beneficial to developing countries. The document, which the IDF had prepared - MDS 86/6 - was introduced on behalf of IDF, by the delegate of Sweden who emphasized that the so-called lactoperoxidase system could be used to prevent bacterial spoilage of raw milk by activating this system - which is naturally present in milk - through the addition of approximately 8 ppm of H<sub>2</sub>O<sub>2</sub> and 10 ppm of sodium thiocyanate. He further pointed out that field experiments had been carried out in several countries i.e. Kenya, Sri Lanka, India, Pakistan and the People's Republic of China which all confirmed that the method was functioning under practical conditions and could be of great value in preventing bacterial spoilage of raw milk stored and collected at ambient temperatures.

The Swedish delegate referred to the conclusion of the IDF that this method has several important advantages compared to the use of H<sub>2</sub>O<sub>2</sub> singly. The method was therefore an acceptable alternative of preventing deterioration of raw milk in the early stages of an organized dairy industry when technical and/or economical reasons do not allow the adoption of cooling facilities for maintaining the quality of raw milk. IDF had recommended that the practical use of this method should be further evaluated. The Swedish delegate therefore proposed that a Code of Practice be elaborated for the method by the Milk Committee in cooperation with the IDF.

49. The Secretariat stressed that FAO's major concern was the small milk producer for whom the sale of milk might be the only regular daily or weekly cash income. Under conditions lacking an adequate infrastructure for milk collection and transport of milk, raw milk preservation is the only means to collect this milk as a safe and wholesome food in liquid form.

50. The Secretariat then referred to the work of the FAO/WHO Expert Panel on Milk Quality which had already in 1967 considered the conditions for the use of hydrogen peroxide for preserving milk when technical and/or economic reasons did not allow the adoption of cooling facilities for maintaining the quality of raw milk. The Expert Panel had concluded that the use of H<sub>2</sub>O<sub>2</sub> may be an acceptable alternative in the early stages of development of an organized dairy industry provided that a number of conditions, are complied with.

51. In reply to a question by the delegate of India as regards the safety of the preservation of raw milk by activating the lactoperoxidase using thiocyanate, the delegate of Sweden referred to clinical tests carried out in Sweden and Sudan with the support of the University Hospital of Uppsala which had shown very satisfactory results.

The delegate of Sweden also pointed out that the method has been approved by the Swedish National Food Administration to be used in certain situations, i.e. when it is not possible to refrigerate the milk. The delegate of the United Kingdom also referred to the aspect of the use of this system in relation to organisms of public health significance and assumed this could be taken into account within the IDF considerations.

52. The Committee agreed to a proposal by the delegate of Sweden to prepare a Code of Practice on Raw Milk Preservation using the LP system and asked the IDF to prepare a first draft.

53. The IDF, taking into account the suggestions of the delegates of India and Sweden, to accelerate this work, was prepared to have a first draft ready before the IDF Annual Session in September 1986.

54. The Secretariat would in due course involve the appropriate Codex Committees.

#### DEFINITION OF HEAT TREATMENTS OF MILK

55. At its 20th Session the Milk Committee had considered definitions proposed by the Governments and by the International Dairy Federation (IDF) for pasteurization, UHT and sterilization of milk and fluid milk products and decided that governments be invited to comment on the proposals of IDF and on the comments and definitions provided by governments as given in Appendix II of the Milk Committee's Report of the 20th Session.

56. The Milk Committee noted the comments received from governments and definitions proposed by the IDF as given in document MDS 86/10.

57. Following a proposal by the Chairman, the Milk Committee discussed a definition for Pasteurization proposed by the delegate of the United States which took into account the definition prepared by the IDF. After a brief discussion the Committee adopted the following definition:

"Pasteurization is a heat treatment process applied to a product with the aim of avoiding public health hazards arising from pathogenic microorganisms associated with milk. Pasteurization as a heat treatment process is intended to result in only minimal chemical, physical and organoleptic changes.

#### NOTE:

Pasteurization is intended to avoid public health hazards in the sense that, although it may not destroy all the pathogenic microorganisms which may be present. it reduces the number of harmful microorganisms to a level at which they do not constitute a significant health hazard. Pasteurization also extends the keeping quality of some products by reducing the number of spoilage micro-organisms in the product."

58. As regards the definitions of sterilization of milk and of milk designated "sterilized" and "UHT" the Milk Committee decided to invite governments to comment on the definitions prepared by the IDF and contained in Appendix I to Document MDS 86/10. The comments received from governments would be sent by the Secretariat to the IDF for consideration during the further work IDF was undertaking in finalizing these definitions (see Appendix V).

## AMENDMENTS OF STANDARDS

### Amendments of International Individual Cheese Standards

59. At its 20th Session the Milk Committee had been informed by the delegation of Denmark that varied consumer needs and requests in the international market induced them to amend their national legislation with regard to cheese standards C-2 Danablu, C-3 Danbo, C-6 Havarti, C-7 Samsøe, C-24 Maribo, C-25 Fynbo, C-26 Esrom, C-32 certain blue- veined cheeses.

60. The Milk Committee agreed to seek government comments on the suggested amendments. The proposed amendments were given in Appendix VII to the Report of the 20th Session of the Milk Committee and as footnotes to the above mentioned standards in the 8th Edition of the Code of Principles and International Cheese Standards (CAC/ Vol. XVI-Ed. 1) 1984.

61. The Milk Committee took note of the comments obtained from governments given in document MDS 86/9 and of a statement by the delegate of Denmark who agreed to a slight change of the amendments in Standards C-3 and C-7 which were based on the comments by the Government of Spain. These changes were as follows:

#### Standard C-3 Danbo

Paragraph 4.3.2 should read "4.3.2 Weights: approx. 6 kg"

#### Standard C-7 Samsøe

Paragraph 4.4 should read "4.4 Rind: the cheese may be manufactured with or without rind."

62. The Milk Committee approved the amendments proposed by the Government of Denmark with the changes given above.

### Amendment of Standard A-I for Butter and Whey Butter

63. At its 20th Session the Milk Committee had considered and adopted a proposal by the IDF to revise Standard A-I for Butter by including the following provisions for maximum copper content:

|                     |                    |
|---------------------|--------------------|
| Standard A-I Butter | Max. 0.05 mg Cu/kg |
|---------------------|--------------------|

64. Governments were requested to comment on this decision for discussion and approval of the revised standard at the Milk Committee's 21st Session.

65. The Milk Committee took note of the comments received from governments given in Document MDS 86/9. After an introduction by the observer of the IDF the delegate of Switzerland indicated his agreement with the copper content of 0.05 mg/kg for premium quality butter, but suggested that the copper content for whey butter should be 0.5 mg Cu/kg as copper was necessary for the manufacture of Emmental cheese.

66. The observer from the IDF pointed out that the maximum level of 0.05 mg Cu/kg of the product referred to butter only and not to whey butter.

67. The Milk Committee accepted this amendment.

### Amendments of Standards N<sup>o</sup> A-3 for Evaporated Milk and A-4 for Sweetened Condensed Milk

68. At its 20th Session the Milk Committee had noted proposals by the delegation of Spain to amend Standards A-3 and A-4 by inserting provisions for maximum fat contents

for skimmed evaporated and skimmed condensed milks and minimum milk solids-not-fat contents for other evaporated and condensed milks to distinguish between half-skimmed and high-fat products. Following a suggestion by the Chairman, the delegation of Spain agreed to send a detailed proposal for amendments of Standards A-3 and A-4 to IDF for review.

69. The IDF had prepared revised standards which were contained in Document MDS 86/9.

70. After an introduction by the IDF Observer the Milk Committee considered the standards point by point with the exception of the labelling provisions which were being dealt with by the Working Group on Labelling Provisions established at the first day of the Milk Committee's 21st Session.

#### Draft Standard A-3

71. The Milk Committee did not accept a suggestion by the delegation of Switzerland to retain the original wording of para 2.1.1 and 2.1.3 i.e. minimum milk fat content of 7.5% m/m and a (total) milk solids content of 25% m/m instead of the new wording which was "minimum milk fat content 7.5% m/m and milk solids not-fat content 17.5% m/m". The reason was that the new text prevented the possibility of replacing milk solids-not-fat by milkfat.

72. The delegation of India referred to evaporated UHT milk which was now being tried out in India with the addition of sugar in amounts lower than those foreseen for sweetened condensed milk in which sugar was used in amounts sufficient for the preservation of the product. He suggested that a relevant provision be included in the draft standard. The Milk Committee also noted an observation of the delegation of the United Kingdom that the addition of sugar to evaporated milk was permitted under Article 3 "Composite Products" of the Code of Principles as indicated by the Note on Article 3 which listed sweetened dried milk as an example.

#### Draft Standard A-4

73. The Committee did not accept a suggestion of the Swiss delegate to amend para 2.1.2 in a similar manner as proposed for para 2.1.2 of Standard A-3.

74. The Milk Committee agreed that the two standards should be sent to governments for comments at Step 5 of the Procedure for the Elaboration of Milk Product Standards.

#### STANDARD METHODS OF ANALYSIS

75. The Committee had before it a room document 86/12 prepared by the IDF/ISO/AOAC Group which met in Rome on 30 May 1986 prior to the session of the Committee. The report of the group was introduced by its Chairman, Mr. Boelsma (ISO).

76. The Committee noted that the Group had submitted for action at step d some 16 methods. As regards methods for the determination of pesticide residues, PCBs and aflatoxins the Group had requested guidance from the Committee concerning the desirability of publishing these methods. The Secretariat explained that the Codex Committee on Food Additives would consider the question of setting maximum levels for aflatoxins in foods and would, therefore, also consider appropriate methods of analysis and sampling to check compliance with such maximum levels. FAO was planning to hold a conference on aflatoxins in 1987 where problems concerning this contaminant would be discussed. The CCFA was looking for advice from such a conference and also from other groups of experts in order to enable it to make recommendations in relation to

aflatoxins in food. As regards pesticide residues and environmental contaminants such as PCBs, these questions were being considered by the Codex Committee on Pesticide Residues. The CCPR was working with the assistance of a working group on methods of residue analysis. The Secretariat suggested that the methods elaborated by the IDF/AOAC/IDF Group should be referred to the Codex Committees on Food Additives and Pesticide Residues for further action.

77. The Committee agreed with the recommendation of the Secretariat and expressed the opinion that milk and milk products should be considered by the CCFA and the CCPR in view of the fact that these products were consumed by vulnerable groups such as infants and children.

78. The Committee also noted that the Group had elaborated revised methods at step f and had submitted methods for action at step g. The Group had submitted for action at step h a number of methods, two of which had been re-submitted as they had not been included in the report of the 20th Session. The Group had also identified a number of gaps in the coverage of quantitative provisions for which methods of analysis had to be elaborated. As regards methods for the determination of food additives the Group had noted that some 130 or more additives had been included in various standards. The Group had agreed on a set of criteria to be followed for the selection of methods for the determination of additives as a matter of priority.

79. The Committee noted that the Tripartite Cooperation between IDF, ISO and AOAC had been initiated some 20 years ago and had become a model for cooperation between International Organizations active in the field of standardization of methods of analysis. The Committee expressed its appreciation to these three Organizations for the excellent work they had carried out on behalf of the Committee. The Secretariat was requested to look into the question of publishing the numerous methods agreed on at the recent session of the group as the report of that Committee was not considered to be adequate for their presentation. The report of the IDF/ISO/AOAC group meeting is given in Appendix VI.

#### LABELLING SECTIONS IN MILK PRODUCT STANDARDS

80. During the first day of its 21st Session the Milk Committee established a Working Group to deal with the labelling provisions for milk product standards using document MDS 86/8 which had been prepared by the Secretariat. The Working Group prepared a report which was presented by the Chairman of the Group, Dr P. Pittet (Switzerland) to the plenary session of the Milk Committee (See Appendix VII \*). Due to lack of time the Milk Committee was not in a position to discuss the report item by item but - following a proposal by the Chairman of the Milk Committee - concentrated its deliberations on the following major questions:

\* Appendix 1 to the Working Group Report is not included in this Report. It will be used by the Secretariat in amending the Labelling Sections of the Milk Product Standards.

- whether a full or a reduced list of ingredients should be declared;
- the declaration of the country of origin (manufacture);
- whether provisions for irradiation should be included in the labelling provision;
- what information should appear on non-retail containers.

## Declaration of Ingredients

81. The Milk Committee noted that a decision had to be taken as to whether:
- (a) a complete list of ingredients was to be declared in accordance with the provisions of the General Standard for the Labelling of Prepackaged Foods (Ref. N2 CODEX STAN 1-1985) hereafter referred to as the "General Standard" or whether
  - (b) exceptions from declaring a complete list of ingredients could be made, in which case a justification for the exceptions would have to be provided to the CCFL.

82. In this context the Milk Committee's attention was drawn to the fact that the standards it had elaborated in the recent years demanded the declaration of a complete list of ingredients (Standards for Processed Cheese, Cream and Yoghurt), whereas the Standards elaborated earlier (i.e. the Standards for Butter, Evaporated Milk and Sweetened Condensed Milk) did not foresee any labelling of ingredients. A third group comprised Standards (for milk powders and cheese) which contained provisions for a selected list of ingredients.

83. The Milk Committee also noted that food additives defined as processing aids need not be declared on the label in accordance with the General Standard. The definition of processing aids is contained in Appendix VIII.

84. In the ensuing discussion mainly the following views were expressed:
- (i) taking into account that there was a strong trend to declare a full list of ingredients and that the Milk Committee had already included such provision in a number of Milk Product Standards, there was a need for consistency and consequently provisions for declaring a complete list of ingredients were to be incorporated in the labelling sections of all Milk Product Standards.
  - (ii) Exceptions from declaring a complete list of ingredients were justified in cases where no ingredients other than e.g. starter cultures, enzymes and milk were used for the manufacture of the product, like for certain types of butter or cheese. Starter cultures and enzymes could be considered as processing aids.
  - (iii) "Single ingredient foods" would not need the declaration of a list of ingredients (such as unsalted butter manufactured without any addition).

85. The Milk Committee finally agreed that "a complete list of ingredients shall be declared in accordance with Section 4.2 of the General Standard" It was noted that Section 4.2 exempted single ingredient foods from declaring a list of ingredients. The delegation of the U.K. and France pointed out that this was not consistent with the requirements of the EEC Directive on Labelling. The Committee noted that Governments could always accept any of the revised standards subject to deviation, which would permit them not to declare all

86. The IDF declared its willingness to review all food additives in Milk Product Standards with a view to identifying those which would be considered processing aids and also to ensure that the accepted class names according to Section 4.2 of the General Standard would be used in all Milk Product Standards.

87. As regards the term neutralizing salts the Milk Committee adopted the class name "acidity regulators" given in the General Standard. However, the delegate of India was of the opinion that neutralizing salts should be declared as such and that the term "acidity regulators" was likely to mislead the consumer,

#### Declaration of the country of Origin (Manufacture)

88. The Milk Committee noted the proposal of the Working Group to use the term "country of origin" in the Milk Product Standards in accordance with the General Standard rather than the term "country of manufacture". The Milk Committee, after some discussion agreed to the following labelling provision "The country of origin of the food shall be declared in accordance with Section 4.5 of the General Standard". However the Milk Committee exempted the labelling provisions for the General Standard for Cheese A-6 from this decision. The Milk Committee recalled that the series of International Individual Cheese Standards referred to a number of depositing countries of the standards concerned as "countries of origin". In order to avoid any ambiguity the Milk Committee decided to reserve the term "country of origin" for the country from which the variety originated and retained the term "country of manufacture" in the Standard A-6:

89. The label declaration would thus read:

#### "Country of Origin (Manufacture)

The Country of manufacture shall be declared in accordance with Section 4.5 of the General Standard. In particular, a cheese with the name of a variety and not manufactured in the country from which the variety first originated shall be marked with the name of the country of manufacture even when sold on the home market".

#### Provisions for Irradiation

90. The Milk Committee noted that the inclusion of a provision for irradiation might be desirable in the future in order not to hinder possible further developments. However, as the General Standard was still under review in this respect, no such provision should be included for the time being in the Milk Product Standards.

#### Labelling of Non-Retail Containers

91. The Milk Committee noted that in principle all the Information required for prepackaged food should be supplied in relation to products supplied in bulk and that a decision was to be taken as to which Information would appear on the non-retail container itself and which in the accompanying documents.

92. The Committee agreed with the proposal of the Working Group that the name of the product, the lot Identification, and the name and address of the manufacturer or packer appears on the container and that the container may carry the date of manufacture which was considered more relevant for stored products than - the date of minimum durability. Governments should be requested to give their on the alternatives: date of manufacture or date of minimum durability in relation to non-retail containers for butter and whey butter and other products.

93. The Chairman of the Milk Committee, referring to the definition of non-retail containers as given in the Working Group Report (para. 19), drew attention to the category of outer-containers for pre-packaged foods. He was of the opinion that the requirement concerning the date of manufacture as agreed to by the Milk Committee (see para. 92) should not be applied to outer-containers for pre-packaged foods, since the individual packages in these outer-containers carried a date of minimum durability.

The appearance of two different types of date marking would lead to confusion- The Milk Committee agreed that this difficulty was of a general nature and should therefore be referred back to the CCFL for further consideration-

94. The Milk Committee agreed that Annex I to the Working Group Report, which contained the proposed labelling provisions should be amended by the Secretariat according to the decisions referred to in paragraph 92 above. The amended Standards would be sent to governments for comments at Step 5 of the Milk Committee's procedure.

#### Labelling of Yoghurt

95. The delegation of France declared that his government could not accept the name "yoghurt" for heat-treated products as permitted in Standard A-II(b). The use of such a name would, in his opinion, mislead the consumers. The Milk Committee agreed not to reopen the discussion on this subject, since it had been thoroughly discussed during the development of the Standard.

#### Fat Declaration in the Standards for Evaporated Milks A-3 and Sweetened Condensed Milks A-4

96. The Chairman of the Working Group on Labelling informed the Milk Committee that his Working Group had agreed that the declaration of the fat content was necessary for all types of evaporated and sweetened condensed milks including the skimmed products as a quality criteria rather than for nutritional information (the relevant paragraphs in the Appendix to the Working Group report were amended accordingly).

#### Amendments of the General Standard for Cheese A-6

97. In continuing the discussion on labelling provisions the Chairman of the Working Group on Labelling informed the Milk Committee that his Working Group recommended the declaration of fat content in cheeses and that there was insufficient justification for exempting sodium chloride from declaration.

98. The Milk Committee agreed with these recommendations i.e. that quantitative declaration of fat content be made and sodium chloride should be mentioned in the list of ingredients. The delegation of France indicated that the EEC did not require declaration of sodium chloride.

99. At its 20th Session the Milk Committee had noted a proposal by the delegation of the United Kingdom to add the following sentence at the end of Section 3.2 "Other Additives":

"For cheese in particulate form, additives which have been endorsed by the Codex Committee on Food Additives for the improving of free flow characteristics may be used".

100. In his introduction the delegate of the United Kingdom referred to the written comments of his country given in document MDS 86/9, which advised of the need to extend their request also to refer to sliced cheese.

101. After a brief discussion the Milk Committee agreed with a proposal by the IDF that interested countries wishing to include food additive provisions should request amendments of relevant individual cheese standards and provide satisfactory technological justification for the use of the additives proposed.

102. The Milk Committee also accepted a proposal by the delegate of the United Kingdom to delete the words "of retail sale" in para 4.1.3(b) of the General Standard for Cheese as given in Document MDS 86/9 para 13 - "Comments by the IDF".

103. The Milk Committee at its 20th Session had also noted a proposal by the delegate of Denmark to amend Sections 1 and 2 of the General Standard for Cheese A-6 with a view to make clear what types of whey protein cheeses were covered by this standard.

104. The Committee considered the proposals by the IDF as given in Document MDS 86/9 para 13 which suggested that Section 1 (Scope) and Section 2b (Definition) of the Standard should be amended. The IDF proposal read:

- in par. 1 (scope): delete the last sentence "The Standard does not apply to whey cheeses";
- in para 2 (definitions):
  - under b) change the end of the sentence to read... "obtained from milk provided that the whey protein/casein ratio does not exceed that of milk, and which give an end product which has the same essential characteristics as the product defined under (a)"
  - Note.- The words "physical, chemical and organoleptic" in the original text of definition 2b were deleted because these characteristics cannot be clearly defined".

105. The Milk Committee noted that the intention was to exclude products from Standard A-6 with a whey protein/casein ratio higher than that of milk as such products would not have the same essential characteristics as cheese defined by Section 2(a) of Standard A-6.

106. In the discussion the delegates of France, the USA and the United Kingdom voiced some reservations as to the proposed text as they could not as yet decide whether the proposed "whey protein/casein ratio"<sup>1</sup> was providing a satisfactory solution. The observer of IDF pointed out that in IDF's opinion the proposed amendment of the definition did not allow for the incorporation of more whey protein into individual cheese varieties for which a Codex Standard exists, unless the paragraph dealing with method of manufacture in such a cheese standard was amended accordingly.

The Chairman drew the attention of the Committee to the first sentence of the Scope-section of Standard A-6, which states that standard A-6 applies to all products in conformity with the definition of cheese, including those varieties for which individual or group standards have been elaborated. The delegate of the United Kingdom proposed to replace the word "same" by "similar" and to re-introduce the reference to chemical, physical and organoleptic characteristics in Section 2(b). The Committee finally adopted the following text:

2(b)... "obtained from milk provided that the whey protein/casein ratio does not exceed that of milk, and] which give an end product which has similar physical, chemical and organoleptic characteristics as the product defined under (a)".

#### USE OF NAMES IN CODEX STANDARDS AS PART OF THE NAMES OF OTHER SIMILAR PRODUCTS

107. The Committee had before it Document MDS 86/4 Addenda 1 and 2 prepared by the IDF. Other document relevant to the topic was MDS 86/4 Appendix I, Section 5. The Committee agreed that it had to consider:

- (a) the use of Code names in substitutes for milk and milk products;
- (b) the use of the term "milk protein products" in the designation of processed meat and poultry products, and
- (c) the designation of ghee substitute.

#### Code names in substitutes for milk and milk products

108. The Committee noted that the Executive Committee of the Codex Alimentarius Commission had expressed the view (ALINORM 85/3, para. 139) that the use of a name laid down in a Codex Standard as part of the name of another similar product not covered by a Codex Standard, was permissible under certain specified conditions. However, the Commission had indicated that this view might not be applicable to all Codex Committees (see report of 16th Session), leaving individual Committees to ensure that the application of this decision in the labelling of products would not mislead the consumer.

109. In considering this position the Milk Committee agreed that the Executive Committee view was not appropriate to the labelling of substitutes for milk and milk products covered by the Code of Principles. It was agreed that this view could conflict with Article 4 of the Code, as interpreted by the Committee in conjunction with its "Decision N° 6". According to this interpretation a name of a Code product being substituted should not be used as part of the name of the substitute product. However, where a Code product was used as an ingredient in a food, the Code name may be used, in accordance with Article 4.2(b) of the Code, as part of a description of the true nature of the principal raw materials used.

#### Name of Processed Meat and Poultry Products containing Vegetable Protein and Milk Protein Products.

110. The Committee had a brief discussion of section 5 of the Proposed Guidelines for the Use of VP and MPP in Processed Meat and Poultry Products (see Appendix I, MDS 86/4). While recognizing that it was the task of the Codex Committee for Processed Meat and Poultry Products (CCPMPP) to agree on appropriate names for products elaborated by them, several delegations spoke in favour of section 5.2 of the Guidelines as proposed by the UK. The Committee also noted that "milk protein products" did not represent the name of a standardized milk product as explained in para.120 and that the term may not be suitable for the purposes of describing a substituted meat or poultry product. It was also noted that the term "milk protein products" was not a recognized class name included in the General Standard for the Labelling of Prepackaged Foods.

111. The Committee suggested that the CCPMPP consider carefully the question of the use of terms to describe milk protein products as part of the name of substituted meat and poultry products and for listing of ingredients. It noted that para 5.2 as proposed by the UK was in line with its views concerning the use of code names in substitutes for milk and milk products (see para 121).

#### Name for Vegetable Fat Mixtures

112. In introducing the paper MDS 86/4 Part 2, the observer of IDF outlined its Organization's objections to the use of "ghee" as part of a name to describe ghee substitutes for which the Codex Committee on Fats and Oils (CCFO) was elaborating a standard.

113. The Observer of IFMA pointed out that the name "vegetable ghee" was commonly used in a number of countries and was an informative description of the

product. This view was not shared by the delegations of India and France and the observer of IDF. The delegation of India was further of the opinion that the term "hydrogenated" should be included in the name of the product.

114. The Committee agreed with the recommendation of IDF as follows:

- (i) The product based entirely on vegetable fat should be designated: "Vegetable Fat mixture" or "Vanaspati" or some other specific name under which the product is customarily marketed and which does not contain the word "ghee".
- (ii) The product based on a mixture of animal and vegetable fats should be designated "Animal and Vegetable Fat Mixture" or "Vanaspati and Animal Fat Mixture", or some other specific name under which the product is customarily marketed and which contains a reference to animal fat but not to ghee.

The Committee also agreed the above mentioned views should be referred to the CCFO.

#### GUIDELINES FOR THE USE OF MILK PROTEINS IN NON-MILK PRODUCTS

115. The Committee had before it Document MDS 86/11 on (a) the need for the development of guidelines for the use of milk proteins in non-milk products and on the use of vegetable proteins in imitation milk and imitation milk products and (b) Document MDS 86/ HA, prepared by the IDF, on the proposed definition of "milk protein products". The Committee decided to discuss these two issues one by one.

116. As regards the need for Guidelines as mentioned under (a) above, the Committee noted that the Codex Committee on Processed Meat and Poultry Products was in the process of elaboration of Guidelines for the use of vegetable proteins (VP) and milk protein products (MPP) in processed meat and poultry products and had requested the Committee to elaborate a definition of milk protein products suitable for the use in such products (see paras 208-211, ALINORM 85/16 and MDS 86/4 App.1).

117. The Committee, following discussion, agreed that it should not concern itself with the elaboration of guidelines as outlined above. However, it declared itself willing to assist other Committees in the preparation of guidelines if needed.

118. As regards the definition of "milk protein products", the Committee noted that milk protein products would be used in processed meat and poultry products for technological purposes and as extenders in the replacement of meat ingredients with or without vegetable proteins.

119. The Committee discussed a proposed definition of "milk protein products" for the purpose of the Guidelines in question as proposed by IDF. Following detailed discussion the Committee decided that a broad definition of MPP was needed to cover all the products which would be used in the preparation of meat and poultry products. It was decided that a minimum protein content of 25% would be more appropriate than the 30% suggested by IDF in order not to exclude certain suitable MPP. Furthermore the requirement that MPP should be a dry product was not considered essential.

120. The Committee adopted the following definition for MPP:

"Milk Protein Products (MPP) for the purpose of these Guidelines are: milk products as covered by Article 2 of the Code of Principles concerning Milk and Milk Products with a protein content of at least 25% (m/m) in the fat free

dry matter, which, if designated with a name of a standardized milk product, conform to the applicable standard".

121. In adopting the definition the Committee noted that it did so without prejudice to existing requirements under the Code and, with reference to paragraph 5.2 of the "Proposed draft guidelines for the use of vegetable protein products and milk protein products in processed meat and poultry products" the Committee stressed that the adoption of the definition did not in any way imply that the term "with protein products" was a suitable designation for the purposes of label declarations in either the name of the food or list of ingredients and that the Codex Committee on Processed Meat and Poultry Products should be informed accordingly.

#### OTHER BUSINESS

122. The Committee had before it document MDS 86/13 prepared by the IDF containing a number of proposals and Information provided by governments. The various comments received from governments were introduced by the delegations concerned.

#### Redraft of the Recommended General Standard A-8(a)

123. The Delegation of New Zealand proposed that the General Standard for Named Variety Process(ed) Cheese and Spreadable Process(ed) Cheese should be revised by the addition in Section 2 of a provision to permit the use of other milk products to a maximum of 5% lactose content in the final product. This was thought to be appropriate since such a provision already existed in other standards, A-8(b) and A-8(c).

124. The Committee agreed to request governments to comment on this proposal and to reconsider it at the next session in the light of comments received.

#### Revision of Article 4 of the Code of Principles

125. The Delegation of Spain was of the opinion that Article 4 of the Code of Principles should be revised in the light of the decision number 6 so as to clarify the meaning of this article in relation to the labelling, composition and hygiene of substitute and imitation milk products. The Delegation of Spain proposed detailed texts to replace Article 4 as contained in document MDS 86/13. The Delegation of France supported the proposal of Spain. The representative of IDF was of the opinion that the Code of Principles, which had been accepted by over 70 countries, should not be changed. The Delegation of Spain pointed out that the changes proposed would improve the text of the Code of Principles.

126. In view of the fact that the proposal of Spain did not receive further support by the members of the Committee, it was decided not to proceed with the proposal of Spain. It was understood that, should any country wish to take up this matter, it would be free to do so on the basis of the written statement of Spain contained in Document MDS 86/13.

#### Statement by the Government of Thailand

127. The Delegation of Thailand gave detailed information to the Committee concerning decision number 5 of the Committee and standards A-1 to A-5 and A-7. The information provided by Thailand related to the amendments to these standards, differences between provisions of the Thai food law and the Codex Standards as regards food additives and labelling. The Delegation of Thailand also pointed to the existence of micro-biological specifications for various milk products.

128. The Committee noted with interest action taken by Thailand on the various standards for milk products and also noted with interest that Thai specifications existed for micro-biological criteria of milk products. The Committee noted that it might be appropriate to develop Codes of Practice for indigenous products.

#### Edible Rennet Casein

129. The Committee considered Document MDS 86/13-Ed.I containing a proposal by the IDF for a standard to be elaborated for Edible Rennet Casein. The Committee noted that this product was in international trade and agreed to include the elaboration of a standard in its future work programme (see Appendix XII).

#### Sweet Whey and Acid Whey Powders

130. The Committee considered Document MDS 86/13-Ed.I containing a proposal by the IDF for a standard to be elaborated for Sweet Whey and Acid Whey Powders. The Committee noted that this product was in international trade and agreed to include the elaboration of a standard in its future work programme (see Appendix XIII).

#### Cheese in Brine and Fresh Cheeses

131. The Observer of IDF introduced document MDS 86/13-Add.2 and informed the Committee that these products, cheese in brine and fresh cheese, were becoming of increasing importance in trade. IDF was of the opinion that, in addition to the existing individual standards for fresh cheeses (C 16 and C 31), group standards for cheeses in brine and for fresh cheeses, should be elaborated. IDF was prepared to produce the first drafts. The Delegation of Greece supported the proposal to elaborate a group standard for cheese in brine but expressed the view that an individual standard for Feta cheese should also be elaborated. This proposal of Greece was supported by some delegations.

132. The Committee decided to include the elaboration of group standards and an individual standard for the products mentioned above in its future work programme. The governments interested in the development of the group standard and the individual standard for Feta cheese were invited to provide information to IDF.

#### Organohalogen Compounds in Human Milk

133. The Committee agreed to refer document MDS 86/13-Add.3 prepared by WHO to the Codex Committee on Pesticide Residues.

#### Health Considerations relating to Milk and Milk Products

134. The Committee received a report (see Appendix IX) prepared by the Delegation of Belgium. In introducing the document the delegation of Belgium stressed that it was necessary to pay attention to health considerations in addition to considerations of quality of milk and milk products. He outlined existing work within the Codex system on aspects such as contaminants including environmental contaminants, pesticide residues, veterinary drug residues, aflatoxins and other mycotoxins and heavy metals. He expressed the opinion that the Committee should encourage the Interested Codex Committee to continue their work in these areas. He pointed to the system of certification of milk and milk products in relation to veterinary public health which was causing difficulties in trade. This matter could be considered by the appropriate divisions of FAO and WHO.

135. The recent accident involving a nuclear power plant had demonstrated the difficulty in coping with health related questions of this sort especially in relation to milk and milk products which were consumed by vulnerable groups of population. This was

due to a lack of agreed approach to dealing with the scientific and health related aspects of radio-active contamination of food. The requirement by a number of countries for certificates for milk and milk products contaminated by radio-activity illustrated the need for work in this area at the international level.

136. The Delegation of Belgium stressed a need for effective systems of monitoring of milk and milk products in the interest of food safety- The Committee should be informed of work both at the national and international level in this area.

137. The Committee noted with interest the remarks made by the Delegation of Belgium and agreed that milk and milk products should be given particular attention in relation to the establishment of health related requirements. It agreed that there should be an item on the agenda of its next session dealing with progress made in this

#### Monitoring for Radio-Activity

138. The Committee had before it 2 documents provided by Sweden. Dr. Slorach, a member attending the session of JECFA currently meeting in Rome, kindly agreed to inform the Committee of action taken by Sweden following the accident involving a nuclear power station. The Committee noted with satisfaction the detailed attention given by Sweden to this problem and the action taken to protect the consumers. This action involved the setting of action levels for various radionuclides, extensive monitoring of fruits, vegetables, animal products, cereals and other foods, import control and Information exchange.

139. The Delegation of India stressed the need for setting up a mechanism through which countries could be informed concerning radio-activity in food in view of the fact that trade in milk and milk products was extensive. The Chief of the Joint FAO/WHO Food Standards Programme pointed out the significance of food contamination with a number of toxic substances from the environment and indicated that Codex would continue to work on various questions in this area. The introduction or planned introduction of regulations on aflatoxins in food and feed by the EEC and by other countries and the intrinsic toxicity of aflatoxins had confirmed a previous decision to hold the Second International Conference on Aflatoxins in 1987 at which strategies for the prevention of contamination by aflatoxins and other related questions would be discussed. Eventually, the Codex mechanism would be involved in establishing internationally acceptable limits for aflatoxins. Regarding sharing of information, a mechanism existed through the Joint FAO/WHO Food Contamination Monitoring Programme and through the mechanism of communication with Codex Contact Points. As regards radionuclides in food, this represented a concern for some time to come and which would have to be addressed.

140. The Committee recommended that FAO, WHO and Codex should give consideration to dealing with the contamination of food with radionuclides.

#### Codex Standard for Minarine

141. The Delegation of France was of the opinion that it was not appropriate to refer to a product containing mainly milk fat as "minarine". This view was shared by the IDF and the Delegations of Belgium and Canada.

142. The Committee recalled its decision at the last session to entrust the Codex Committee on Fats and Oils with the inclusion of products containing milk fat in a standard on low fat spread in consultation with the Milk Committee where required. The CCFO was invited to note the remarks made by the Delegations mentioned above.

## FUTURE WORK

143. The Committee agreed to include the following items in its future work programme:

- Elaboration of a Code of Hygienic Practice for Soft Cheeses
- Elaboration of Codes of Practice for Raw Milk Preservation
  - a) LP System
  - b) Other to be developed
- Revision of Standards A-3 and A-4 (see Appendices X and XI)
- Elaboration of Group Standards for Cheese in Brine and Fresh Cheeses
- Elaboration of an Individual International Standard for Feta Cheese
- Elaboration of Standards for Edible Rennet Casein and for Food Grade Sweet Whey and Acid Whey Powders (Appendices XII and XIII)
- Elaboration of a Standard for Low Fat Dairy Spreads (at step 3) (Appendix XIV)
- Revision of Labelling Provisions for all Standards (at step 5)
- Revision of Standard A-6 General Standard for Cheese
- Elaboration of a definition of Sterilization of Milk and Milk designated "Sterilized" (Appendix V ) and "UHT"
- Elaboration of Codes of Good Manufacturing Practice for /indigenous Milk Products

## Statement by the IDF

144. The Observer of IDF noted the general trend in various Codex Committees to give greater emphasis to the needs of developing countries for guidelines and codes for food products. The Committee could assist in this respect by embarking on the development of a code of practice for the preservation of raw milk using the LP system, practical guidelines, codes of practice or manuals for the collection, production, storage, processing and distribution of milk and milk products, commodity standards for products of special interest to developing countries, technological guidelines for the treatment and manufacture of dairy products, and simple procedures for quality control purposes. The IDF would be prepared to assist developing countries through holding appropriate symposia, seminars and workshops organized as far as possible, in cooperation with FAO and held in developing countries. Such meetings would result in exchange of useful information. The IDF, in its capacity as technical advisor to the Milk Committee, would be prepared to assist in promoting the proposed reorientation of the work of the Committee.

145. The Committee expressed its appreciation of this statement by the Representative of the IDF.

## AD HOC STEERING GROUP

146. Following the discussions in para 9 of the Report the Committee agreed that there was a need to provide for an ad hoc mechanism to facilitate and expedite work decided upon by the Committee in between the Committee's sessions. The Milk Committee therefore agreed to establish an Ad Hoc Steering Group consisting of the Chairman, the two Vice-Chairmen and the Secretariat for this purpose. It also recommended that the Ad Hoc Steering Group might meet preferably on an annual basis.

The Terms of Reference of the Ad Hoc Steering Group would be as follows:

- (a) To arrange for the execution and follow-up of the work decided upon by the Milk Committee, including reviewing of comments and developing an appropriate response; and
- (b) To coordinate the development of documents and to ensure their distribution involving the Milk Committee, other Codex Committees concerned and the IDF.

DATE OF NEXT SESSION

147. The Committee was informed that the 22nd Session of the Committee of Government Experts on the Code of Principles concerning Milk and Milk Products would be held in Rome around the middle of 1990.

APPENDIX I

LIST OF PARTICIPANTS  
LISTE DES PARTICIPANTS  
LISTA DE PARTICIPANTES

Chairman:  
Président: Dr R. WEIK (USA)  
Presidenta:

ALGERIA  
ALGERIE  
ARGELIA

Abdelhalim ACHELI  
Directeur du Laboratoire Central du  
Contrôle de la Qualité et de la  
répression des Fraudes  
Ministère du Commerce  
Algerie

Mlle B. CHETTOUF  
Chef de Service Normalisation  
Laboratoire Central du Contrôle de la  
qualité et de la répression des Fraudes  
Ministère du Commerce  
Algerie

Mostefa MANSOURI  
Directeur  
Ministère Agriculture  
Alger, Algerie

AUSTRALIA  
AUSTRALIE

F. BREGLEC  
Acting Senior Executive Officer  
Food Standards Policy Section  
Export Inspection Service  
Department of Primary Industry  
BARTON, A.C.T. 2600

BANGLADESH

A.B. Manjoor RAHIM  
Second Secretary  
Bangladesh Embassy  
Via A. Bertoloni 14  
Rome 00197

BELGIUM  
BELGIQUE  
BELGICA

R. VAN HAVERE  
Inspecteur en chef-directeur  
Inspection des denrées alimentaires  
Ministère de la santé publique  
Cité administrative de l'Etat  
Quartier Vesale 433  
1010 Bruxelles

BRAZIL  
BRESIL  
BRASIL

I. KIPMAN  
Secretary  
Alternate Permanent Representative to  
FAO  
Embassy of Brazil  
Piazza Navona 14  
Rome

CANADA

A.P. GOLL  
Chief, Legislation and Labelling  
Dairy, Fruit and Vegetable Division  
Agriculture Canada  
Halldon House, 2255 Carling Avenue  
Ottawa

DENMARK  
LE DANEMARK  
DINAMARCA

O. ALSOE  
Director  
The State Quality Control for Dairy  
Products and Eggs  
Sankt Annae Plads 3  
DK 1250 Copenhagen K

J. JENSEN  
The State Quality Control  
for Dairy Products and Eggs  
Sankt Annae Plads 3  
DK 1250 Copenhagen K

Dr E. MALLING OLSEN  
Senior Veterinary Officer  
Veterinary Services  
Frederiksgade 21  
DK 1265 Copenhagen K

N.J. NYBORG  
Dairy Engineer  
Frederiks Alle 22  
DK 8000 Arhus C.

B. OLSEN  
Head of Division  
Danish Dairy Board  
Frederiks Alie 22  
8000 Arhus C.

Mrs. A. OSTERGAARD  
Chief of Section  
Ministry of Agriculture  
Christians Brygge 12 A  
DK 1219 Copenhagen K.

FINLAND  
LA FINLANDE  
FINLANDIA

U. MARTTI TUOKKO  
Vallo Finnish.Cooperative Dairies  
Association  
Kalevankatu 56  
00180 Helsinki

Prof. E. UUSI-RAUVA  
State Control Office of Dairy Products  
P.O. Box 94  
00211 Helsinki

FRANCE  
LA FRANCE  
FRANCIA

D. HULAUD  
Inspecteur Principal  
Chargé du Bureau Qualite et Sécurité  
des produits carnés, laitiers et des corps  
gras  
Direction Générale de la Concurrence,  
de la Consomation et de la  
Répression des Fraudes  
13 rue Saint-Georges  
75009 Paris

Mme D. BUREL  
Fédération Syndicale Nationale des  
Coopératives Laitieres  
34 rue Godot de Mauroy  
75009 Paris

Jean-Claude GILLIS  
Chef du Service Scientifique et  
Technique  
Fédération Nationale de l'Industrie  
Laitiere  
140 Boulevard Haussman  
75008 Paris

R. LESEÜR  
Docteur Vétérinaire  
Chef du Bureau de l'Inspection du Lait  
et des Produits Laitiers  
Direction de la Qualite, Service  
Vetérinaire d'Hygiene Alimentaire  
Ministere de l'Agriculture  
175 rue du Chevaleret  
75013 Paris XIII

J.P. MARESCHI  
Directeur Relations Scientifiques et  
Administratives  
BSN - Gervais Danone  
7 rue de Téhéran  
75381 Paris Cedex 08

FEDERAL REPUBLIC OF GERMANY  
REPUBLIQUE FEDERALE  
D'ALLEMAGNE  
LA REPUBLICA FEDERAL DE  
ALEMANA

G.A. BASTIN  
Director  
Department for Market Policies  
Federal Ministry for Food, Agriculture  
and Forestries  
5300 Bonn 1

FEDERAL REPUBLIC OF GERMANY  
REPUBLIQUË FEDERALE  
D'ALLEMAGNE  
LA REPUBLICA FEDERAL DE  
ALEMANA

Dr. Hans-Verner KAY  
Professor  
Head of Department  
Federal Dairy Research Centre  
Hermann Weigmannstr. 1  
D-2300 Kiel 1.

Karl-Heinz KUEHN  
Rechtsanwalt  
Deutsche Unilever GmbH  
Dammtorvall 15  
2 Hamburg 36

Dr. S. MALICH  
Director  
Meckenheimer Allee 137  
D-5300 Bonn 1

Dr. A. NIENHAUS  
Executive Director  
Milk Industry Association  
Bonn

G. REBSKE  
Attorney-at-Law  
Head of Legal Department  
Kraft GMBH  
Hauptstr. 185 P.B. 5520  
D 6236 Eschborn

GREECE  
LA GRECE  
GRECIA

E. ANIFANTAKIS  
Professor in Dairy Technology  
Agricultural College of Athens  
75 Iera Odos  
Votanikos  
Athens

INDIA  
L'INDE  
LA INDIA

R.P. ANEJA  
Secretary  
National Dairy Development Board  
Anand 388001

B.K. CHATTERJEE  
Deputy Commissioner (Dairy Products)  
Ministry of Agriculture  
Government of India  
New Delhi

J.C. JAISANI  
Assistant Director General  
Directorate General of Health Services  
Ministry of Health & Family Welfare  
Government of India  
Nirman Bhawan  
New Delhi

IRELAND  
IRLANDE  
IRLANDA

Dr. J. PHELAN  
Head of Dairy Technology Dept.  
National Dairy Research Centre  
Fermoy, Co. Cork

ITALY  
L'ITALIE  
ITALIA

P. AURELI  
Dirigente Ricerca  
Reparto Microbiologia Alimenti  
Istituto Superiore Sanita  
Viale Regina Elena 299  
Roma

Sra. Grazia BUCARELLI  
Funzionario Confagricoltura  
Corso Vitt. Emanuele II, 101 Roma

Sra Adriana BOCCA  
Ricercatore  
Istituto Superiore Sanità  
Viale Regina Elena 299  
Roma

C. CALVANI  
Segretario  
Comitato Nazionale Italiano per Codex  
Alimentarius  
Via Sallustiana 10  
00100 Rozne

A. CONSOLINO  
Funzionario Chimico  
Ministero Sanita  
Rome

Sra S. CARINI  
Director, Dairy Institute  
Ist. Sp. Lattiero Caseario  
Via Lombardo 11  
Lodi 20075

U. FANTUZZI  
Ministero Sanita  
Direzione Generale Servizi Veterinari  
Via A. Costa 51  
Mantova

Prof. D. MARSICO  
Ministro Consejero Agricola  
Representante Permanente ante la FAO  
Piazza Margana 19  
00186 Roma

E. MAGGI  
Ministero della Sanita  
Direzione Generale Servizi Veterinari  
Ist. Ispezione Alimenti  
Via del Taglio, Parma

Sra. Giuseppa PISANO  
Funzionario Ministero Agricoltura  
Roma

P. POSSAGNO  
Primo Dirigente  
Ministero Agricoltura  
Roma

JAPAN  
LE JAPON  
EL JAPON

Shuji OZAWA  
Senior Technical Officer  
Milk and Dairy Products Division  
Livestock Industry Bureau  
Ministry of Agriculture, Forestry and  
Fisheries  
1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo

Yoshifumi KAJI  
Section Chief  
Veterinary Sanitation Division  
Ministry of Health and Welfare  
1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo

Etuo MOCHIZUKI  
Secretary General  
Japanese National Committee of IDF  
c/o Nyugyo-Kaikan  
Kioi-cho 3-13, Chiyoda-ku, Tokyo

Tomokazu INOKE  
Adviser  
Japanese National Committee of IDF  
c/o Nyugyo-Kaikan  
Kioi-cho 3-13, Chiyoda-ku, Tokyo

Toshiro KAMEI  
Adviser  
Japanese National Committee of IDF  
c/o Nyugyo-Kaikan  
Kioi-cho 3-13, Chiyoda-ku, Tokyo

Takashi SUZUKI  
Adviser  
Japanese National Committee of IDF  
c/o Nyugyo-Kaikan  
Kioi-cho 3-13, Chiyoda-ku, Tokyo

Michio TAKAHASHI  
Adviser  
Japanese National Committee of IDF  
c/o Nyugyo-Kaikan  
Kioi-cho 3-13, Chiyoda-ku, Tokyo

Hisayoshi TAKEUCHI  
Adviser  
Japanese National Committee of IDF  
c/o Nyugyo-Kaikan  
Kioi-cho 3-13, Chiyoda-ku, Tokyo

NETHERLANDS  
PAYS-BAS  
PAISES BAJOS

F.G.P. DIERMANSE  
Commodity Board for Dairy Products  
P.O. Box 5831  
2200 HV Rijswyk

R. KLOMP  
Animal Husbandry and Dairying Division  
Ministry of Agriculture and Fisheries  
P.O. Box 20401  
2500 EK, The Hague

P.J. MATHOT  
Inspector of Public Health  
Hoofdinspectie Levensmiddelen  
Dokter Reijersstraat 10  
2265 BA Leidschendam

A.E. PENNING  
Commission for the Dutch Food and  
Agricultural Industry  
Royal Dutch Dairy Federation  
P.O. Box 5831  
2280 HU Rÿswÿk

J.M. VAN DER BAS  
Director  
Netherlands Controlling Authority for  
Milk and Milk Products  
Centraal Orgaan Zuivelcontrole  
P.O. Box 250  
3830 AG Leusden

NEW ZEALAND  
NOUVELLE ZELANDE  
NUEVA ZELANDIA

P. FAWCET  
Chief Advisory Officer  
Ministry of Agriculture and Fisheries  
Private Bag  
Wellington

B.L.S. SUTHERLAND  
Quality Assurance Controller  
New Zealand Dairy Board  
P.O. Box 417  
Wellington

NORWAY  
NORVEGE  
NORVEGA

A. OTERHOLM  
Norwegian Dairies Association  
Box 9051  
Vaterland  
Oslo 1

John A. RACE  
Food Inspection Board/  
Codex Alimentarius  
P.O. Box 8139, Dep.  
0033 Oslo 1

POLAND  
POLOGNE  
POLONIA

Dr. Halina SADOWSKA  
Chief of Food Hygiene and Nutrition  
Division  
Ministry of Health and Social Welfare  
15 Miodowa Str.  
00-923 Warsaw

Ing. F. DORCZAK  
Chief of Poultry and Dairy Products  
Division  
Ministry of Foreign Trade  
Quality Inspection Office  
32/34 Zurawia Str.  
00-950 Warsaw

Dr. J. RYBICKI  
Chief of Dairy Products Division  
Foreign Trade Enterprise "POLCOOP"  
30 Kopernika Str.  
00-950 Warsaw

SPAIN  
ESPAGNE  
ESPANA

Mr. DEL RIO ELORTEGUI  
Jefe Normalizacion  
Ministerio de Agricultura  
Paseo de Infanta Isabel 1  
Madrid

I. DIAZ YUBERO  
Representante Permanente de España  
ante la FAO  
Monte Brianzo 56  
Rome

O. HERNANDEZ PRADO  
Ministerio de Sanidad y Consumo  
Paseo del Prado 16-18  
Madrid

SWEDEN  
SUEDE  
SUECIA

Mrs. B. BLOMBERG  
Head of Internacional Secretariat  
Swedish National Food Administration  
Uppsala

Dr Lennart BJOERCK  
Swedish University of Agriculture,  
Box 7024  
S-75007 Uppsala

Prof. O. CLAESSION  
Swedish University of Agricultural  
Sciences,  
Box 7024  
S-75007 Uppsala

T. FRENNBORN  
Managing Director  
Swedish Government Control Board of  
Dairy Products and Eggs  
Box 477  
20124 Malmo

Karl Erik THURELL  
Dairies Cheese Development Station  
Falkenberg

SWITZERLAND  
SUISSE  
SUIZA

G. BURKHALTER  
Président de la Commission suisse du  
lait  
Monbijoustrasse 45  
CH-3001, Bern

P. GILLIERON  
Fürsprecher  
Käseunion AG  
Monbijoustrasse 45  
CH-3011, Berr

Dr Y. SIEGWART  
Chef du contrôle des denrées  
alimentaires  
Office federal de la santé publique  
OFSP  
Haslerstrasse 16  
CH - 3008 Berne

P. ROSSIER  
Head of Codex Alimentarius Section  
Haslerstrasse 16  
CH - 3008 Berne

Mrs Irina DU BOIS  
NESTEC Ltd.,  
55 Avenue Nestlé  
CH - 1800 Vevey

Dr P. PITTET  
NESTEC S.A.  
Av. Nestlé 55  
CH - 1800 Vevey

THAILAND  
THAILANDE  
TAILANDIA

Auychai SALYACHIVIN  
Secretary General  
National FAO Committee  
Director of Foreign Agrie, Relations  
Ministry of Agriculture and Cooperatives  
Rajadamnern Avenue  
Bangkok 10200

Miss Sukontha NAEKAMANURAK  
Scientist  
Department of Science Service  
Rama VII Rd  
Bangkok 10400

Miss Angsana SIHAPITAK  
The Royal Thai Embassy  
Third Secretary  
Via Nomentana 132, Rome

UNITED KINGDOM  
ROYAUME-UNI  
REINO UNIDO

R.C. GURD  
Principal, Standards Division  
Ministry, of Agriculture, Fisheries and  
Food  
Great Westminster House  
Horseferry Road  
London SW1P 2AE

Ian M.V. ADAMS  
Principal Scientific Officer  
Food Science Division  
Ministry of Agriculture, Fisheries and  
Food  
Great Westminster House  
Horseferry Road  
London SW1P 2AE

R. ADICKER  
Research and Development Division  
Dairy Crest Foods  
Portsmouth Road  
Surbiton, Surrey

F. HARDING  
Technical Director  
Milk Marketing Board  
Thames Ditton  
Surrey

D. WILTON  
United Kingdom Dairy Association  
St. Ivel Technical Centre  
Abbey House, Church Street  
Bradford on Avon, Wilts BA15 1 DH

UNITED STATES OF AMERICA  
ETATS-UNIS D'AMERIQUE  
ESTADOS UNIDOS DE AMERICA

Dr R. WEIK  
Assistant to Director  
Center for Food Safety and Applied  
Nutrition  
United States Food and Drug  
Administration  
200 C Street SW  
Washington, DC 20204

George W. FRY  
Chief  
Dairy Grading and Standardization  
Branch  
Dairy Division AMS  
US Department of Agriculture  
Washington, DC 20250

Eugene T. MCGARRAHAN  
Special Assistant for Dairy Sciences  
(HFF-206)  
Food and Drug Administration  
200 C Street, SW  
Washington, DC 20204

C.J. COSGROVE  
Professor Food Science and Nutrition  
Dept. of Food Science and Nutrition  
212 Quinn Hall  
Univ. of Rhode Island  
Kingston R.I.

J.H. NELSON  
Vice President of Quality Assurance  
Regulatory Compliance  
Kraft Inc.,  
Kraft Court  
Glenview  
Illinois 60025

Sava. STEFANOVIC  
Vice President  
Research and Development  
Packaging Systems Division  
Ex-Cell-0 Corporation  
Walled Lake  
Michigan 48088

Vincent L. ZEHREN  
Chairman  
Research Committee  
National Cheese Institute  
L.D. Schreiber Cheese Company, Inc.  
425 Pine Street  
Green Bay, Wisconsin 54305

INTERNATIONAL ORGANIZATIONS  
ORGANISATIONS INTERNATIONALES  
ORGANIZACIONES  
INTERNACIONALES

ASSOCIATION OF OFFICIAL  
ANALYTICAL CHEMISTS (AOAC)

Margreet TUINSTRA-LAUWAARS  
AOAC European Representative  
Langhoven 12  
6721 SR Bennekom  
The Netherlands

EUROPEAN ECONOMIC COMMUNITY

Gilbert VOS  
Administrateur Principal  
DG III, Commission des Communautés  
européennes  
Rue de la Loi 200  
B-1049 Bruxelles  
Belgium

V. SADINI  
Administrateur Principal a la  
Direction générale de l'Agriculture  
Commission des Communautés  
européennes  
Rue de la Loi 200 B  
B-1049 Bruxelles  
Belgium

EUROPEAN ASSOCIATION FOR  
ANIMAL PRODUCTION (EAAP)

K. KALLAY  
Secretary General  
European Association for Animal  
Production  
Corso Trieste 67, Rome

INTERNATIONAL DAIRY  
FEDERATION (IDF)

P.F.J. STAAL  
Secretary General  
International Dairy Federation  
Square Vergote Al  
1040 Brussels  
Belgium

E. HOPKIN  
Deputy Secretary  
General of IDF  
Square Vergote 41  
1040 Brussels  
Belgium

INTERNATIONAL FEDERATION OF  
MARGARINE ASSOCIATIONS (IFMA)

Karl-Heinz KUEHN  
International Federation of Margarine  
Associations  
Rue de la Loi 74A  
Boite 3  
B 1040 Brussels  
Belgium

INTERNATIONAL ORGANIZATION  
FOR STANDARDIZATION

H.W. SCHIPPER  
Nederlands Normalisatie-Instituut  
P.O. Box 5059  
2600 GB Delft  
Netherlands

S. BOELSMA  
State Institute for Quality Control of  
Agricultural Products  
P.O. Box 230  
6700 AE Wageningen  
Netherlands

MARINALG INTERNATIONAL

W.J. SANDER  
President Marinalg  
85 Boulevard Haussmann  
75008 Paris  
France

Jean-Jacques PIOT  
Adviser  
Marinalg International  
85 Boulevard Kaussmann  
Paris 75008  
France

JOINT SECRETARIES  
CO-SECRETAIRES  
COSECRETARIOS

Dr. L.G. LADOMERY  
Food Standards Officer  
FAO/WHO Food Standards Programme  
Group  
FAO, 00100 Rome

Dr. F. WINKELMANN  
Senior Officer  
Meat and Dairy Service  
Animal Production and Health Division  
FAO, 00100 Rome

FAO PERSONNEL  
PERSONNEL DE LA FAO  
PERSONAL DE LA FAO

Dr. L. BARRON DEL CASTILLO  
Chief  
Meat and Dairy Service  
Animal Production and Health Division  
FAO, 00100 Rome

JOINT FAO/WHO FOOD STANDARDS  
PROGRAMME PERSONNEL  
PERSONNEL DU PROGRAMME  
MIXTE FAO/OMS SUR LES NORMES  
ALIMENTAIRES  
PERSONAL DEL PROGRAMA  
CONJUNTO FAO/OMS SOBRE  
NORMAS ALIMENTARIAS

Dr. R.K. MALIK  
Chief  
Joint FAO/WHO Food Standards  
Programme  
FAO, 00100 Rome

Mr. H.J. MCNALLY  
Senior Officer  
FAO/WHO Food Standards Programme  
Group  
FAO, 00100 Rome

Mrs. B. DIX  
Food Standards Officer  
FAO/WHO Food Standards Programme  
Group  
FAO, 00100 Rome

J.M. HUTCHINSON  
Food Standards Officer  
FAO/WHO Food Standards Programme  
Group  
FAO, 00100 Rome

Dr. N. RAO MATURU  
Food Standards Officer  
FAO/WHO Food Standards Programme  
Group  
FAO, 00100 Rome

APPENDIX II

Joint FAO/WHO Committee of Government Experts on the Code of Principles  
concerning Milk and Milk Products

List of Standards for Methods of Sampling and Analysis adopted or under consideration by the above-mentioned Committee

The standard Listed hereunder, with the exception of Standard B-9 and the revised standards B-1, B-6, B-12 and B-15 are contained in the 7th edition of the Code.

|       |  | IDF<br>Standard | Corresponding<br>ISO Standard | AOAC Method<br>(14th Ed) |
|-------|--|-----------------|-------------------------------|--------------------------|
| B-1   | (1966) Milk & Milk Products - Sampling Methods   | 50 : 1969       | R707: 1968                    | 16.001-16.018            |
| B-1   | revised(at Step (h) see Report of the Committee's 20th Session, Appendix III and paras 68 to 74) | 50A : 1980      | 707. 1985                     | 16.001-16.018            |
| B-2   | (1967) Dried milk - Fat Content  | 9A : 1969*      | 1736 : 1981                   | 16.219-16.220            |
| B-3   | (1967) Cheese & Processed Cheese products - Fat Content  | 5A : 1969       | 1735 : 1975                   | 16.284                   |
| B-4   | (1967) Fat from Butter - Acid Value  | 6A : 1969       | 1740 : 1980                   | 16.237-16.239            |
| B-5   | (1967) Fat from Butter - Refractive Index  | 7A : 1969       | 1739 : 1975                   | 16.240                   |
| B-6   | (1967) Milk - Fat Content  | 1A : 1969       | R121 1970                     | -                        |
| B-6   | revised(at Step (h) see Report of the Committee's 20th Session, Appendix III and paras 68 to 74) | 1B : 1983       | 1211 1984                     | 16.021                   |
| B-7   | (1967) Evaporated Milks & Sweetened Condense Milks Fat Content                                   | 13A : 1969*     | 1737 ; 1981                   | 16.192                   |
| B-8   | (1967) Butter - Salt (Sodium chloride) Content   | 12A : 1969      | 1738 : 1980                   | 16.235                   |
| B-9   | (1978) Butter - Water, Solids-not-fat and Fat Content in the same test portion                   | 80 : 1977       | 3727 : 1977                   | 16.232                   |
| B-10  | (1973) Whey Cheese - Fat Content   | 59 : 1970       | 1854 : 1972**                 | 16.285                   |
| B-11  | (1970) Whey Cheese - Dry Matter  | 58 : 1970       | 2920 : 1974                   | -                        |
| B-12  | (1972) Cheese & Processed Cheese Products - Phosphorus   | 33A : 1971      | 2962 : 1974                   | -                        |
| B-12  | revised(See Report of the Committee's 20th Session, Appendix III and paras 68 to 74)             | 33B : 1982      | 2962 : 1984                   | -                        |
| B--13 | (1972) Cheese & Processed Cheese Products - Citric Acid  | 34B : 1971      | 2963 : 1974                   | 16292-16.296             |
| B-14  | (1972) Sweetened Condensed Milks - Sucrose (Polarimetric Method)                                 | 35 : 1966       | 291 !: 1976                   | 16.208-16.209            |

|      |  |            |             |        |
|------|--|------------|-------------|--------|
| B-15 | (1973) Cream - Fat Content                               | 16A : 1971 | 2450 : 1972 | 16.176 |
| B-15 | revised(to be approved by the<br>Committee; it step (g)) | 16B : 1984 | DIS<br>2450 | 16.176 |

\* New editions not yet submitted to Milk Committee  
9B : 1984 ISO/DISJ736  
13B : 1984

\*\* Under revision

The standards listed hereunder and standard B-9 and draft standard B-21 are contained in the Report of the Committee's 19th Session. App. IX, X, XI, XII (1978)

|              |  | IDF<br>Standard | Corresponding<br>ISO Standard | AOAC Method<br>(14th Ed.) |
|--------------|--|-----------------|-------------------------------|---------------------------|
| D-16         | (1978) Milk Fat - Vegetable Fat (Phytosteryl Method)   | 32 : 1965       | 3595 : 1976**                 | 28.096                    |
| B-17         | (1978) Milk Fat - Vegetable Fat (Gas-Liquid Chromatography of Sterols)   | 54 : 1979       | 3594 : 1976                   | 28.100                    |
| B-18         | (1978) CHEESE: CHLORIDE CONTENT  | 88 : 1979       | 5943 : 1978                   | 16.268-16.271             |
| B-19         | (1978) Cheese Nitrate & Nitrate Contents   |                 | 4099 : 1978                   |                           |
| B-19         | revised  | 84A : 1984      | 4099 : 1984                   | -                         |
| D-20         | (1978) Anhydrous Milk fat - Peroxide Value   | 74 : 1974       | 3976 : 1977                   | 28.025***                 |
| Draft I 3-21 | (1982) Milk & Milk Products - Attribute Sampling Schemes fat Step (h) see report of the Committee's 20th Session, App. III and paras 68 to 74) | 113 : 1982      | DP 5583                       | -                         |
| B-22         | (1982) Caseins and Caseinates - Water  | 78B : 1980      | 5550 : 1978                   | -                         |
| B-23         | (1982) Rennet Casein and Caseinates - Ash  | 90 : 1979       | 5545 : 1978                   | -                         |
| B-24         | (1982) Caseins - Fixed Ash   | 89 : 1979       | 5544 : 1978                   | -                         |
| B-25         | (1982) Caseins and Caseinates - Protein  | 92 : 1979       | 5549 : 1978                   |                           |
| B-26         | (1982) Caseins and Caseinates - Free Acidity   | 91 : 1979       | 5547 : 1978                   | -                         |
| B-27         | (1982) Milk & Milk Products - Lactose Content in the presence of other reducing substances 79  | 1977**          | DIS 5765                      | -                         |
| B-28         | (1982) Dried Milk - Titratable Acidity   | 86 : 1981       | 6091 : 1970                   | -                         |

The draft standards listed hereunder are contained in the Report of the Committees 20th Session, App. VI (1982)  
Draft Standards at Step

|      |   | IDF<br>Standard | Corresponding<br>ISO Standard | AOAC Method<br>(14th Ed.)    |
|------|---|-----------------|-------------------------------|------------------------------|
| B-29 | (1982) Milk, Cream & Evaporated Milk - Total Solids | -21A : 1982     | D1S 6731                      | 16.032,<br>16.171,<br>16.189 |
| B-30 | (1982) Sweetened Condensed Milk - Total Solids      | 15A : 1982      | DIS 6734                      | 16.203***                    |
| B-31 | (1982) Cheese & Processed Cheese - Total Solids     | 4A : 1982       | 5534 : 1985                   | all methods differ           |

The draft standards listed hereunder were not printed in the Committee's Reports but were referred to in the Report of the Committee's 20th Session (1982) APP- III and paras 68 to 74

Draft Standards at Step (d)

|                           |        |   |            |             |               |
|---------------------------|--------|---|------------|-------------|---------------|
| B-32                      | (1982) | Skimmed Milk, Whey & Buttermilk Fat Content         | 22A : 1983 | 7208 : 1984 | -             |
| B-33                      | (1982) | Milk - Freezing Point (Thermistor Cryoscope).       | 108 : 1982 | DÍS 5764    | 16.096-16.100 |
| B-34                      | (1982) | Caseins & Caseinates Scorched Particles -(Sediment) | 107 : 1982 | 5739 : 1983 |               |
| B-35                      | (1982) | Milk & Milk Products - Iron Content                 | 103 : 1982 | DIS 6732    | -             |
| D-36                      | (1982) | Milk & Milk Products - Copper Content               | 76A : 1982 | 5738 : 1980 | 25.066-25.071 |
| Draft Standard at step(h) |        |   |            |             |               |
| B 37                      | (1982) | Caseins & Caseinates - pH                           | 115 : 1982 | 5546 : 1979 | -             |
| B-38                      | (1982) | Caseins & Caseinates - Lactose Content              | 106 : 1982 | 5548 : 1980 | -             |

\*\*\* Not identical

### APPENDIX III

#### Annatto levels expressed as mg of norbixin/kg cheese in the USA

---

1. 1 kg natural cheese contains 8.1 - 8.2 mg norbixin when used at the rate of 1 oz./1000 lbs. milk; assuming 10 lbs of cheese yield/100 lbs of milk.
2. Using 1<sup>1/2</sup> oz. annatto extract/1000 lbs of milk the mg of norbixin/kg of natural cheese is in the range of 11.8 - 12.2
3. Process cheeses - 2 extract products are available. The range of norbixin in process cheese starting with all white cheese in the blend is:  
Colour A-46 - 2.16 to 4.3 mg norbixin / kilo cheese  
Colour A-400 - 3.79 to 18-95 mg norbixin/kilo cheese  
Colour A-400 is mostly used by the industry.
4. The manufacturers recommendation is 1-1<sup>1/2</sup> oz of annatto extract/ 1000 lbs milk in the making of natural cheese.
5. Marshalls and DFL, the other main suppliers of annatto extract has essentially the same norbixin content as Harsens.
6. The level of norbixin content is very close to the UK level of 0.53%.
7. 10 mg norbixin/kg cheese would be restrictive in US markets. 20-25 mg/kg more acceptable.
8. Market some years ago required higher levels of colour. 0.14% were used. At present 0.125% and at larger volumes 1000 lbs of milk.
9. Document - questionnaire 1486/D from IDF.  
Was just received in USNAC Office  
Will be immediately circulated to colour manufacturers.  
John Nelson and V.L. Zehren. Published deadline for response was 20 July 1986. Should be on time.
10. Annatto was GRAS approved. There was no time to research date of approval and contents of approval document, but estimate approval was prior to 1970.
11. There is disagreement as to the level of 0.065 mg/kg for annatto as bixin/norbixin as the safe level of ingestion (ADI) as established by the Joint Expert Committee on Food Additives (JECFA).
12. The above 11 points were based on conversations with Dr. Robert Sellars, Chr. Hansen Laboratories, Milwaukee, Wisconsin-

## APPENDIX IV

### CONSIDERATIONS RELATIVE TO THE USE OF KARAYA AND XANTHAN GUM IN CERTAIN CHEESES AND CHEESE PRODUCTS

The technological justification for the use of stabilizers in cheese or cheese products such as creamed cottage cheese, processed cheese preparations and creamed cheese is that some means are necessary to (i) bind the components of these foods which consist of milkfat, milk solids not fat and moisture, and (ii) to contribute to the development of the physical characteristics of the particular cheese or cheese product. As a special consideration producers of "creamed cottage cheese" need to vary the amount of stabilizer depending on the composition of the creaming mixture, as the standard for Creamed Cottage Cheese (C16) now provides. The most significant function of the stabilizer in the creaming mixture is to accomplish a necessary and desirable dispersion of the creaming mixture in admixture with the cottage cheese curd.

In the 17th Session (1984) CCFA report (ALINORM 85/12), page 12, paragraphs 91 and 92, and page 57 of Appendix III, it appears that the following two points are in question:

1. That FAO/WHO Standard C-16 "Cottage Cheese and Creamed Cottage Cheese" provides in 3.3.2 for the use of stabilizers (singly or in combination) in an amount not to exceed 0.5% by weight of the creaming mixture (5 g/kg), and if karaya gum were used to the maximum amount stated by the standard that amount would exceed the ADI for karaya gum.
2. That FAO/WHO Standard A-8 (c) "Processed Cheese Preparation (Process Cheese Food and Process Cheese Spread)" provides in 3.6 for the use of stabilizers (singly or in combination) in an amount not to exceed 0.8% of the weight of the food (8 g/kg), and if karaya gum or xanthan gum were used to the maximum amount stated by the standard that amount would exceed the ADI for these gums. Also, the commodity committee should reconsider the established maximum class use Level for stabilizers.

According to CAC/Vol. XIV, Ed- 1 (1983) a temporary ADI for karaya gum had been set at 0-20 mg/kg of body weight and an ADI for xanthan gum had been set 0-10 mg/kg of body weight. Also see FAO Food and Nutrition Paper 30 (Published 1984), pages 112 and 178, that shows an ADI for karaya and none for xanthan gum.

#### FAO/WHO Standard C-16

The following table conveys the variations in the weight of the creaming mixture (curd dressing) that must be added to cottage cheese curd in order to meet the minimum 4.0% fat requirements stated in standard C-16, item 4.7(b). It is quite evident that based on the fat content of the creaming mixture, as well as other factors, the weight of the creaming mixture per 100 g of curd will vary, thus the amount of stabilizer (based on a maximum of 0.5% of the creaming mixture) per 100 g of the creamed cottage cheese will vary (from. 0022 g/g to.0011 g/g).

| grams curd |   | grams creaming mixture | grams creamed cottage cheese (4.2% fat) |
|------------|---|------------------------|---|
| 100        | + | 75.2 (10% fat)=        | 175.2 (.0022 g stab./g = 220 mg/100 g)  |
| 100        | + | 55.7 (12% fat)=        | 155.7                                   |
| 100        | + | 44.2 (14% fat)=        | 144.2                                   |
| 100        | + | 36.7 (16% fat)=        | 136.7                                   |
| 100        | + | 31.3 (18% fat)=        | 131.3                                   |
| 100        | + | 27.3 (20% fat)=        | 127.3 (.0011 g stab./g = 110 mg/100 g)  |

If karaya gum was the sole stabilizer used, a 20 kg child consuming 100 g of creamed cottage cheese could ingest from 220 mg to 110 mg of karaya gum. Since the temporary ADI was set at 0-20 mg/kg the maximum amount of karaya gum is 400 mg. Therefore, the ADI even at maximum use as provided for by standard C-16 is not exceeded.

#### FAO/WHO Standard A-8(c)

It is not clear from the CCFA report (ALINORM 85/12) in paragraph 92 or Appendix III as to the amount of process cheese preparation that was considered to be a serving. In the US, 1 oz or 28 grams is the recognized amount for a serving of process or natural cheese, a serving of cottage or ricotta cheese is 113 grams- Since both karaya and xanthan gum are now provided for in this standard specific calculations based on serving size and ADI must be made to determine the maximum safe use Levels for these gums in process cheese preparations. Here, again if the sole use of one stabilizer, at the maximum class level provided in the standard, would exceed an established safe level (ADI) then the usage of level of the stabilizer must be reduced. In most instances, a blend of various kinds of stabilizers are used-

It should be pointed out that the entities that developed the FAO/WHO Codex Milk Committee commodity standards reached, either by consensus or majority vote, a decision on (i) the classes of functional food additives that were needed in a commodity for technological reasons, (ii) the amount of each class of functional food additive necessary to perform the intended effect in a commodity and (iii) the names of the specific food additives to be included in each class of functional food additive provided for by the commodity standard- The entities involved in this effort, as well as those entities who have adopted the standards, have been aware that at some point a determination would be made on the amount of each specific food additive that can be safely used in a commodity.

Evaluation of food additives by JECFA, establishment of ADIs, and endorsement by the CCFA is time consuming as evidenced by the amount of work yet to be done. As the safety Levels for the use of specific food additives are determined, the information should be made known to all interested parties and added to the appropriate commodity standard. At some point, the maximum use level for each class of food additive provided for in a commodity standard should then be re-evaluated relative to safety versus technological necessity. It is also necessary for JECFA and CCFA to take into consideration what the daily intake of a specific cheese is and what portion of the ADI for a specific food additive is contributed by the daily or intermittent use of that specific cheese or cheese product.

## APPENDIX V

### DEFINITION OF HEAT TREATMENT OF MILK AND MILK PRODUCTS

#### Introductory Note

The following definition of "sterilization" and of designations for "sterilized" and "UHT" milk were prepared by the International Dairy Federation for the Committee. In introducing the proposals, the IDF observer explained that two important principles were embodied:

- i) both sterilized and UHT milks should satisfy the same minimum microbiological end product criteria and therefore both should conform to the definition of "sterilization".

Accordingly, the characteristics specified in 2a) and 3a) are identical, as are those in 2c) and 3c).

- ii) Sterilized and UHT milks should be distinguished on the basis of organoleptic end product characteristics of significance to consumers.

Accordingly, the chemical criteria to be satisfied by sterilized milk in 2b) is a minimum effect and that for UHT milk in 3b) is a maximum effect.

The various parameters specified below (the processing parameter X and the chemical effect Y) together with the numerical values (m and n respectively) have yet to be determined, as too have the microbiological criteria (x y z) and their values (e f g). Work is now proceeding within IDF on specifying these parameters and values; this work will be reported to the Milk Committee in due course.

#### DEFINITIONS OF STERILIZATION OF MILK AND OF MILKS DESIGNATED "STERILIZED" AND "UHT"

##### 1. Sterilization of milk

Sterilization is a process applied to milk with the object of destroying all micro-organisms, or at least inhibiting the growth of any residual spoilage micro-organisms or their spores, by heat treatment at a temperature exceeding 100 C.

##### 2. Milk designated "STERILIZED" milk

Milk marketed under the designation "STERILIZED" is whole milk, partly skimmed milk, or skimmed milk, which has been subjected to the process of sterilization, as defined in 1, completed either in a hermetically sealed container, or in continuous flow followed by aseptic packaging in a hermetically sealed container- The process is such that

- a) the resultant bacteriological effect is equivalent to at least that of  $X=m$  sufficient to ensure public health safety in respect of anaerobic pathogenic micro-organisms and freedom from microbiological spoilage during a specified extended shelf Life under non-refrigerated conditions.
- b) the resultant chemical effect is at least the equivalent of  $y = n$ ,
- c) the microbiological criteria xyz specified in International Standard IDF efg are fulfilled,

- d) the criteria related to tests for chemical stability, and severity of heat treatment as related to organoleptic quality, specified for "STERILIZED" milk in International Standard IDF efg are fulfilled.
3. Milk designated "UHT" milk
- Milk marketed under the designation "UHT" is whole milk, partly skimmed milk, or skimmed milk, which has been subjected to the process of sterilization, as defined in 1, completed either in a hermetically sealed container, or in continuous flow followed by aseptic packaging in a hermetically sealed container. The process is such that
- a) the resultant bacteriological effect is equivalent to at least that of  $X = m$  sufficient to ensure public health safety in respect of anaerobic pathogenic micro-organisms and freedom from microbiological spoilage during a specified extended shelf life under non-refrigerated conditions,
  - b) The resultant chemical effect is Less than the equivalent of  $Y = n$ ,
  - c) the microbiological criteria xyz specified in International Standard IDF efg are fulfilled,
  - d) the criteria related to tests for chemical stability, and the severity of heat treatment as related to organoleptic quality, specified for "UHT" milk in International Standard IDF efg are fulfilled.

#### GENERAL NOTE

1. For the purpose of this document "hermetically sealed container" means a container that is designed and intended to be secure against the entry of micro-organisms.
2. The microbiological criteria xyz apply to both products and are the minima required for public health safety and to ensure the required shelf life.
3. The processing parameters X and Y represent respectively the integrated bacteriological, and chemical effects attributable to the varying combinations of temperature and time throughout the heating and cooling process.
4. The derivation of the processing parameters X and Y and the values m and n assigned to them is to be undertaken.
5. The purpose of the processing parameter Y and the end- product tests related to the severity of heat treatment is to distinguish between the two types of milk on the basis that the heat treatment of "UHT" milk results in Less chemical change than the heat treatment of "STERILIZED" milk, irrespective of processing methodology.
6. The chemical stability of "UHT" milk is expected to be lower than that of "STERILIZED" milk because of residual enzymes as a result of the different heat treatment.
7. The International Standard IDF efg is to be prepared when appropriate end product tests have been developed.

## APPENDIX VI

### IDF/ISO/AOAC \*) Cooperation in the field of analysis and sampling

1. Representatives of IDF, ISO and AOAC met in Rome on 30 May 1986 to discuss and evaluate progress on collaboration between the three organizations, with special reference to methods of analysis required for the Code of Principles concerning Milk and milk products.

Present :

|                           |  |
|---------------------------|--|
| Mr. S. Boelsma (Chairman) | ISO  |
| Dr. H - W. Schipper       | ISO  |
| Mr. R. Grappin            | IDF  |
| Mr. E - Hopkin            | IDF  |
| Mrs. M. Juárez            | IDF  |
| Mrs. M. Tuinstra-Lauwaars | AOAC   |
| Dr- R.W. Weik **)         | Chairman of the Committee of<br>Government Experts           |
| Mr. G.A. Bastin **)       | 1st Vice-chairman of the Committee<br>of Government Experts  |
| Mr. A. Oterholm **)       | 2nd Vice-chairman of the Committee<br>of Government Expert s |
| Dr. F. Winkelmann **)     | FAO  |
| Dr. L. Ladomery **)       | FAO  |

\*) International Dairy Federation/International Organization for Standardization/Association of Official Analytical Chemists

\*\*) Present for part of the Session only

2. Joint IDF/ISO/AOAC methods submitted to the 21st Session of the Committee of Government Experts

Methods submitted for action at step d

- 2.1 Milk and milk products - Sampling - Inspection by variables
- 2.2 Milk and milk products, special cases - Fat content
- 2.3 Caseins and caseinates - Fat content
- 2.4 Caseins and caseinates - Nitrate and nitrite contents
- 2.5 Dried milk - Nitrate and nitrite contents
- 2.6 Dried whey - Nitrate and nitrite contents
- 2.7 Whey cheese - Nitrate and nitrite contents
- 2.8 Dried milk - Sodium and potassium contents
- 2.9 Processed cheese products - Calculation of added phosphate
- 2.10 Cheese and cheese rind - Natamycin content
- 2.11 Milk - Nitrogen (protein) content
- 2.12 Canned evaporated milk - Lead content
- 2.13 Milk and milk products - Organochlorine pesticide residues content
- 2.14 Milk and milk products - Organophosphorus pesticide residues content
- 2.15 Milk and milk products - Polychlorinated biphenyls content
- 2.16 Milk and dried milk - Aflatoxin M<sub>1</sub> content

Note

Methods for determination of contaminants: IDF/ISO/AOAC request guidance from the Committee on the desirability of publishing as Code standards the methods for pesticide residues, PCB and aflatoxins (2.13, 2.14, 2.15 and 2.16 above).

Revised methods submitted at step f

- 2.17 Dried milk, dried whey, dried buttermilk, dried butter serum - Fat content (B 2)
- 2.18 Evaporated and sweetened condensed milk - Fat content (B 7)
- 2.19 Cream - Fat content (B 15)

Methods submitted for action at step g

- 2.20 Milk and milk products - Sampling - Inspection by attributes (B 21)
- 2.21 Milk, cream and evaporated milk - Total solids content (B 29)
- 2.22 Sweetened condensed milk - Total solids content (B 30)
- 2.23 Cheese and processed cheese - Total solids content (B 31)
- 2.24 Skimmed milk, whey, buttermilk - Fat content (B 32)
- 2.25 Milk - Freezing point determination (thermistor cryoscope) (B 33)
- 2.26 Milk and milk products - Iron content (B 35)
- 2.27 Milk and milk products - Copper content (B 36)

Note

The method for determination of scorched particles content in caseins and caseinates (B 34) is under critical review and will be resubmitted.

Methods submitted for action at step h

- 2.28 Milk and milk products - Methods of sampling (B 1)
- 2.29 Milk - Fat content (B 6)
- 2.30 Cheese and processed cheese - Phosphorus content (B 12)
- 2.31 Caseins and caseinates - pH (B 37)

## 2.32 Caseins and caseinates - Lactose content (B 38)

### Note

Items 2.31 and 2.32 were first submitted to the 20th Session but were not included in the report. They are thus resubmitted for inclusion in the 8th edition of the Code of Principles.

### 3. Methods required under the Code but not yet available

The Milk Committee is informed that the methods listed below are those for which provisions are made in the compositional standards but for which no appropriate methodology is available. Work on these methods by the three organizations is either in hand or will commence in the near future. For food additives, reference is made to section 4.

- |      |  |   |
|------|--|---|
| 3.1  | Anhydrous milkfat etc. (A2)                    | - Water content (Karl Fischer)<br>- Fat content (indirect method)<br>- Dissolved oxygen content |
| 3.2  | Low-fat dairy spreads (MDS 8 6/5 A)            | - Fat content<br>- Lead content<br>- Arsenic content  |
| 3.3  | Dried milk (A5) and cream powder (A10)         | - Water content   |
| 3.4  | Sweet and acid whey powders (MDS 86/13 Add. 1) | - Lead content  |
| 3.5  | Processed cheese preparations etc. (A8c)       | - Dry matter content<br>Dry matter content derived from cheese                                  |
| 3.6  | Creams (A9)                                    | - Sugar content *)<br>- Caseinates content **)  |
| 3.7  | Yoghurt and sweetened yoghurt (A 11a)          | - Fat content<br>- Milk s.n.f. content<br>- Sugars *)   |
| 3.8  | Flavoured yoghurt (A 11b)                      | - Fat content<br>- Milk s.n.f. content<br>- Sugars *)   |
| 3.9  | Edible acid casein (A 12)                      | - Extraneous matter<br>- Lead content   |
| 3.10 | Edible rennet casein (MDS 86/13 Add. 1)        | - Extraneous matter<br>- Lead content   |
| 3.11 | Edible caseinates (A 13)                       | - Extraneous matter<br>- Lead content   |
| 3.12 | Cottage cheese (C 16)                          | - Fat content<br>- Water content  |

\*) The provision should specify what is to be understood by "sugars" (total sugars, sucrose, reducing sugars etc.)

\*\*\*) From the analytical viewpoint determination of 0.1% caseinates in creams is not feasible.

\*) Acceptable Daily Intake

#### 4. Food additives

A review of the compositional standards under the Code of Principles revealed a daunting number of food additives for which so far no methods of analysis have been proposed to the Milk Committee. More than 130 additives were enumerated, not including enzymes and cultures not additives implicated by carryover from non-dairy components of dairy products -

The three organizations consider that for some provisions it is not feasible to develop analytical methods, for example owing to the natural occurrence of the "additive" in the product. They also doubt whether it is necessary to have methods corresponding to all the additives provisions and indeed, whether all the provisions are necessary.

The three organizations need a realistic approach to this problem. The following criteria are being adopted:

- i) In principle, if a Code Standard includes a quantitative provision, a method should be made available.
- ii) If an ADI \*) has been published for such an additive its determination should be given first priority.
- iii) If an additive has a quantitative provision but no ADI, a method may be needed but not urgently.

It is recommended that the three criteria set forth above adequately address the need for food additive methods.

#### 5. Matters raised at the 2 01 h Session of the Milk Committee

- 5.1 Lard in processed cheese: the competent joint group of experts has considered the question and reports that the determination of small quantities of lard in processed cheese cannot yet be reliably accomplished.
- 5.2 Use of recombined milk: some progress has been made in this field but it is unlikely that standard methods will be available for several years-
- 5.3 Formaldehyde in Provolone: the Italian method needs to be submitted to an inter-laboratory collaborative study.
- 5.4 Distinguishing UHT and sterilized milk: a joint group of experts has been established to develop a standard method which will probably include the determination of lactulose content.
- 5.5 Determination of vegetable proteins in milk proteins: A joint group of experts has been established and recently held its first meeting. However the group's principal objectives remain to be defined.

#### 6. General

- 6.1 The tripartite cooperation between IDF, ISO and AOAC was initiated at the request of the Milk Committee some 20 years ago and has become a model for cooperation between international organizations. The work will also be reported to the Interagency Meeting of international organizations dealing with the standardization of methods of analysis for foods which is held in conjunction with the session of the Codex Committee on Methods of Analysis and Sampling.

For the information of the Milk Committee a few examples of methods that will be submitted to the Codex Committee on Edible Ices and the Codex Committee on Foods for Special Dietary Uses are listed below.

- Milk-based edible ices and ice-mixes
- Fat content Edible ices and ice-mixes
- Fat content Milk-based infant foods
- Fat content Infant foods - Fat content

6.2 The three organizations meet regularly as a Tripartite Group. Matters relevant to the Milk Committee are reported to the Secretariat. The Tripartite Group will also meet immediately prior to the next Session of the Milk Committee.

REPORT OF AD HOC WORKING GROUP ON REVISION OF LABELLING  
PROVISIONS IN CODE OF PRINCIPLES STANDARDS

1. The Ad hoc Group was established on 2 June 1986 and met on 3 and 4 June 1986.

Present :

|                        |                |
|------------------------|----------------|
| P. Pittet (Chairman)   | Switzerland    |
| D. Burel               | France         |
| J.C. Gillis            | France         |
| A.P. Goll              | Canada         |
| H.W. Kay               | Germany F. R.  |
| J.P. Mareschi          | France         |
| N.J. Nyborg            | Denmark        |
| G. Rebske              | Germany F.R.   |
| B.L.S- Sutherland      | New Zealand    |
| D.W. Wilton            | United Kingdom |
| R. van Havere          | Belgium        |
| V - Zehren             | United States  |
| E. Hopkin (Rapporteur) | IDF            |
| B. Di x                | FAO            |
| G. Vos                 | EEC            |

Objectives

2. The Group's objectives were defined as follows:

- (a) To align the labelling provisions in the compositional standards associated with the Code of Principles concerning Milk and Milk Products with the general Standard for the Labelling of Prepackaged Foods using the Guidelines on Labelling Provisions in Codex Standards (Appendix IV and V of ALINORM 85/22A) -
- (b) To consider the implications of requests for declaration of fat content in milk product standards in the light of the draft guidelines on nutrition Labelling (Appendix III of ALINORM 85/22A) -
- (c) To consider IDF's proposal to exempt the declaration of salt from the general standard for cheese. (A-6).
- (d) To review the denomination of ghee and vanaspati.

3. ALL Codex Committees have been requested to review the Labelling provisions in the standards for which they are responsible in the Light of the adoption of the general standard for the labelling of prepackaged foods and the guidelines for labelling provisions in Codex Standards by the Codex Alimentarius Commission at its 1985 Session. The task of the Milk Committee is to revise its provisions and give clear instructions to the FAO/WHO Secretariat concerning the labelling clauses for submission to the Codex Committee on Food Labelling for endorsement.

4. The Working Group had before it documents MDS 86/8, MDS 86/5 and MDS 86/9.

#### Standard A-1 Butter and Whey Butter

5. Preamble: it was agreed that the preamble in Standard A-1 was applicable to all standards associated with the Code of Principles, the text being as follows:

#### 4. LABELLING

In addition to Sections 2, 3, 7 and 8 of the General Standard for the Labelling of Prepackaged Foods (Ref. No- CODEX STAN 1-1985) the following specific provisions apply:

Sections 2, 3, 7 and 8 of the General Standard relate, respectively, to definition of terms, general principles, optional labelling, and presentation of mandatory information.

6. Name of the Food (Clause 4.1):

The Group noted that specifying the designation "butter" or "whey butter" did not exclude the practice, in a number of countries of using qualifying additional words, such as "creamery butter".

7. In relation to butter made from milk it was agreed to make mandatory the declaration of the animal from which the milk was drawn, thus:

Where milk other than cow's milk is used for the manufacture of the product or any part thereof, a word or words denoting the animal or animals from which the milk has been derived shall be inserted immediately before or after the designation of the product except that no such insertion need be made if the consumer would not be misled by its omission.

(The square brackets round the word "shall" in line 4 4.1.2 have been removed).

8. Recombined and reconstituted products: The Working Group noted that the provisions for recombined and reconstituted products were being included as a consequence of a decision of the Milk Committee (Decision No. 5).

9. List of ingredients: The Group agreed that it is necessary to incorporate a list of ingredients provision and that it should be based on 4.2. of the General Standard. For most milk products, however, there should be certain exemptions and the following text is proposed for butter and whey butter:

"A complete list of ingredients shall be declared in accordance with Section 4.2 of the General Standard except that ingredients derived from milk and starter cultures need not be declared."

10. The Group also observed that unsalted butter without any other additives would be a "single ingredient food" within the terms of the general standard and, therefore, not need a list of ingredients. Starter cultures should be considered as processing aids and thus do not need to be declared.

11. The Group also agreed that the terminology used in Code Labelling provisions should be aligned with that in the general standard. Specifically for butter the provision for neutralizing salts should be re-named "acidity regulators".

12. Net contents: The Group agreed to retain the existing wording, thus :

#### 4.3 Net Contents

The net contents shall be declared by weight in metric units ("Systeme International") in accordance with Section 4.3 of the General Standard.

Mr. Zehren (US) observed that provision for the metric system alone would cause difficulties in his country and perhaps in others.

**NOTE :** In the Group of Experts for Fruit Juices it was considered that countries requiring declaration in units other than metric could accept the standards with specified deviation.

13. Name and address: The Group modified the text in MDS 86/8 (p. 3, 4.3) to eliminate the redundancy of wording viz-à-vis the general standard, thus:

#### 4.4 Name and Address

The name and address shall be declared in accordance with Section 4.4 of the General Standard.

14. Country of origin (manufacture): The Group agreed that for butter and, indeed, all milk products standards except those for cheeses, the terminology of the general standard "country of origin" was unambiguous and should be adopted. Furthermore the exemption of foods sold within the country of origin is covered by the text of the General Standard and need not be repeated. Accordingly the following text is proposed:

#### 4.4 Country of Origin

4.4.1 The country of origin of the food shall be declared in accordance with Section 4.5 of the General Standard.

14A. Lot identification and date marking: The Group agreed that the texts presented in MDS 86/8 were suitable as presented.

15. Instructions for use (clause 4.8 of the General Standard): The Group considered that there is no need for such a provision.

16. Quantitative labelling of ingredients (clause 5.1 of the General Standard): The Group agreed that this clause also is not applicable to butter and whey butter.

17. Irradiated foods (clause 5.2 of the General Standard): The Group agreed that it would be desirable to include a provision for irradiation in order not to place a hindrance on possible future developments (for the moment butter is not treated with ionizing radiation, nor is such treatment in the offing), but, because of doubts about current forms of expression, considered that it would be premature to include the provision of the General Standard.

18. Exemptions from mandatory Labelling requirements: (clause 6 of the General Standard): it was agreed to cross-refer to the provision in the General Standard thus, for small units where the largest surface area is less than 10 cm<sup>2</sup>, the labelling provision is limited to name of the food, net weight, name and address of the packer and the country of manufacture.

19. Non-retail containers (clause 5 of the Guidelines for Labelling Provisions in Codex Standards): The Group noted the definition of non- retail containers provided in the guidelines, as follows:

"Non-retail Containers means any form of packaging of foods not covered by the General Standard for the Labelling of Prepackaged Foods and includes, but is

not limited to, the following: containers of foods destined for further industrial processing, containers of foods destined for repackaging into consumer size packages, outer containers for a quantity of packaged or prepackaged foods, containers of raw materials and prepackaged foods for use in vending machines and freight containers being of permanent construction designed for re-use and intended for handling and transport of large consignments without intermediate re loading"

Furthermore it noted that in principle all the information required for prepackaged food should be supplied in relation to products supplied in bulk and the Committee's task was to determine which information should appear on the non-retail container itself and which in the accompanying documents.

20. The Group agreed that the requirements in the guidelines were suitable. These requirements are that the name of the product, the lot identification and the name and address of the manufacturer or packer shall appear on the container though the last two of these could be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.

21. In relation to date marking and storage instructions (Clause 4.7 of the general standard) the group agreed that provisions should be made to allow marking either on the container or in the accompanying documents, bearing in mind that the supplier would frequently have a specific request in this regard from the purchaser.

22. The group agreed that date marking should take the form of the date of manufacture (day, month, year) but recognized that this is a potentially contentious issue. Accordingly governments should be requested to give their opinion on the alternatives, date of manufacture and date of minimum durability in relation to non-retail containers of butter and whey butter (and other products, see below).

23 The group also agreed to draw the Committee's attention to the difficulty raised by the wording of the definition of non-retail container in the guidelines (see 18 above) which lumps together genuine containers of foods in bulk and outer containers for quantities of packaged or prepackaged foods. The labelling requirements for these types of containers could frequently be quite different and a definition in a different form would facilitate the drafting of the provisions.

24. The following wording was adopted:

#### Labelling of Non-Retail Containers

In addition to Sections 2 and 3 of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985), the following specific provisions apply to in non-retail containers/ as defined by the Codex Alimentarius Commission (See Page 123 of the Procedural Manual, 6th Edition).

Information required in Sections and [the date manufacture (day, month and year)] shall either be given on the container or in accompanying documents, except that the name of the product, lot Identification, and the name and address shall appear on the container. However lot identification, the name and address may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

Standard A-2 Anhydrous milk fat, anhydrous butteroil, butteroil and butterfat (MDS 86/8 and MDS 86/5)

- 25 Preamble: as A-1 para 5.
26. Name of the food: As the definition (MDS 86/5 Clause 1) restricts the origin of the product to cows milk there is no need to refer to milk from other species-
27. It was agreed to adopt the text developed for butter (see 9).
28. Net contents, name and address, country of origin, date marking, lot identification: the texts for butter were adopted (see 12, 13, 14, 14A).
29. Instructions for use: it was agreed to add a provision to the effect that products containing antioxidants should be marked with an indication that they should not be used for recombination or reconstitution to avoid the danger of their being fed to babies,
30. The group however agreed to seek the Committee's advice in relation to the exclusion of products for direct consumption.
31. Quantitative labelling of ingredients: no need for a provision.
32. Irradiated foods: as for butter (see 17).
33. Exemption from mandatory labelling requirements: as for butter (see 18).
34. Non-retail containers: as for butter (see 20, 21, 22).

Standard A-3 Evaporated milk and evaporated skimmed milk

35. Title of standard and Name of food. The title and the name of food clause were extended in the light of the Committee's decisions under item 9 of the agenda on the revision of Standard A-3 to include evaporated partly skimmed milk and evaporated high-fat milk.
36. Recombined products: MDS 86/8 adopted.
37. List of ingredients: as butter (see 9) omitting the reference to starter cultures.
38. Mme Burel (France) requested exemption from marking addition of stabilizers on the grounds that the quantities added varied throughout the year because of seasonal variations in the raw material. However, because they can only be considered as food additives (and not processing aids) their exemption could not be justified.
39. Net contents: the first paragraph (A.3.1 (declaration by weight in metric units) was retained but the second (4.3.2) (declaration of milk equivalent according to national Legislation was deleted, on the grounds that, as an optional item, governments are free to include it in any case.
40. Name and address, Country of origin, Lot identification. Date marking: as for butter (see 13, 14, 1 4 A).
41. Instructions for use: the group agreed that no provision was needed, for example in relation to dilution.
42. Quantitative Labelling, Irradiated foods: irrelevant.
43. Fat content: the group noted that the declaration of fat content concerned the quality of the product rather than its nutritional value. It could therefore be the subject of a provision without triggering a requirement for full nutrition labelling.

44. The group agreed that the fat content declaration should apply to all types of evaporated milk, including the skimmed variety.

45. Exemptions for mandatory labelling requirements: as butter (see 18).

Standard A-A Sweetened condensed milk and skimmed sweetened condensed milk

46. The decisions relating to evaporated milk (see to 45) apply.

47. Sugar content: The group agreed that no special mention was necessary because of the presence of the clause on the list of ingredients. Accordingly it was deleted.

Standard A-5 Whole milk powder, partly skimmed milk powder and skimmed milk powder

48. Name of food: The declaration of percentage by weight of milkfat content was restricted to partly skimmed milk powder and accordingly clause 5-1-4 concerning whole milk powder was deleted.

49. List of ingredients: as butter (see 9) omitting the reference to starter cultures.

50. Net contents, name and address, country of origin, lot identification, date marking: as butter (see 12, 13, 14, 14A).

51. Instructions for use; The group agreed to make provision by cross-referring to clause 4.8 of the general standard.

52. Exemption from mandatory labelling requirements: as butter (see 18).

Standard A-6 General Standard for cheese (MDS 86/8 and MDS 86/9 page 10)

53. Name of food: MDS 86/8 adopted.

54. Declaration of sodium chloride: The group took the view that the Codex Committee for Food Labelling was unlikely to regard the arguments put forward by IDF as sufficient justification to exempt salt from the list of ingredients provision. Pressure from consumers and from the medical profession for declaration of salt was increasing. The second reason advanced by IDF was called into question by recent research results. The Group also believed that it would be incongruous to exempt salt in cheese while including it in butter.

55. List of ingredients: The group agreed on the wording accepted for butter (see 9) with the following exemptions:

"except that ingredients derived from milk, starter cultures, rennet and coagulating enzymes need not be declared"

56. Net weight, Name and address: as butter (12, 13).

57. Country of manufacture: The group debated at some length the ambiguity of the expression country of origin and the desirability of following the terminology of the general standard, The members agreed that the new wording below should be satisfactory in both respects:

"Country of manufacture

The country of manufacture shall be declared in accordance with section 4.5 of the general standard- In particular, a cheese with the name of a variety and not manufactured in the country from which the variety first originated shall be marked with the country of manufacture even when sold on the home market".

58. Lot identification: The group agreed that the declaration should be in accordance with section 4.6 of the general standard except for cheeses that are not in a container or are prepackaged, ripened cheese that has been cut, sliced or grated.
59. Cheese from recombined or reconstituted milk : MDS 86/8 adopted.
60. Fat content (MDS 86/9 page 10): the IDF proposal was adopted.
61. Date marking: It was agreed to refer to section 4.7 of the general standard but to exempt whole cheeses which are still ripening.
62. Cheese in bulk: MDS 86/8 adopted.
63. Instructions for use: No.
64. Quantitative Labelling of ingredients: In discussion on standard A-8(b) Processed cheese and spreadable processed cheese the Group agreed that in a product such as processed cheese with ham the reference to ham did not constitute "special emphasis" in the sense of the general standard (section 5.1-1) and the ham content did not therefore need to be declared. However claims for low levels, for example, of fat or of salt would give such special emphasis and should be declared.
65. Accordingly the following wording was adopted for products for which claims were being made, this wording being equally applicable in Standards A-7 Whey Cheese and the three processed cheese product standards A-8 a, b, c:
- "Where applicable, quantitative Labelling of ingredients shall be made in accordance with section 5.1 of the general standard".
66. Irradiated foods: as butter (see 17)
67. Exemptions from mandatory labelling requirements: as butter (see 18).

#### Standard A-7 Whey Cheese

68. Name of the food, net contents, name and address, country of origin, lot identification, date marking, instructions for use, quantitative labelling, irradiated foods, non-retailed containers: as butter (see 7, 12, 13, 14, 14A, 15, 16, 17, 24).
69. List of ingredients: as butter (see 9) omitting the mention of starter cultures.
70. Exemptions from mandatory labelling requirements: None needed.

#### Standard A-8(a) Named variety processed cheese and spreadable processed cheese

71. Name of the food, list of ingredients, net contents, name and address, country of origin, Lot identification, date marking: MDS 86/8 adopted except that the exemptions for individual portions capable of being sold separately or being supplied at catering establishments shall not include name of the food, net contents, name and address and country of origin.
72. However, the group found considerable difficulty in providing for individual portions such as processed cheese slices that are individually wrapped (in clear film) and contained in a printed outer wrapper and boxed portions where the contents of the box are uniform, the portions individually wrapped in foil unlabelled with the labelling on the box. The following wording was suggested:
- "Individual portions of a uniform product, not intended for separate sale but packaged together in a correctly labelled master container need not be Labelled as individual units".

The group requests the Committee's advice on the labelling of such products.

73. Non retail container: as butter (see 24).

Standard A 8(b) General Standard for processed cheese and spreadable processed cheese and A 8 ( c) Processed Cheese preparations, processed cheese food and processed cheese spread

74. The decisions relating to Standard 8(a) are applicable. Standard A9 Cream for direct consumption

75. Name of the food: MDS 86/8 adopted and in 5.1.3 declaration of the heat treatment was made mandatory ("shall" rather than "should") and the declaration of milk other than cows milk ("shall" not "should").

76. Fat content: The group agreed to add a provision for the declaration of fat content.

77. List of ingredients: MDS 86/8 adopted (complete list).

78. Net contents: It was agreed to omit the requirement to declare by weight, declaration by volume thus being also permitted.

79. Name and address, country of origin, lot identification, date marking, instructions for use, quantitative labelling, irradiated foods, exemptions for mandatory labelling requirements, non-retail containers: as butter (see 13, 14, 14A, 15, 16, 17, 18, 24).

Standard A-10 Cream powder, half cream powder, high fat milk, milk powder

80. Name of the food, net contents, name and address, country of origin, lot identification, date marking, instructions for use, quantitative labelling, irradiated foods, exemptions from mandatory labelling requirements, non-retail containers: as butter (see 7, 12, 13, 14, 15, 16, 17, 18, 24).

81. List of ingredients: MDS 86/8 adopted (complete list).

Standard A-11(a) Yoghurt and Sweetened yoghurt

82. Name of the food: MDS 86/8 adopted and, in 4.1.1, the designation as yoghurt unqualified of the product with not less than 3% of milkfat made mandatory ("shall" not "should"); similarly, in 4.1.3 the declaration of milk other than cows milk was made mandatory ("shall" not "should").

83. List of ingredients: after a lengthy discussion the group agreed to change from a complete list of ingredients to the form adopted for butter (see 9) on the grounds that, unless there was good reason to do otherwise, the standards of the Milk Committee should be uniform.

84. Net contents: it was agreed to allow declaration by volume, thus deleting "by weight".

85. Name and address, country of origin, date marking, Lot Identification, instructions for use, irradiated foods, non-retail containers: as butter (see 13, 14, 14A, 15, 24).

86. Quantitative Labelling of ingredients: the group agreed that to cover the fat content of Low-fat yoghurt, a quantitative labelling provision should be included-

87. Exemptions from mandatory labelling requirements: it was agreed that no provision is needed.

#### Standard A-11(b) Flavoured yoghurt and products heat-treated after fermentation

88. Mr. Mareschi (France) questioned the inclusion of products heat-treated after fermentation with flavoured yoghurts on the grounds that they were not similar. The group observed that the question lay outside its terms of reference.

89. The decisions taken in relation to Standard A 11(a) (see 82-87) are applicable.

#### Standard A-12 Edible acid casein

90. "Food additives": the group considered the list of substances (lactic, citric, acetic, hydrochloric, sulfuric and phosphoric acids and lactic fermented whey) and concluded that they were all processing aids and thus not needing to be declared.

91. The group draws the Committee's attention to this inconsistency in terminology with today's Codex practice and suggests that the term "processing aids" be adopted in a future revision.

92. Name of food, net contents, lot identification, date marking: MDS 86/8 adopted.

93. Name and address, country of origin: to be labelled in accordance with the provisions of the general standard.

94. Instructions for use, exemptions from mandatory labelling: No provisions needed.

95. Non-retail containers: the group agreed that the date marking should indicate the date of manufacture, not that of minimum durability.

#### Standard A-13 Edible caseinates

96. The decisions concerning Standard A-12 are applicable (see 90-95).

#### Ghee and Vanaspati

97. The group took notice of the fact that the Codex Committee on Fats and Oils has not met since the Milk Committee's previous meeting (1982) and concluded that it would be desirable for a general discussion to take place in plenary session before the matter was considered by a smaller group -

#### Recombination

98. The group agreed to draw the Committee's attention to the fact that the Decision No. 5 which determines the applicability of the Code to recombined and reconstituted products gives no guidance as to the proportion of recombined or reconstituted material in a product that would require the product to be deemed recombined and therefore labelled as such.

#### APPENDIX VIII

'Processing aid' means any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, intentionally used in the processing of raw materials, foods or its ingredients, to fulfil a certain technological purpose during treatment or processing and which may result in the non-intentional but unavoidable presence of residues or derivatives in the final product.

STATEMENT BY THE DELEGATION OF BELGIUM

Introductory Note

The aim of this document is not to treat all health aspects in relation to the production and trade of milk and milk products in order to deliver a wholesome and healthy commodity for the consumer. We only want to draw the attention of the Committee to some aspects.

The quality of the produced milk will be directly related to animal health, the environmental situation where and how milk-producing animals are living and eating and to the quality of feeding stuffs fed to these cows. In most cases, heat treatment or other physical treatments like fat standardization, do not significantly change the original level of environmental contaminants (chemical compounds) present in raw milk-

International trade in milk and milk products has not only to deal with standards for well-defined commodities but also with two main health aspects: hygienic requirements and maximum residue levels for some chemical compounds for which a general overview will be given.

1. Hygiene and health certificate systems

This matter is covered to some extent by individual Codex Standards, microbiological specifications and some Codes of hygienic practices (see that for Dried Milk for instance). However, in spite of existing Codex microbiological standards and Codes of Hygienic Practice, some countries require definite and well-specified guarantees by requiring health certificates. Even for animal health risks, some countries insist on a certificate assuring that the imported milk or milk products are free of any animal disease and that these commodities are so heat treated that no problem can be expected from the milk as a source of contamination.

Certificate systems are not considered in the Codex system, but as we have been informed during this Session, the FAO Animal Production and Health Division is concerned with them.

In order to avoid serious trade barriers, the Committee has at least to be aware of existing national certificate systems.

2. Contaminants

Different Codex Committees and International Bodies are concerned.

The Committee of Code of Principles for Milk and Milk Products should express its concern in relation to possible environmental contamination of milk, being a basic food often destined for high risk groups of the population (infants, children, elderly people).

The Committee should encourage responsible Codex Committees such as CCFA, CCPR, CCFH and advisory expert committees such as JECFA and JMPR in order to evaluate submitted data and to fix internationally acceptable maximum residue levels.

## Overview of contaminants possibly present in milk and milk products

### 2.1 Pesticide residues in milk

CCPR is considering this matter. A number of MRLs have already been accepted by the Commission and others are under consideration.

We refer to the published MRLs in Vol. XIII. Also the reports of CCPR and the "Evaluations" of JMPR are extremely useful in this matter.

The Committee should take note also of the way to MRLs of fat soluble pesticides (i.e. organochlorinated pesticides) and should be expressed in milk and milk products, i.e. either on fat basis or on whole commodity basis.

Besides setting maximum residue limits for pesticides, also "extraneous residue limits" are recommended for pesticide residues present in the environment.

Finally, direct cattle treatment by insecticides in order to destroy parasites on the skin can lead to residues in milk, requiring MRLs.

Toxicological data and Good Agricultural Practices are taken into account by setting MRLs.

### 2.2 Polychlorinated Biphenyls (PCB)

In spite of completely different origin of PCBs compared to pesticides, PCBs are also considered by CCPR and JMPR due to their chemical similarity to organochlorine pesticides.

The contamination of milk by PCBs as the result of industrial use of the compounds is a quite common fact in industrialized countries. Countries should be encouraged to set up monitoring studies in this field. FAO/WHO have worked out interesting surveillance and monitoring systems (Joint FAO/WHO Food Contamination Monitoring Programme) (JFCMP). In some European countries for instance a permanent background level of PCB in milk is found up to the level of 0.2 ppm in milk on a fat basis. Reliable methods are under preparation (ISO/IDF/AOAC).

### 2.3 Veterinary Drugs

Attention should be paid to the possible presence in milk of some residues of hormones, anaboles and antibiotics due either to the treatment of cattle (medical treatment by injection or per os) or by adding these compounds to animal feeding stuffs-

For example, treatment of mastitis with penicillin or other antibiotics could lead to residues in milk. Recently cases were announced of the use of chloramphenicol in cattle (as a wide spectrum antibiotic) and residues of this antibiotic were found in milk.

The Commission decided to establish a new Codex Committee dealing with problems of veterinary drug residues in food commodities of animal origin- Some countries have stipulated in their national legislation: absence of such residues- The question is to know whether "absence" means "limit of determination" or some other value. The support of reliable methods will be helpful and ISO/IDF/AOAC will be involved in this matter.

### 2.4 Aflatoxin and other Mycotoxins

The possible presence of aflatoxin M<sub>1</sub> in milk or milk products will certainly concern the Committee- The CCFA is particularly involved in this matter and so is also UNEP.

The problem in milk is related to the contamination of feeding stuffs (especially maize and peanut) fed to dairy cattle with moulds of *Aspergillus flavus* producing aflatoxin B1, B2, G1 and G2- The mycotoxin is transformed in milk into aflatoxin M1.

The CCFH has to be informed that hygienic requirements should be elaborated for groundnut presscake (not only destined directly for human consumption but also groundnuts destined for animal feeding stuff).

Maximum residue levels of aflatoxin present in feeding stuffs should be set (see EEC regulations). On the other hand, the Committee should be aware that national residue levels have been fixed for aflatoxin M. We draw attention to a Circular Letter CL 1986/30 FA (Food Additive Committee) asking governments to inform the CCFA Committee on national levels included for milk.

It has been noted that a significant gap exists between the most "restrictive" and the most "liberal" national levels for aflatoxin in milk.

Therefore, the work undertaken by CCFA is extremely useful and could help to establish an acceptable level of aflatoxin M1 in milk in relation to toxicological evaluations.

## 2.5 Heavy metals

Some standards for milk and milk products contain already maximum levels for certain heavy metals. Besides environmental contaminants (lead and cadmium) also contaminants due to the processing (tin, copper) can be present.

Monitoring seems the best way to survey the environmental contamination of milk.

CCFA is involved in this question. JECFA has undertaken many studies and has evaluated a number of heavy metals (see also technical reports of FAO/WHO).

Particular attention should be paid to the intake of lead and cadmium by infants and children. Knowing that milk powder is mostly the basic ingredient for infant food formula, the Committee should take care that milk powder destined for such a preparation corresponds to high level quality requirements. (See MDS 86/4, (c) Other Matters - 181 h Session of CCFA paragraph 32-33).

## 2.6 Radioactivity

The Committee will take note of the fact that milk and milk products were directly involved and suspected after the Chernobyl accident- Levels have been fixed by a number of countries for I 131 (short life radionuclide) - However, in the immediate future CS 134 and CS 137 have to be carefully monitored in milk as well.

The Committee should express its concern on this matter and the hope that FAO and WHO will prepare documents in which general considerations on radioactivity levels in foods, particularly in relation to milk, will be reflected.

REVISED STANDARD A-3 FOR EVAPORATED MILK, EVAPORATED SKIMMED MILK, EVAPORATED PARTLY SKIMMED MILK AND EVAPORATED HIGH-FAT MILK

1. DEFINITIONS

- 1.1 Evaporated milk is a Liquid product, obtained by the partial removal of water only from milk.
- 1.2 Evaporated skimmed milk is a liquid product, obtained by the partial removal of water only from skimmed milk -
- 1.3 Evaporated partly skimmed milk is a liquid product, obtained by the partial removal of water only from partly skimmed milk.
- 1.4 Evaporated high-fat milk is a liquid product obtained by the partial removal of water only from cream enriched milk.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Evaporated milk

- 2.1.1 Minimum milk fat content: 7-5% m/m
- 2.1.2 Minimum milk solids not fat content: 17.5% m/m

2.2 Evaporated skimmed milk

- 2.2.1 Maximum milk fat content: 1.0% m/m
- 2.2.2 Minimum milk solids content: 20.0% m/m

2.3 Evaporated partly skimmed milk

- 2.3.1 Milk fat content: more than 1.0% and less than 7.5% m/m
- 2.3.2 Minimum milk solids not fat content: 17,5% m/m
- 2.3.3 Minimum milk solids content: 20-0% m/m

2.4 Evaporated high-fat milk

- 2.4.1 Minimum milk fat content: 15.0% m/m
- 2.4.2 Minimum milk solids not fat content: 11.5% m/m

3. FOOD ADDITIVES

Stabilizers      Maximum Level

- |  |   |                   |                           |                                   |           |
|--|---|-------------------|---------------------------|-----------------------------------|-----------|
| <ul style="list-style-type: none"> <li>3.1 Sodium, potassium and calcium salts of:               <ul style="list-style-type: none"> <li>hydrochloric acid</li> <li>citric acid</li> <li>carbonic acid</li> <li>orthophosphoric acid</li> <li>polyphosphoric acid</li> </ul> </li> <li>3.2 Carrageenan</li> </ul> | <table border="0"> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">2000 mg/kg singly</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">3000 mg/kg in combination</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">expressed as anhydrous substances</td> </tr> <tr> <td style="border-left: 1px solid black; padding-left: 5px;">150 mg/kg</td> </tr> </table> | 2000 mg/kg singly | 3000 mg/kg in combination | expressed as anhydrous substances | 150 mg/kg |
| 2000 mg/kg singly  |   |                   |                           |                                   |           |
| 3000 mg/kg in combination  |   |                   |                           |                                   |           |
| expressed as anhydrous substances  |   |                   |                           |                                   |           |
| 150 mg/kg  |   |                   |                           |                                   |           |

4. LABELLING

[The labelling sections of all milk product standards are being amended in accordance with paragraphs 80 to 94 of the Report of the 21st Session of the Milk Committee. The new texts will be submitted to governments separately D.

5. METHODS OF SAMPLING AND ANALYSIS

- 5.1 Sampling: according to FAO/WHO Standard B-1, "Sampling Methods for Milk and Milk Products", paras. 2 and 4.
- 5.2 Determination of fat content: according to FAO/WHO Standard B-7, "Determination of the Fat Content of Evaporated Milks and of Sweetened Condensed Milks".
- 5.3 Determination of the total solids content of milk, cream and evaporated milk (provisional reference method) IDF Standard 21A 1982.

REVISED STANDARD A-4 FOR SWEETENED CONDENSED MILK,  
SWEETENED CONDENSED SKIMMED MILK, SWEETENED CONDENSED  
PARTLY SKIMMED MILK AND SWEETENED CONDENSED HIGH-FAT MILK

1. DEFINITIONS

- 1.1 Sweetened condensed milk is a product obtained by the partial removal of water only from milk, with the addition of sugars.
- 1.2 Sweetened condensed skimmed milk is a product obtained by the partial removal of water only from skimmed milk, with the addition of sugars -
- 1.3 Sweetened condensed partly skimmed milk is a product obtained by the partial removal of water only from partly skimmed milk, with the addition of sugars.
- 1.4 Sweetened condensed high-fat milk is a product obtained by the partial removal of water only from cream enriched milk, with the addition of sugars.

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Evaporated milk

2.1.1 Minimum milk fat content: 7.5% m/m

2.1.2 Minimum milk solids not fat content: 17.5% m/m

2.2 Evaporated skimmed milk

2.2.1 Maximum milk fat content: 1.0% m/m

2.2.2 Minimum milk solids content: 20.0% m/m

2.3 Evaporated partly skimmed milk

2.3.1 Milk fat content: more than 1.0% and less than 7.5% m/m

2.3.2 Minimum milk solids not fat content: 17,5% m/m

2.3.3 Minimum milk solids content: 20.0% m/m

2.4 Evaporated high-fat milk

2.4.1 Minimum milk fat content: 15.0% m/m

2.4.2 Minimum milk solids not fat content: 11.5% m/m

2.5 Sugar content (note on)

The proportion of sugar which may be added to milk is restricted by Good Manufacturing Practice to a minimum value which safeguards the keeping quality of the product and a maximum value above which crystallisation of the sugar may occur. In the case of sucrose the quantity added should be such that  $(100 \times \% \text{ sucrose}) / (\% \text{ sucrose plus } \% \text{ water})$  is between 60.5% and 64,5%.

### 3. FOOD ADDITIVES

|     | <u>Stabilizers</u>  | <u>Maximum Level</u>  |
|-----|---|---|
| 3.1 | Sodium, potassium and calcium salts of:<br>hydrochloric acid<br>citric acid<br>carbonic acid<br>orthophosphoric acid<br>polyphosphoric acid | 2000 mg/kg singly<br>3000 mg/kg in<br>combination<br>expressed as anhydrous<br>substances |
| 3.2 | Carrageenan   | 150 mg/kg   |

### 4. LABELLING

[The labelling sections of all milk product standards are being amended in accordance with paragraphs 80 to 94 of the Report of the 21st Session of the Milk Committee. The new texts will be submitted to governments separately]

### 5. METHODS OF SAMPLING AND ANALYSIS

- 5.1 Sampling: according to FAO/WHO Standard B-1, "Sampling Methods for Milk and Milk Products", paragraphs 2 and 4.
- 5.2 Determination of fat content: according to FAO/WHO Standard B-7, "Determination of the Fat Content of Evaporated Milks and of Sweetened Condensed Milk".
- 5.3 Determination of sucrose content: according to FAO/WHO Standard B-14, "Polarimetric Determination of the Sucrose Content of Sweetened Condensed Milk"
- 5.4 Determination of the total solids content of sweetened condensed milk (reference method) IDF Standard 15A 1982.

## APPENDIX XI I

### DRAFT A-14 STANDARD FOR EDIBLE RENNET CASEIN

#### 1. SCOPE

This standard applies to dried edible casein products derived from cow's milk as described in 2. It covers two grades A and B which differ in the contents of protein and milk derives non-protein constituents.

#### 2. DESCRIPTION

Edible Rennet Casein is the product obtained after washing and drying the coagulum remaining after separating the whey from skimmed milk which has been coagulated by rennet or by other coagulating enzymes.

#### 3. ESSENTIAL COMPOSITION AND QUALITY FACTOR

##### 3.1 Essential Ingredients

Skimmed milk

##### 3.2 Composition

|  | Grade |      |
|--|-------|------|
|  | A     | B    |
| 3.2.1 Protein (total N x 6.38) % in dry matter minimum | 88    | 84   |
| 3.2.2 Milk fat % in dry matter maximum                 | 1.5   | 2.0  |
| 3.2.3 Ash % in dry matter minimum                      | 7.0   | 7.0  |
| 3.2.4 Lactose % in dry matter maximum                  | 0.5   | -    |
| 3.2.5 Moisture % maximum                               | 12.0  | 12.0 |

##### 3.3 Quality Factors

3.3.1 Physical appearance: white to pale cream colour; if ground. free from lumps that do not break under slight pressure.

3.3.2 Scorched particles and extraneous matter: maximum 15 mg/25 g.

3.3.3 Flavour and odour: Grade A; must be natural; free from offensive flavours and odours.

Grade B: no more than slight foreign flavours and odours: free from offensive flavours and odours.

#### IDF STANDARD

(unless otherwise indicated)

50A : 1980 - Milk and Milk Products - Guide to sampling techniques

8.2 Protein: 92 : 1979 - Caseins and Caseinates - Determination of protein content.

8.3 Milk fat: In preparation

8.4 Ash: 90 : 1979 - Rennet Caseins and Caseinates - Determination of ash.

8.5 Lactose: 106 : 1982 - Caseins and Caseinates - Lactose content.

8.6 Moisture: 78B : 1980 - Caseins and Caseinates - Determination of water content.

#### 4. FOOD ADDITIVES

Rennet or other similar and suitable coagulating enzymes.

#### 5. CONTAMINANTS

|            |         |          |
|------------|---------|----------|
| 5.1 Copper | maximum | 5 mg/kg  |
| 5.2 Lead   | maximum | 2 mg/kg  |
| 5.3 Iron   | maximum | 20 mg/kg |

## **6. HYGIENE**

6.1 Edible Rennet Casein should be manufactured in conformity with the 'General Code of Hygienic Practice for the Dairy industry' (IDF Document 123 : 1980).

6.2 The skimmed milk, or the coagulum, should be adequately heat treated to minimize possible health hazards arising from pathogenic micro-organisms associated with milk and/or to comply with any specific microbiological criteria.

6.3 Equipment and apparatus for the manufacture of edible rennet casein should preferably be made of stainless steel, or other suitable non-contaminating material.

## **7. LABELLING**

7.1 The products should be generally labelled in accordance with the FAO/WHO Codex Alimentarius Commission Recommended Guidelines for the Labelling of Non Retail Containers of Food (in preparation).

7.2 The description shall include the:

7.2.1 Name of the product: 'Edible Rennet Casein' or 'Rennet Casein, Edible'.

7.2.2 Quality Grade: 'Grade A' or 'Grade B'

## **8. ANALYTICAL METHODS**

### **IDF STANDARD (unless otherwise indicated)**

- 8.1 Sampling: 113 : 1982 - Milk and Milk products - Sampling - Attribute sampling scheme
- 8.7 Scorched 107 : 1982 - Caseins and Caseinates  
Particles Scorched particles content.
- 8.8 Copper: 76A : 1980 - Milk and Milk Products - Determination of copper content.
- 8.9 Lead: IDF method under development.
- 8.10 Iron 103 : 1981 - Milk and Milk Products - Determination of the iron content.

## **9. ADVISORY MICROBIOLOGICAL CRITERIA**

See Addendum 1 to IDF Document 123 (1980), General Code of Hygienic Practice for the Dairy industry (sec D-Doc 108).

## APPENDIX XIII

### DRAFT A-15 STANDARD FOR FOOD GRADE SWEET WHEY AND ACID POWDERS

#### 1 SCOPE

This standard applies to food grade whey powders derived from cow's milk.

The standard does not apply to powders prepared from neutralized or demineralized whey.

#### 2 DEFINITIONS

2.1 Whey powders are prepared by spray or roller drying sweet or acid whey from which the major portion of milk fat has been removed.

2.2 Whey is the fluid separated from the curd after the coagulation of milk, cream, skimmed milk or butter milk in the manufacture of cheese, casein or similar products.

2.2 Sweet whey is obtained after coagulation principally with rennet type enzymes.

2.3 Acid whey is obtained after coagulation principally with acids of the type used for the manufacture of edible acid casein, or fresh cheese.

#### 3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

##### 3.1 Essential Ingredients

Edible quality sweet or acid whey derived from cow's milk.

##### 3.2 Optional Ingredient

Seed lactose as a processing aid in the manufacture of pre-crystallized (non-hygroscopic) whey powder.

##### 3.3 Composition

|  | Sweet whey Powder | Acid Whey Powder |
|--|-------------------|------------------|
| 3.3.1 Lactose (anhydrous) minimum %      | 61.7              | 57.0             |
| 3.3.2 Protein (Total N x 6.38) minimum % | 11                | 10               |

|                                 |          |          |
|---------------------------------|----------|----------|
| 3.3.3 Fat maximum %             | 2        | 2        |
| 3.3.4 "Free" moisture maximum % | 4.5      | 4.5      |
| 3.3.5 Ash maximum %             | 9.5      | 15.0     |
| 3.3.6 pH (in 10% solution)      | 5.6 min. | 5.1 max. |

##### 3.4 Quality Factors

3.4.1 Physical Appearance: Uniform colour corresponding to that of the whey from which the powder is derived. Free from lumps that do not break up under moderate pressure.

3.4.2 Flavour and Odour: Free from off flavours and odours.

#### 4 FOOD ADDITIVES

4.1 Additives carried over as a result of their use at permissible levels in the manufacture of cheese, edible casein and similar products.

4.2 Edible quality anti-foaming agents as processing aids.

4.3 Food grade acid as a processing aid to prevent adherence to rollers in the manufacture of roller dried powders. in quantity in accordance with good manufacturing practice.

4.4 Edible quality free-flow agents.

#### 5 CONTAMINANTS

|                     | maxima mg/kg |
|---------------------|--------------|
| 5.1 Copper          | 5            |
| 5.2 Lead            | 2            |
| 5.3 Iron            | 20           |
| spray dried powder  |              |
| roller dried powder | 50           |

## 6 HYGIENE

6.1 Food grade whey powders should be manufactured in conformity with the 'General Code of Hygienic Practice for the Dairy Industry' IDF Document 123 : 1980.

6.2 The whey should be adequately heat-treated to minimize possible health hazards arising from pathogenic micro-organisms associated with milk and/or to comply with any specific microbiological criteria.

6.3 Equipment and apparatus for the manufacture of food grade whey powders should preferably be made of stainless steel, or other suitable non-contaminating material.

## 7 LABELLING

7.1 The products should be generally labelled in accordance with the FAO/WHO Codex Alimentarius Commission 'Recommended Guidelines for the Labelling of Non-Retail Containers of Food' (in preparation).

7.2 The description shall include the:

7.2.1 Name of the product: 'Food Grade Sweet Whey Powder' or 'Food Grade Acid Whey Powder'.

7.2.2 Type of drying operation: roller dried or spray dried

7.2.3 The presence of anti-foam and free-flow agents shall be declared when used.

## 8 SAMPLING & METHODS OF ANALYSIS

### Standard

8.1 Sampling IDF 113 : 1982 - Milk and Milk Products - Sampling - Attribute sampling scheme

50A : 1980 - Milk and Milk Products - Guide to sampling techniques.

8.2 Lactose IDF 79 : 1977 - Determination of lactose in the presence of reducing substances.

8.3 Protein ID1 92. 1979 - Casein and caseinates - Determination of protein content.

8.4 Fat IDF 9A : 1969 - Determination of the fat content of dried milk.

8.5 "Free" IDF 58 : 1970 - Determination of dry moisture matter content of whey cheese.

8.6 Ash IDF 90 : 1979 - Rennet casein and caseinates - Determination of ash.

8.7 pH IDF 115 : 1982 - Caseins and caseinates - Determination of pH. Reference method

8.8 Copper IDF 76A : 1980 - Determination of copper content.

8.9 Lead IDF method in preparation.

8.10 Iron IDF 103 : 1981 - Determination of iron content.

## 9 ADVISORY MICROBIOLOGICAL CRITERIA

General Code of Hygienic Practice for the Dairy Industry. Document 123 : 1980. Addendum 1 : 1983 (sec D-Doc 108).

### Footnote-

*Although (he powders may contain both anhydrous lactose and lactose monohydrate, in section 3.3.1 the lactose con-tent is expressed as anhydrous lactose.*

*Note.- 100 parts of lactose monohydrate contain 95 parts of anhydrous lactose.*

## APPENDIX XIV

### DRAFT STANDARD A-16 FOR LOW FAT DAIRY SPREADS

#### 1. SCOPE

This standard applies to any prepackaged products for direct consumption which complies with the provision of this standard.

#### 2. DESCRIPTION

##### 2.1 Product definition

Low fat dairy spreads is a food in the form of a spreadable emulsion, which is mainly of the type water/oil, containing water and fat, the latter being exclusively derived from milk, the fat content being not less than 39% m/m and not more than 41% m/m.

##### 2.2 Other definitions

2.2.1 Unless otherwise specified in the labelling, the milk fat must be derived from cow's milk.

2.2.2 Prepackaged means packaged or made up in advance, ready for retail sale in a container.

2.2.3 A lot is a quantity of food manufactured under essentially identical conditions, all packages of which should bear a marking that will allow the identification of the source(s) of raw material(s), conditions of manufacture and day of final packing.

#### 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

##### 3.1 Raw materials

3.1.1 Milk and/or milk products and/or water

3.1.2 Milk fat subjected to only physical process of modification, excluding therefore the use of processing aids. Where fractionation is used, dry fractionation only is implied.

3.1.3 Fat content not less than 39% m/m and not more than 41% m/m.

3.1.4 Water content not more than 48% m/m as determined by loss of mass on drying.

3.1.5 Edible milk protein, not less than 3.0%.

##### 3.2 Optional ingredients

The following substances may be added:

3.2.1 Culture of harmless lactic acid producing bacteria.

##### 3.2.2 Vitamins

Maximum and minimum levels for vitamins should be laid down by national legislation.

3.2.3 Sodium chloride.

3.2.4 Sugars

3.2.5 Gelatine.

3.2.6 Natural starches.

#### 4. FOOD ADDITIVES

##### 4.1 Colours Maximum Level

4.1.1 Beta-carotene 25 mg/kg

4.1.2 Annatto extracts 20 mg/kg (calculated as total bixin or norbixin)

##### 4.2 Flavours

4.2.1 Natural butter flavours and flavouring substances and nature-identical flavouring substances as defined for the purpose of the Codex Alimentarius (see Codex Guide to the Safe Use of Food Additives (CAC/FAL 5-1979) Limited by GMP

##### 4.3 Emulsifiers

4.3.1 Lecithins Limited by GMP

4.3.2 Mono and diglycerides of fatty acids Limited by GMP

##### 4.4 Thickening agents

4.4.1 Pectin

4.4.2 Agar-agar

4.4.3 Carrageenan

4.4.4 Guar gum

4.4.5 Locust bean gum

4.4.6 Xanthan gum (\*)

4.4.7 Methyl cellulose 10 g/kg individually or in combination

4.4.8 Carboxymethyl cellulose and its sodium salts

4.4.9 Sodium, potassium, calcium and ammonium alginates

4.4.10 Propylene glycol alginate

##### 4.5 Preservatives

4.5.1 Sorbic acid and its sodium, potassium and calcium salts 2500 mg/kg

4.5.2 Benzoic acid and its sodium and potassium salts 1000 mg/kg

If used in combination, the combined use shall not exceed 2500 mg/kg of which the benzoic acid portion shall not exceed 1000 mg/kg

- 4.6 pH correcting agents
- 4.6.1 Lactic acid and their calcium, potassium  
Citric acid and sodium salts
- 4.6.3 Sodium hydrogen carbonate
- 4.6.4 Sodium carbonate
- 4.6.5 Sodium hydroxide
- 4.6.6 Sodium monophosphates (orthophosphates)

Limited by GMP

## 5. CONTAMINANTS

- 5.1 Iron (Fe), maximum 1.5 mg/kg
- 5.2 Copper (Cu), maximum 0.1 mg/kg
- 5.3 Lead (Pb), maximum 0.1 mg/kg
- 5.4 Arsenic (As), maximum 0.1 mg/kg

## 6. HYGIENE

It is recommended that the product covered by the provisions of this standard be prepared in accordance with the appropriate sections of the General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (Ref. No. CAC/RCP 1-1969). Reference is also made to the IDF General Code of Hygienic Practice for the production of Milk (A-Doc 63/1) and to the IDF General Code of Hygienic Practice for the Dairy Industry (IDF Document 178).

## 7. PACKAGING

Low fat dairy spreads when sold by retail, shall be prepackaged and may be sold in a pack of any shape.

## 8. LABELLING

[The labelling sections of all milk product standards are being amended in accordance with paragraphs 80 to 94 of the Report of the 21st Session of the Milk Committee. The new texts will be submitted to governments separately]

## 9. METHODS OF ANALYSIS (Subject to further consideration by IDF/ISO/AOAC)

- 9.1 Determination of milk fat content.
- 9.2 Determination of loss of mass on drying.
- 9.3 Determination of Vitamin A content
- 9.4 Determination of Vitamin D content
- 9.5 Determination of Vitamin E
- 9.6 Determination of sodium chloride content
- 9.7 Determination of iron
- 9.8 Determination of copper
- 9.9 Determination of lead
- 9.10 Determination of arsenic

9.11 Determination of additives

10. METHODS OF SAMPLING

IDF, ISO, Milk and Milk Products, Guide to sampling techniques-

## APPENDIX XV

### REVISED STANDARD A-2 FOR MILKFAT PRODUCTS

#### - SECTION A -

#### STANDARD FOR (i) ANHYDROUS MILKFAT, (ii) ANHYDROUS BUTTEROIL, AND (iii) BUTTEROIL

##### 1. DEFINITIONS

Anhydrous milk fat, anhydrous butteroil and butteroil are products exclusively obtained from cows milk, cream or butter by means of processes which result in almost the total removal of water and nonfat solids.

##### 2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

###### 2.1 Anhydrous milk fat

2.1.1 Minimum milkfat content: 99,8% m/m

2.1.2 Maximum water content: 0.1% m/m

2.1.3 Maximum free fatty acids content: 0.3% m/m, expressed as oleic acid

2.1.4 Maximum peroxide value: 0.3 milli-equivalents of oxygen/kg fat

2.1.5 Maximum copper content: 0.05 mg/kg

2.1.6 Maximum iron content: 0.2 mg/kg

2.1.7 Maximum content of dissolved oxygen: 10 mg/kg fat

2.1.8 Taste and odour, after heating a sample to 40-45 C: acceptable for market requirements

2.1.9 Texture, depending on temperature: smooth and fine granules to Liquid

###### 2.2 Anhydrous butteroil

2.2.1 Minimum milkfat content: 99.8% m/m

2.2.2 Maximum water content: 0.1% m/m

2.2.3 Maximum free fatty acids content: 0.3% m/m, expressed as oleic acid

2.2.4 Maximum peroxide value: 0.3 milli-equivalents of oxygen/kg fat

2.2.5 Maximum copper content: 0.05 mg/kg

2.2.6 Maximum iron content: 0.2 mg/kg

2.2.7 Taste and odour, after heating a sample to 40-45°C: acceptable for market requirements

2.2.8 Texture, depending on temperature: smooth and fine granules to Liquid

###### 2.3 Butteroil

2.3.1 Minimum milkfat content: 99-6% m/m

2.3.2 Maximum water content: 0.3% m/m

2.3.3 Maximum free fatty acids content: 0.4% m/m, expressed as oleic acid

2.3.4 Maximum peroxide value: 0.6 milli-equivalents of Oxygen/kg fat

- 2.3.5 Maximum copper content: 0.05 mg/kg
- 2.3.6 Maximum iron content: 0.2 mg/kg
- 2.3.7 Taste and odour, after heating a sample to 40-45 C: acceptable for market requirements
- 2.3.8 Texture, depending on temperature: smooth and fine granules to Liquid

### 3. FOOD ADDITIVES

#### 3.1 Anhydrous milkfat

Inert gas with which the airtight containers are flushed before, during and after filling with the product. Carbon dioxide is not acceptable for this purpose.

#### 3.2 Anhydrous butteroil and butteroil

##### 3.2.1 Antioxidants

Any combination of the following compounds:

|                            |                               |
|----------------------------|-------------------------------|
| Propyl gallate             | Maximum level                 |
| octyl gallate              | 200 mg/kg but gallates not to |
| dodecyl gallate            | exceed 100 mg/kg              |
| ascorbyl palmitate         |                               |
| butyl hydroxyanisole (BHA) |                               |
| butyl hydroxytoluene (BHT) |                               |

3.2.2 Inert gas with which the airtight containers are flushed before, during and after filling with the product- Carbon dioxide is not acceptable for this purpose.

### 4. LABELLING

[The Labelling sections of all milk product standards are being amended in accordance with paragraphs 80 to 94 of the Report of the 21st Session of the Milk Committee. The new texts will be submitted to governments separately]

### 5. METHODS OF SAMPLING AND ANALYSIS

- 5.1 Sampling: according to IDF Provisional Standard 50A: 1980 (ISO/DIS 707): "Milk and Milk Products - Guide to Sampling Techniques "
- 5.2 Determination of free fatty acids content, expressed as oleic acid: according to FAO/WHO Standard B4 "Determination of the Acid Value of Fat from Butter". The free fatty acids content can be calculated by multiplying the acid value by 0.282.
- 5.3 Determination of peroxide value: according to the method described in the Report of the Nineteenth Session of the Joint FAO/WHO Committee of Government Experts on the Code of Principles concerning Milk and Milk Products, page 99-101 (IDF Standard 74: 1974 = ISO 3976).
- 5.4 Detection of vegetable fat: according to either FAO/WHO Standard B16 "Milkfat - Detection of Vegetable Fat by the Phytosteryl Acetate Test" or FAO/WHO Standard B17 "Milkfat - Detection of Vegetable Fat by Gas-Liquid Chromatography of Sterols (Reference Method)".

- 5.5 Determination of copper content : according to IDF Standard 76A: 1980 "Milk and milk products =Determination of copper content -Photometric reference method = ISO 5738.
  - 5.6 Determination of iron content: according to IDF Provisional Standard 103: 1981 "Milk and milk products - Determination of iron content - Photometric reference method" = ISO 6732.
  - 5.7 Determination of dissolved oxygen content: according to IDF Standard ..... (= ISO.....) +).
  - 5.8 Determination of water content: according to IDF Standard 23: 1964 "Determination of the water content of butteroil by the Karl Fisher method".
  - 5.9 Determination of fat content: according to IDF Standard 24: 1964 "Determination of the fat content of butteroil".
- +) in preparation

## STANDARD FOR GHEE

### 1. DEFINITION

Ghee is a product obtained exclusively from milk and/or fat enriched milk products of various animal species by means of processes which result in almost the total removal of water and nonfat solids and in the development of a characteristic flavour and texture.

### 2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Minimum milkfat content: 99.6% m/m

2.2 Maximum water content: 0.3% m/m

2.3 Taste and odour, after heating a sample to 40-45 C: acceptable for market requirements

2.4 Texture, depending on temperature: smooth and fine granules to liquid.

### 3. FOOD ADDITIVES

3.1 Antioxidants

Any combination of the following compounds:

propyl gallate

octyl gallate

dodecyl gallate

ascorbyl palmitate

butyl hydroxyanisole (BHA)

butyl hydroxytoluene (BHT)

Maximum level

200 mg/kg but gallates  
not to exceed 100 mg/kg

3.2 Inert gas with which the airtight containers are flushed before, during and after filling with the product. Carbon dioxide is not acceptable for this purpose.

### 4. LABELLING

[The labelling sections of all milk product standards are being amended in accordance with paragraphs 80 to 94 of the Report of the 21st Session of the Milk Committee. The new texts will be submitted to governments separately]

### 5. METHODS OF SAMPLING AND ANALYSIS

5.1 Sampling: according to IDF Provisional Standard 50A: 1980 (ISO/DIS 707): "Milk and Milk Products - Guide to Sampling Techniques "

5.2 Detection of vegetable fat: according to either FAO/WHO Standard B16 "Milkfat - Detection of Vegetable Fat by the Phytosteryl Acetate Test" or FAO/WHO Standard B17 "Milkfat - Detection of Vegetable Fat by Gas-Liquid Chromatography of Sterols (Reference Method)".

5.3 Determination of water content: according to IDF Standard 23: 1964 "Determination of the water content of butteroil by the Karl Fisher method".

5.4 Determination of fat content: according to IDF Standard 24: 1964 "Determination of the fat content of butteroil".

**JOINT FAO/WHO FOOD STANDARDS PROGRAMME**

Joint FAO/WHO Committee of Government Experts  
on the Code of Principles concerning Milk and Milk Products  
Report of the 21st Session (Rome, 2-6 June 1986)

*Page 7 - Acceptance of International Individual Cheese Standards - Corrigendum to  
Acceptance of Norway*

| <i>NORWAY</i>   | <i>A CCEPTANCES (CODEX ALIMENTARIUS PROCEDURE)</i>     |
|-----------------|--|
| A-1             | Butter. Acceptance with specified deviation            |
| A-2             | Butter oil etc. Acceptance with specified deviation    |
| A-3             | Evaporated milk. (No position as yet)                  |
| A-4             | Condensed milk. (No position as yet)                   |
| A-5             | Milk powder. (No position as yet)                      |
| A-6             | Cheese. (No position as yet)                           |
| A-7             | Whey cheese. (No position as yet)                      |
| A-8 (a) (b) (c) | Processed cheese. (No position as yet)                 |
| A-9             | Cream. (No position as yet)                            |
| A-10            | Cream powder. (No position as yet)                     |
| A-11(a)(b)      | Yoghurt. (No position as yet)                          |
| A-12            | Edible acid casein. Free distribution                  |
| A-13            | Edible caseinate. Free distribution                    |
| C-1             | Cheddar. Acceptance with specified deviation           |
| C-2             | Danablu. Free distribution                             |
| C-3             | Danbo. Free distribution                               |
| C-4             | Edam. (No position as yet)                             |
| C-5             | Gouda. Free distribution                               |
| C-6             | Havarti. Free distribution                             |
| C-7             | Samsoe. Free distribution                              |
| C-8             | Cheshire. Free distribution                            |
| C-9             | Emmentaler. Free distribution with specified-cond.     |
| C-10            | Gruyere. Free distribution                             |
| C-11            | Tilsiter. Acceptance with specified deviation          |
| C-12            | Limburger. Free distribution with specified cond.      |
| C-13            | St. Paulin. (No position as yet)                       |
| C-14            | Svecia. Free distribution                              |
| C-15            | Provolone. Free distribution with specified cond.      |
| C-16            | Cottage cheese. Free distribution with specified cond. |
| C-17            | Butterkase. Free distribution with specified cond.     |
| C-18            | Coulommiers. Free distribution                         |
| C-19            | Gudbrandsdalsost. Full acceptance                      |
| C-20            | Harzer Käse. Free distribution with specified cond.    |
| C-21            | Herregårdsost. Free distribution                       |
| C-2 2           | Hushållsost. Free distribution                         |
| C-23            | Norvegia. Full acceptance                              |
| C-24            | Maribo. Free distribution                              |
| C-25            | Fynbo. Free distribution                               |
| C-26            | Esrom. Free distribution                               |

|      |   |
|------|---|
| C-27 | Romadur. Free distribution with specified cond. |
| C-28 | Amsterdam. Free distribution                    |
| C-29 | Leidse. Free distribution                       |
| C-30 | Friese. Free distribution                       |
| C-31 | Cream cheese. (No position as yet)              |
| C-32 | Blue-veined cheese. (No position as yet)        |
| C-33 | Camembert. (No position as yet)                 |
| C-34 | Brie. (No position as yet)                      |
| C-35 | Hard grating cheese. (No position as yet)       |