REPORT OF THE

FOURTH SESSION OF THE COMMITTEE OF GOVERNMENT EXPERTS ON THE CODE OF PRINCIPLES CONCERNING MILK AND MILK PRODUCTS

Held in Rome, Italy
6-10 March 1961

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Meeting Report
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Food and Agriculture Organization of the United Nations
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OFFICERS OF THE COMMITTEE AND SUB-COMMITTEES

The Committee elected the following officers:

CHAIRMAN: Mr. J. SERVAIS (Belgium)
VICE-CHAIRMAN: Mr. Nazir AIDED (Pakistan)

Sub-Committee A on Standards:

CHAIRMAN: Dr. H. H. BOYSEE (Federal German Republic)

Sub-Committee B on Methods of Sampling and Analysis:

CHAIRMAN: Dr. P. BORGEAUD (Switzerland)

SUMMARY OF DISCUSSIONS AND PROPOSALS OF THE COMMITTEE

1. At its Fourth Session in March 1961 the Committee considered replies received from the following 30 countries to the requests set out in paragraph 15 of the Report of its Third Meetings

Australia
Austria
Belgium
Cambodia
Ceylon
Denmark
El Salvador
Finland
France
Germany
Ireland
Japan
Malagasy Republic
Malaya
Netherlands
New Zealand
Nigeria
Norway
Pakistan
Poland
Rhodesia and Nyasaland
Spain
Sweden
Switzerland
Tunisia
Turkey
Union of South Africa
United Kingdom
United States of America
Viet-Nam

2. The Committee noted that acceptances of the Code of Principles had now also been received from the following countries:

Cambodia
El Salvador
Malagasy Republic
Malaya
Nigeria
Rhodesia and Nyasaland
Tunisia
Turkey
Union of South Africa

The Government of the United Kingdom also communicated acceptance by the Governments of the following territories:

Fiji
Hong Kong
Jamaica
Malta
Mauritius
Tanganyika
Zanzibar

The number of acceptances of the Code had thus risen to 44.

The Government of the United States of America indicated that sixteen States of the Union had accepted the Code and that there had been no negative replies. Full details of these new acceptances will be set out in the second edition of- the Code of Principles which will form a separate part of this Report.

3. At its Third Session the Committee considered the possibility of approaching the FAO Conference for a resolution recommending the widest possible application of the

Code. In view of the very successful start which the Code had now made the Committee agreed to request the Director-General to submit the following draft resolution to the Eleventh Session of the Conference, for adoptions

THE CONFERENCE

Recalling Resolution No. 16/57 which recommended the constitution of a committee of government experts to formulate designations, definitions and standards for milk and milk products to be set out in such manner as would enable governments to accept them without having recourse to Treaty procedure,

Notes with great satisfaction the large measure of success achieved by the Code of Principles concerning Milk and Milk Products (Published as Document 1961/3, Second edition, April 1961) drawn up by this Committee. and now accepted by 44 governments cut of 46 from which replies concerning application of the Code have so far been received, including the principal countries interested in international trade in milk products,

Congratulates the International Dairy Federation on the preparation of the draft texts on which the Code of Principles and its associated standards arc in large part based, and

Urges such member governments as have not accepted the Code of Principles to make full use of the simplified procedures of acceptance adopted by the Committee, so that the influence already exerted by the Code may be extended to the benefit of both consumers and producers in all countries.

4. In the Explanatory Note on the Code the Committee added a paragraph* under Article 1.2. The addition permits reconstituted and recombined milk to be designated as "milk" wherever national legislation specifically so provides, and is introduced to cover the special position in development countries. The Committee also added a paragraph* to the section covering Article 4 in order better to explain the implications of its previsions. This paragraph will he incorporated in the second edition of the Code. In this connection the Committee requested that Governments should be asked to indicate whether cases were known to them of the misuse of brand names and marks normally associated with mille products, and what powers they possessed to prevent such practices.

* The new final paragraph to the Explanatory Note on Article 1.2 will read "However, where specifically so foreseen under national legislation, wholly or partly reconstituted or recombined milk may be considered as standardised within the meaning of Article 1.2 and therefore may likewise be designated as "milk"."

* The new final paragraph to the Explanatory Note on Article 4 will read: "On the other hand the designations "filled milk", "filled cheese", etc, were held to be misleading within the meaning of Article 4. Their use was, therefore, incompatible with the Code."

5. At its Third Session (Report, paragraph 4) the Committee had requested the Secretariat to sollids supplementary information from participating countries as might appear necessary for submission to it. The Committee requested the Secretariat to continue solliciting such information and in particular to cover all countries in reply groups II and III. The Committee noted with appreciation that the Secretariat had made every effort to draw the attention of countries which had not yet accepted the Code to the advantages of so doing. The Secretariat was requested to continue its efforts to achieve unanimous acceptance of the Code. The Secretariat was also requested to distribute to all member countries any observations which might be received from them upon the application of the Code in practice. The question of the constitution of an

Advisory Group to survey and make recommendations on the application of the Code would be taken up at a later date when the Committee no longer needed to meet at annual sessions.

6. In setting up the present Committee, the Conference (Report IXth Session, paragraph 205) requested consultation to be maintained with other interested international organizations, in particular with the International Organization for Standardisation (ISO). The Committee noted that the terms of reference of the ISO committee involved (TC/34 SC/5) required it to undertake lis work "with the assent and the cooperation" of FAO. The Committee now considered a proposal by the Secretariat to define coordination between ISO and the International Dairy Federation (IDF) under the Code of Principles programme in the field of methods analysis for mill:: products. The Committee felt that IDF should continue to play the loading role in this work but that any arrangements which the Federation might make with ISO in order to utilize to the full the different membership of the two bodies and to avoid any duplication of effort would be welcomed. In particular the Committee urged that an appropriate contact be made with the Association of Official Agricultural Chemists (ACAC), USA. In this way it night be possible at a later stage for the Committee to take over and publish directly under the Code of Principles any such standards which had been approved jointly by IDF and ISO. If this stage were reached it would considerably relieve work by the Committee at the Government level.

7. The Committee noted that five further Governments had accepted Standard No. 1, Butter and Standard Ho, 2, Butterfat. Seven Governments had also indicated that they considered Standard No. 2 as I applicable also to ghee. Some twelve Governments also gave details of more rigorous national requirements concerning- these two standards as requested by the Committee at its last session. A number of Governments specifically indicated that their national requirements would be amended to conform with the FAO Standards. This information will be set out in the second edition of the Code of Principles.

8. The Committee noted that 19 Governments had accepted Standard No. 3, Evaporated Milk, and 20 Governments Standard No. 4, Sweetened Condensed Milk. In this way the standards could be considered as adopted and would be published in the second edition of the Code of Principles. The majority of these Governments also gave details of more stringent national requirements concerning these standards. In respect of these standards the Committee also decided to set out by means of a Decision (No. 5)* that these standards should apply to the products so defined irrespective of their method of production, i.e. they covered products made by means of reconstitution and recombination of milk.

* Decision No. 5 will reads "In respect of the communication by the Government of the Federation of Malaya that Standard No. 3, Evaporated Milk and Standard No. 4, Sweetened Condensed Milk, might not appear to cover these products when made by means of reconstitution or recombination of milk, the Committee decided that these standards should apply to the products so defined irrespective of the method of production." This addition will follow Decisions Nos. 1-4 set out on page 26 of the first edition of the Code of Principles.

9. At its Third Session (Report, paragraph 7) the Committee requested Governments to indicate whether questions of product grading should be included in its programme. The weight of opinion was that it was premature for the Committee to widen its work to cover grading at the present time, but that the International Dairy Federation (IDF) should be requested to consider the advisability of drawing up appropriate drafts for such aspects of grading as were susceptible of objective determination.

10. The Committee had received a statement by the President of the International Dairy Federation (IDF) giving details of the Federation's work on the preparation of basic standards for milk hygiene. The Committee noted the progress being made and requested a further statement to be made available at its next Session.

11. At its Third Session (Report, paragraphs 9 and 10) the Committee had drawn particular attention to the need for detailed comments from Governments on the provisional standards for dried milk. The Committee was glad to note that the good response which this request had received had enabled it to agree an a final draft (set out in Appendix A) which is now submitted to Governments for acceptance as Standard No. 5. The Committee wished to draw particular attention to the fact that the standards provided for the marketing of a 24% product designated as "dried milk" during an interim period ending on 1 January 1965 After that date, the product would need to he labelled as "partly skimmed dried milk".

12. In respect of the draft standards for dried milk, the delegate of Pakistan, supported in particular by the delegate of Spain, pointed out that a moisture content of 5% was on the high side especially for tropical countries where milk and milk products deteriorate quickly. He, therefore, suggested that it should be restricted to 3% maximum. The Committee, however, held the view that since the draft standards are minimum standards and are not intended to affect the adoption of more rigorous standards under domestic legislation, the draft standards need not be amended.

13. At its Third Session (Report, paragraph 12) the Committee had given preliminary attention to the following standards:

Standards for cheese

Standard method for the determination of acidity in butterfat

Standard method for the determination of the refractive index of butterfat

Standard method for the determination of the fat content of milk powder by the gravimetric method of Rose-Gottlieb

Standard method for the determination of the iodine value of butterfat according to Wijs

Standard method for the determination a. the fat content of cheese and processed cheese by the Schmid-Bondzynski-Ratzlaff method (S.B.R.)

The Committee considered each of these standards in detail and came to the conclusions set out in paragraphs 14, 15, 16 and 17 below.

14. In respect of the Draft Standards for Cheese, the Committee made a number of far reaching changes concerning the marking of fat content and prepared a revised tentative draft (set out in Appendix H together with an explanatory note prepared by the Secretariat) for submission to Governments for further comment. The Committee wished to draw the attention of Governments in particular to the need to comment in detail on the long term implications of the changes made. The Committee also requested that Governments supply a selection of standards applicable to their major cheese varieties in international trade, covering composition, varietal characteristics and other relevant factors. In providing this information. Governments should also indicate by what moans these standards are enforced and. if applicable, on what data the distinction is based between cheeses above and below 45% fat in the dry matter. The Committee requested the Secretariat to analysis the material received, as far as the means at its disposal allowed, and to submit the analysis together with the standards and other information

received to all member Governments for consideration at its next meeting. In this way the Committee hoped to have a clearer picture of the work involved in setting up individual international standards for the principal varieties of cheese.

15. In connection with the Draft Standards for Cheese, the Italian delegation made the following statements

> "For the reasons given below the Italian delegation cannot agree with any proposal which aims at making obligatory the marking of cheeses with their fat content in the dry matters
>
> a) The value of cheese as a food product does not depend upon the milk fat but rather on the protein and calcium salts which it contains. Moreover, the consumer buys cheese according to taste and not fat content.
>
> b) For the majority of consumers, declaration of the fat content in the dry matter of a cheese does not allow an effective appreciation of the quantity of fat, from the point of view of diet and calorie content, contained in different types of cheese. Such a declaration may easily mislead the consumer when not accompanied at the same time by an indication of the humidity content."

16. The Committee was able to revise and agree upon a final text of the Standard Methods of Sampling (set out in Appendix B) for submission to Governments for acceptance, as Standard No. 01. The Committee omitted the Supplement to the Methods, at the same time requesting the International D airy Federation (IDF) to elaborate a now text of the Supplement in the light of modern statistical methods and the comments already received from Governments. In order to allow the Federation to make its proposals in time for consideration at the Committees Fifth Session, the Secretariat was to the Federation as soon as possible. The Committee likewise requested the Federation to draw up and submit a draft text for the sampling of cheese.

17. The Committee also revised and agreed on a final text of the Standard for the Determination of the Fat Content of Milk Powder according to Röse-Gottlieb ("set out in Appendix C). The Committee took note: of the fact that the International Dairy Federation (IDF) was now working upon an enlarged standard for the Rose-Gottlieb method applicable to other milk products, and expressed the view that the enlarged standard should contain details of the "balance., extraction tubes or flasks, as well as an indication of- the possibility of using polyethylene stoppers for these tubes and flasks. The Committee felt, however, that the present text should already be submitted to Governments so that a method -of analysis for the fat content of dried milk under Standard No. 5 (see paragraph 11. above) could be made available forthwith. The Committee likewise revised and. adopted the following standards

> Standard method for the determination of the fat content of cheese according to Schmid-Bcndzynski-Ratzlaff
> (S.B.R.) (set out in Appendix 33)
>
> Standard method for the determination of acidity in butterfat
> (set out in Appendix E)
>
> Standard method for the determination of the refractive index of butterfat
> (set cut in Appendix F)
>
> Standard method for the determination of the iodine value of butterfat according to Wijs (set out in Appendix G)

The Committee wished nevertheless to state that its adoption of the standards set out in Appendices E, P and G did not of itself imply that the methods referred to were sufficiently effective to establish, the purity of butterfat and to discover any fraudulent practices to which it might have been exposed. The Committee nevertheless considered that these standards could be of service until such time as they could be replaced by more accurate methods. The five standards mentioned in this paragraph arc now submitted to Governments for acceptance as Standards Nos. 02 to 06 inclusive.

18. For consideration at a later session, the Committee requested the International Dairy Federation (IDF) to draw up draft standards for cream powder and cream cheese.

19. The Committee noted with regret that the response made to the various requests for information from Governments which had been made in the report of its Third Hooting had not always met with the success it had hoped. The Committee was unanimous in drawing the attention of all Government s to the fact that unless, full information was made available to it, its work must inevitably be. severely handicapped. It was also of the greatest importance that comments be received in sufficient time to allow their translation and distribution to all member countries well before the date of the session at which they were to be discussed, (see date lines in paragraph 21 below). Detailed comments produced at the last moment concerning, complicated drafts were of very limited value both, to the Committee and to the Government proposing them. Realizing that it was not always an easy matter for Governments to prepare and des patch such comments, the Committee believed that valuable time night be saved if Governments sent copies of their comments to each delegation attending the previous session, at the same time as they despatched them to the Secretariat. In this way delegates could inform themselves of Governments' comments before the official distribution of the translated versions through the Secretariat could be completed. The Committee proposed that this procedure be followed.

20. In the same way followed for the Report of its Third Session the Committee decided to present the present Report in two parts:

Part I contains:

a) Summary of discussions and list of participants.

b) The texts of standards adopted by the Committee and submitted to Governments for acceptance.

c) The texts of standards still under discussion and submitted to Governments for further comments.

Part II contains:

a) Text of the Code and Explanatory Note.

b) Status of acceptances of the Code

c) Text of standards finally adopted by the Committee, (Standards Bo. 1, Butter; No. 2, Butterfat; No. 3, Evaporated Milk; No. 4, Sweetened Condensed Milk).

d) Status of acceptances of these standards.

Part II of the present Report forms the Second Edition of the Code of Principles showing the position as at 1 April 1961.

Summary of Action Recommended

21. The Committee therefore requests the Director-General when submitting the present Report to all Member Governments to invite each Government:

a) to indicate whether cases are known of the misuse of brand names or marks normally associated with milk products, and what powers are possessed to prevent such practices (see paragraph 4);

b) to provide the Secretariat with a selection of standard- applicable to national major cheese varieties in international trade, to indicate by what means the standards are enforced and, if applicable, on "hat dates the distinction is based between cheeses above and below 45% fat in the dry matter (see paragraph 14);

c) to give earnest and sympathetic consideration to the application of the following standards

   i Standard No. 5, Dry Whole Milk, Partly Skimmed Dried Milk, Dried Skimmed Milk (see paragraphs 11 and 12 and Appendix A)

   ii Standard No. 01, Standard Methods of sampling Milk and Milk Products (see paragraph 16 and Appendix B)

   iii Standard No. 02, Standard Method: for the Determination of the Fat Content of Milk Powder according to Rose-Gottlieb (see paragraph 17 and Appendix C)

   iv Standard No. 03, Standard Method for the Determination of the Fat Content of Cheese according to Schmid-Bondzynski-Ratzlaff (S.B.R.) (see paragraph 17 and Appendix D)

   v Standard No. 04, Standard Method for the Determination of Acidity in Butterfat (see paragraph 17 and Appendix E)

   vi Standard No. 05, Standard Method for the Determination of the Refractive Index of Butterfat (see paragraph 17 and Appendix F)

   vii Standard No. 06, Standard Method for the Determination of the Iodine Value of Butter fact according to Wijs (see paragraph 17 and Appendix G);

d) to comment in detail upon the tentative draft Standards for Cheese (see paragraphs 14 and Appendix H) with particular attention to the long term implications of the proposed changes and in the light of the explanatory note prepared by the Secretariat which accompanies the draft;

e) to provide the Secretariat; if specifically so requested by individual letter, with supplementary information needed to complete details of the state of application of the Code in each country (see paragraph 5)

N.B. Requests a), b), c) and d) above apply to all Governments. Request e) applies only to those Governments to which a specific communication may be addressed at a later date.

Government should be invited to send their replies to the Director-General of FAO by 1 October 1961. Comments received after 15 January 1962 cannot be translated, analysed and distributed to all Member Governments in time for consideration at the next session of the Committee.

22. The Committee requests the Director-General to convene a fifth meeting of the Government Experts in the Spring of 1962. The Committee proposes to consider at that session inter alia the comments of Governments on the draft standards submitted with this Report, in addition to a number of draft methods of analysis which it expects will shortly be received from the International Dairy Federation (IDF) and the International Organization for Standardisation (ISO). In order to allow Governments as much time as possible for the preparatory work involved, the Director-General is further requested to allocate a high priority to the publication and distribution of the present Report in h the three working languages.

APPENDIX A

STANDARD ADOPTED BY THE COMMITTEE AND SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 5
FOR WHOLE MILK POWDER PARTLY SKIMMED MILK POWDER SKIMMED MILK POWDER

1. Definition:

   Powder obtained by the removal of water only from milk, partly skimmed milk or skimmed milk.

2. Permitted Additions:

   Harmless substances necessary for the manufacturing process

3. Designations and Standards:

   3.1 Whole milk powder
   Dried full cream milk
   Full cream milk powder
   Dry whole milk
   Milk powder
   Dried milk

   shall contain not less than 26$ of fat "by weight in the product and not more than 5% of water "by weight in the product.*

*Notes: For an interim period ending 1 January 1965, the product may, where in accordance with national legislation already existing on 10 March 1961, contain less than 26% but not less than 24% of fat by weight provided:
(a) The product is packed in units of not less than 25 kg.
(b) The product is designated exclusively as "milk powder" or "dried milk",
(c) The product is labelled "contains not less than 24% fat by weight".

   3.2 Partly skimmed milk powder
   Partly skimmed dried milk

   shall contain between 1.5% and 26% of fat "by weight in the product and not more than 5% of water by weight in the product. The fat percentage "by weight in the product shall "be declared.

   3.3 Nonfat dry milk
   Dried skimmed milk
   Skimmed milk powder

   shall contain not more than 1.5% of fat by weight in the product and not more than 5% of water by weight in the product.

APPENDIX B

STANDARD ADOPTED. BY THE COMMITTEE AND SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 01
STANDARD METHODS OF SAMPLING MILS AND MILK PRODUCTS

Foreword

These instructions are intended to provide "basic rules for commercial transactions in international trade. They are not intended to replace official methods of sampling and analysis prescribed "by national Food Legislation for the purpose of internal control.

A. GENERAL INSTRUCTIONS

1. Instructions of an administrative character"

1.1 Sampling shall he performed by a neutral sworn agent, or if not available by a neutral authorized agent, properly trained in the appropriate technique. The sampling agent shall be free from any infectious disease,

1.2 If possible, representatives of the parties concerned shall be given the opportunity to be present when sampling is performed.

1.3 Samples shall be accompanied by a report, signed, by the sworn or authorized sampling agent and countersigned by the witnesses if present. This report shall give particulars of the place, date and time of sampling, the name and designation of the sampling agent and of any witnesses, the precise method of sampling which is being followed if this deviates from the prescribed standard method, the nature and number of the units constituting the consignment together with, their batch code markings, where available, the number of samples duly identified as to the batches from which they wore drawn, and the place to which the samples have been sent. When appropriate the report shall also include any relevant conditions or circumstances, for example the condition of the packages and -their surroundings, temperature and humidity of the atmospere method of sterilization of the sampling equipment, whether a. preservative substance has been added to the sampler, and any other special information relating to the material being sampling

1.4 Each sample shall be sealed and labelled to give the nature of the product- the identification number and any code markings of the batch from which oho sample has boon taken, the date of sampling, and the name and signature or the sampling agent. In certain cases, for example the analysis of certain cheeses, the weight of the sample or of the unit from which it was taken should also be station!

1.5 All samples shall be taken at least in duplicate, one set being held if necessary in cold storage and put as soon as possible at the disposal of the second party. It is recommended that when previously agreed between the parties, a third set of samples be taken and retained for independent arbitration if necessary. The samples shall be dispatched immediately after sampling to the testing laboratory.

2. Technical instructions

2.1 Sampling equipment

2.1.1 Specifications s as laid down for each product to be sampled.

2.1.2 Sampling for chemical purposes: the sampling equipment and sample containers shall be dry and clean and shall not impart any odour or flavour if organoleptic examination is contemplated.

2.1.3 Sampling for bacteriological purposes or for organoleptic examinations all-sampling equipment shall be clean and shall not communicate any flavour or odour to the product and shall be treated by one of the following methods:

a) Exposure to hot air at 170ºC for two hours.

b) Exposure to steam at 120ºG (autoclave) for 15 minutes.

c) Exposure to steam at 100ºC for one hour. Such equipment must be used the same day.

d) Immersion in water at 100ºC for one minute. Such equipment must be used immediately.

e) Immersion in 70% alcohol and flaming to burn off the alcohol immediately before use.

The choice of the treatment will depend upon the nature, shape, and size of the equipment and upon the conditions of sampling. Sampling equipment, including sampling containers must be sterilized wherever possible by one of the methods a,) or b). Methods c), d) and e) should be regarded as secondary methods only.

2.2 Sample containers

2.2.1 For liquids

Containers shall be made of glass, stainless metal or plastics, of a quality suitable for sterilisation if necessary, and of a suitable shape and capacity for the material to be sampled (as defined in each particular case). Containers shall be hermetically closed cither by means of a rubber or plastic stopper or by a screw cap of metal or plastic having, if necessary, a liquid-tight plastic liner which is insoluble, non-absorbent, greaseproof, and which will not influence odour, flavour or composition of the milk and the milk products.

When rubber stoppers are used these shall be covered with a non-absorbent, flavourless material (such as a suitable plastic) before pressing into the sample container.

Suitable plastic bags may also be used.

2.2.2 For solids or semi-solids

Containers shall be wide mouth, cylindrical receptacles of glass or stainless metal or plastic material, suitable for sterilisation, if

necessary, and of a capacity suited to the size of the sample to be taken (as defined in each particular case). They shall be securely closed by one of the means defined above. Suitable plastic bags may also be used.

2.2.3 Small retail containers

The containers intact and unopen can be the samples.

2.3 Sampling Technique

The precise method of sampling, the weight or volume of product, and the number of units to be taken as a sample varies with the nature of the products and the purpose for which sampling is required, and is defined for each particular case.

2.4 Preservation of samples

2.4.1 When required for chemical analysis, a suitable preservative may be added to samples of liquid products. Such preservatives shall not interfere with the subsequent analysis and the nature and quantity of the addition shall be indicated on the label and in any report. Preservatives |, shall not be added to samples of semi-solid, solid or dried | products unless contrary provisions are made for such addition under C,D,E, etc. hereinafter and concerning various types of dairy products. Such samples shall be rapidly cooled and stored in a refrigerator at 0 to + 5ºC,

2.4.2 When required for bacteriological or organoleptic examination preservatives shall never be added to such samples. Instead, they shall be held at aglow temperature (0-5ºC) except in the case of conserved milk products when *; the sample comprises undamaged, unopened containers in which the product is sold. Liquid products and butter shall be maintained near the freezing point of water and bacteriological examination of liquid products shall be commenced as soon as possible and in no case later than twenty-fours after sampling

2.5 Transport of samples

Samples shall be transported to the laboratory as quickly as possible after sampling. Precautions shall be taken to prevent exposure during transit to direct sunlight and to temperatures below freezing point or to high temperatures which shall not exceed 10 C, in the case of perishable products. In the case of samples required for bacteriological examination, an insulated transport container capable of maintaining a low temperature (under 5 C) shall be used, except in the case of conserved milk products samples as undamaged, unopened containers, or in the case of very short journeys.

B. SAMPLING OF MILK AM) LIQUID MILK PRODUCTS EXCEPT EVAPORATED AND SWEETENED CONDENSED MILK

1. Sampling equipment

Plungers or agitators are necessary for mixing liquids in bulk. Plungers or agitators shall be of sufficient area to produce adequate disturbance of the

product, and sufficiently light in weight for the operator to be able to move them rapidly through the liquid. For mixing the contents of large vessels mechanical stirring is advisable.

Collect the sample by means of a dipper of suitable size. When the sample is required for bacteriological examination sterilize, the sampling equipment as prescribed uner A.2.1.3.

2. Mixing procedure

2.1 In all cases the liquid shall "be thoroughly mixed, for example by pouring from one vessel to another, by plunging or through mechanical stirring.

2.2 In the case of large containers agitation must be continued until the bulk is thoroughly mixed.

2.3 In the case of cream, perform plunging at least 10 times, the position of the submerged plunger being moved from place to place with special care to avoid whipping and churning.

2.4 Take the sample immediately after mixing.

C. SAMPLING OF CONDENSED MILK AND EVAPORATED MILK

1. Bulk containers (barrels, drums, etc.)

1.1 Sampling equipment

The most generally suitable sampling equipment is a broad-bladed metal stirrer fitted with a wide perforated disc at the bottom, and of sufficient length to reach the bottom of the container.

1.2 Sampling technique

The stirrer shall he used to mix the contents and to scrape. adhering material from the sides and bottom of the container. 2-3 litres of the well mixed contents shall be removed to a smaller receptacle, the stirring repeated, and a sample of at least 200 ml taken.

1.3 Sample jars shall be of large diameter and have airtight lids.

2. Small retail containers

2.1 The sample unit shall be one intact, unopened container, and, whenever possible, bear the manufacture code markings.

2.2 Treatment of samples

The container shall not be opened before analysis and shall be labelled with the date of sampling and a special mark of identification.

D. SAMPLING OF DRIED MILK AMD DRIED MILK PRODUCTS

1. In the case of bulk containers sampling for chemical analysis and organoleptic evaluation shall be performed independently of sampling for bacteriological examination from the same container.

2. Sampling for chemical analysis and organoleptic examination

2.1 Sampling equipment

Perform sampling with a suitable clean, dry borer tube or trier of stainless steel, aluminium, or aluminium alloy.

2.2 Sampling technique

The tube shall be passed. steadily through the powder at an even rate of penetration. When the tube reaches the bottom of the container it shall be withdrawn and the contents discharged immediately into the sample container. The powder shall not be touched with the fingers. One or more bores will be taken to make up a sample of 300 - 500 grams.

2.3 Sample containers

Samples shall be filled into clean, dry containers, air-tight and, if required for the examination, opaque. The sample container shall be of sufficient size to allow mixing by shaking.

2.4 In the case of gas packed dried milk the unopened original container shall be submitted as the sample if a gas analysis is required. Several containers (up to 4) may be required.

3. Sampling for bacteriological examination

3.1 Samples for bacteriological analysis shall be taken from the same package as those taken for chemical and organoleptic examination. The sample for bacteriological examination shall be taken first.

3.2 Sampling equipment

Take samples with a suitable stainless steel or aluminium spoon or trier, which, shall he sterile. Sterilize a supply of spoons or triers in a closed metal container in a hot air oven at 170 C for two hours. Alternatively immerse the spoon or trier in alcohol and flame to hum off the alcohol immediately before use.

3.3 Sampling technique

Using a sterile metal implement (for example a broadbladed knife or a spoon) remove the surface layer of powder from the sampling area, Next, using a sterile spoon or trier, take a sample of 50 - 200 grams, if possible from a point near the centre of the container. Place the sample as quickly as possible into the sample container, which shall be closed immediately observing aseptic precautions. In case of dispute concerning the bacteriological conditions of the top layer of the powder in the packing, it is advisable to take a special sample from this top layer.

3.4 Sample containers

Samples shall be filled into clean, dry, sterile containers, preferably brown if transparent, capable of air-tight closure.

E. SAMPLING OF BUTTER

1. Sampling equipment

Butter triers shall be made from stainless steel and shall be at least 17 mm. in diameter and of sufficient length to pass diagonally to the base of the container. Spatulas or knives used for removing portions of sample from the trier shall be made from stainless steel, Triers, spatulas, and knives shall be cleaned and dried before use and if sampling for bacteriological purposes is required, they shall be sterilized by treatment with alcohol followed by flaming or by immersion in water at 100ºC for at least one minute and cooled to room temperature immediately before use,

2. Sampling technique

a) Butter in bulk

Take two cores or more of butter so that the minimum weight of the total sample is not less than 200 grams. For butter in barrels one core is obtained by inserting the trier diagonally through the block of butter from the edge of the barrel. The others are drawn by inserting the trier from arbitrary points of the surface, vertically downwards to the bottom. For butter in cubes the cores are obtained by inserting the trier from top corners diagonally through the centre to the bottom. In both cases make one complete turn and withdraw the full core. Hold the point of the trier over the mouth of the sample container and immediately transfer the core of butter in about 75 mm sections working it from the trier by aid of a spatula fitted to groove. Leave plug of about 25 mm to place in hole from which core was removed. Do not include moisture adhering to outside of trier. Clean and dry the trier before each drawing. Soften butter frozen so hard as to resist trier by storage in tempering room 24 hours.

b) Butter in pats or rolls of small size

Units weighing 250 grams or over are divided in four and two opposite quarters are taken as samples. In sizes weighing less than 250 grams the whole unit is taken as a sample.

3. Sample container

Sample containers shall be wide-mouth jars conforming to A.2.2.2. The jar shall he at least half filled and hermetically sealed. Immediately after closure, jars containing butter shall "be wrapped in paper or stored in a dark place if the examination envisaged makes this necessary. The butter shall not come into contact with paper or any water or fat absorbing or trapping surface.

APPENDIX C

STANDARD ADOPTED BY THE COMMITTEE AND SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 02

STANDARD METHOD FOR THE DETERMINATION OF THE FAT CONTENT OF MILK POWDER ACCORDING TO ROSE-GOTTLIEB

I. Definition of the fat content

The fat content means the total content of fat and fatty substances, expressed in percent by weight, that is obtained when determining the fat content of normal milk powder by the Rose-Gottlieb method,

II. Analysis

1) Apparatus and utensils

1.1 Analytical balance, sensitivity .0.1 mg.

1.2 A centrifuge of appropriate type in which to place the extraction tubes or flasks, and in which a speed of 500-600 r.p.m, can he maintained.

1.3 Drying oven maintaining constant temperature up to 110 C, or vacuum drying oven.

1.4 Erlenmeyer or flat-bottomed flasks holding 150-250 ml, with provision for permanent or semi-permanent marking of the reference number of the sample.

1.5 Substance to facilitate boiling, free of fat, which does not disintegrate.

1.6 Suitable extraction tubes or flasks, with airtight cork or neoprene stoppers.

2) Reagents

2.1 Ammonia solution 25-30% clear, colourless.

2.2 Ethyl alcohol, 96 volume % (+ 1 vol. %),

2.3 Ethyl ether, boiling point 34º- 35ºC, free of peroxide.

2.4 Petroleum ether, boiling point 40º-60ºC.

Instead of pure alcohol, ethyl alcohol denatured with either methyl alcohol or benzene may also be used. The reagents used shall leave no residue after evaporation.

In order to control the reagents, a blank test corresponding exactly to the mode of operation, yet without milk powder, is to he carried out. The "blank value found must he taken into account in the final calculation of the analysis,

3) Preparation of the sample

It must he carefully avoided that moisture is absorbed during the preparations for analysis. Mix the milk powder "by transferring the sample

in a dry flask of a double volume, with stopper. Mix the contents carefully by shaking and turning upside down repeatedly. Open quickly and close immediately.

4) Mode of operation

4.1 Weigh accurately about 1 g. of whole milk powder, or 1.5 g. of skimmed milk powder into the extraction apparatus.

4.2 Add progressively 10 ml of warm water and shake while heating gently until the milk powder is completed dispersed,

4.3 Add 1.5 ml of ammonia solution while heating in a water hath to 60 - 70ºC and shake occasionally, in order to dissolve the proteins completely.

4.4 Cool and add 10 ml of ethyl alcohol, close the extraction apparatus with a moistened cork or a suitable stopper and mix the contents by shaking well.

4.5 Add 25 ml of ethyl other, close the extraction apparatus, then mix the contents by shaking vigorously and turning upside down repeatedly for one minute.

4.6 Add 25 ml of petroleum ether, close the extraction apparatus, mix the contents and shako for approximately one minute carefully in order to avoid the formation of emulsions. (When a centrifuge is available this precaution is not necessary.)

4.7 Let the extraction apparatus stand or centrifuge (for not, less than one minute at 500-600 r.p.m.) until such time as the ether-petroleum ether layer is practically clear and has entirely separated from the aqueous layer.

4.8 Transfer the ether - petroleum ether layer as completely as possible by decanting or by means of a pressure siphon (taking care, however, that no part of the aqueous layer is carried along) into an Erlenmeyer or flat-bottomed flask containing a substance which facilitates boiling. Then rinse the stopper of the extraction apparatus and the pressure siphon with a few millilitres of ethyl ether.

4.9 Repeat the extraction a second and third time, using each time 25 ml of ethyl ether and petroleum ether, following the procedure as indicated in 4.5 and 4.6, and transfer on each occasion- into the same flask the ether – petroleum ether layer as indicated in 4.7 and 4.8. In the case of the Mojonnier flask add alcohol for the second extraction and water for the third extraction to bring the aqueous solution to the correct level,

4.10 Carefully evaporate the solvents from the flask.

4.11 Dry the fat either in a vacuum drying oven for one hour at 70-75ºC (pressure less than 50mm Hg) or in a drying oven under normal pressure at 100-105ºC, The drying process can "be accelerated if the vapours remaining in the flask after evaporation of the

solvents are "blown off with a gentle current of air and if the flask is dried in a horizontal position.

4.12 Let the flask cool and weigh it as soon as it has reached the room temperature, using as counter weight a reference flask treated in an identical manner.

4.13 Continue the drying process with hourly weighings to constant weight or to a slight increase of weight. In the latter case, take the last value found before an increased weight as a basis for the calculation.

Eliminate the fat through three successive washings with petroleum ether using each time 5 ml. The purpose of this operation is to eliminate any error due to the entrainment of non fatty matters during extraction. Weigh the flask after elimination of the solvents according to 4.10 and 4.11. The weight of fat is the difference between the two weighings,

5) Accuracy of the method

The results of duplicate determination should not differ by more than 0.2 g fat for 100 g of the product.

APPENDIX D

STANDARD ADOPTED BY THE COMMITTEE AND SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 03

STANDARD METHOD FOR THE DETERMINATION OF THE FAT CONTENT OF CHEESE ACCORDING TO SCHMID-BONDZYNSKI-RATZIAFF (S.B.R.)

I. Definition of the fat content

The fat content means the total content of fat and fatty substances, expressed in per cent by weight, that is obtained by the Schmid-Bondzynski method.

II. Analysis

1) Apparatus, utensils and auxiliary agents

1.1 Analytical balance, sensitivity 0.1 mg.

1.2 A centrifuge of appropriate type in which to place the extraction tubes or flasks and in which a speed of 500-600 r.p.m. can be maintained.

1.3 Drying oven maintaining constant temperature up to 110ºC, or vacuum drying oven.

1.4 Erlenmeyer or flat-bottomed flasks holding 150 - 250 ml, with provision for permanent or semi-permanent marking of the reference number of the sample.

1.5 Water-bath with support.

1.6 Substance to facilitate boiling, free of fat, which does not disintegrate.

1.7 If considered desirable, foils of plastic material, unlacquered, soluble in hydrochloric acid, 0.03 - 0.05 mm thick, size about 500 x 7.5 cm. The foils of plastic material shall not affect the result of the analysis.

1.8 Suitable extraction apparatus (tubes or flasks) with airtight cork or neoprene stopper.

2) Reagents

2.1 Hydrochloric acid of about 25% (density 1.125/15ºC, if substantially higher concentrations are used reduce quantity indicated under 4.2 proportionally.)

2.2 Ethyl alcohol, 96 vol.% (plus/minus one vol. %),

2.3 Ethyl ether, boiling point 34-35ºC, free of peroxide.

2.4 Petroleum other, boiling point 40-60 C.

Instead of pure alcohol, ethyl alcohol denatured with either methyl alcohol or benzene may also "be used.

The reagents used shall leave no residue after evaporation.,

In order to control the reagents, a blank test shall be carried out in strict accordance with the mode of operation. The blank value found must be taken into account in the calculation of the result of the analysis.

3) Preparation of the sample

Prior to analysis, the rind or smear or mouldy surface layer of the cheese shall he removed so as to have a sample representative of the cheese such as it is usually consumed. The sample shall he ground by means of an appropriate device which should he easy to clean so that- there may he no possibility of mixture between one sample and another. The sample should then be thoroughly mixed and kept in an air-tight container until analysed, which operation should preferably be carried out on the same day. If delay is unavoidable all precautions should be taken to ensure proper conservation of the sample.

4) Mode of operation

4.1 Weigh accurately 3 g of the prepared cheese sample either in the extraction apparatus or in a beaker, or in 100 ml Erlenmeyer. The weighing can also be done on a plastic material sheet which is folded and introduced in the type of vessel selected.

4.2 Add 8 to 10 ml of hydrochloric acid (depending on the shape of the extraction apparatus) while gently moving the vessel in a boiling water-bath or over a flame, until the cheese is completely dissolved.

4.3 Let the vessel stand for 20 minutes in the boiling water-bath and then cool it in running water.

4.4 If the digestion of the cheese has been made in a vessel other than the extraction flask pour the contents of the vessel into the extraction flask.
Rinse it successively with 10 ml of ethyl alcohol, 25 ml of ethyl ether and 25 ml of petroleum ether, each time pouring the solvent into the extraction flask. After each addition - mix and shake as stated under 4.5 to 4.7.

4.5 If the digestion of the cheese has been made in the extraction flask add 10 ml of ethyl alcohol, close the extraction apparatus with a moistened cork or suitable stopper, and mix the contents carefully.

4.6 Add 25 ml of ethyl ether and close the extraction apparatus; then mix carefully the contents by shaking vigorously and turning upside down repeatedly for one minute.

4.7 Add 25 ml of petroleum ether, close the extraction apparatus, mix the contents and shake for approximately one minute carefully in order to avoid the formation of emulsions. (When a centrifuge is available this precaution is not necessary.)

4.8 Let the extraction apparatus stand or centrifuge (for not less then one minute at 500-600 r.p.m.) until such time as the ether-

petroleum ether layer is practically clear and has entirely separated from the aqueous layer,

4.9 Transfer the ether - petroleum ether layer as completely as possible by decanting or "by means of a pressure siphon (taking care, however, that no part of the aqueous layer is carried along) into an Erlenmeyer or flat-bottomed flask containing a substance which facilitates boiling. Then rinse the stopper of the extraction apparatus and the pressure siphon with a few millilitres of ethyl ether.

4.10 Repeat the extraction a second and third time, using each time 25 ml of ethyl ether and petroleum ether, following the procedure as indicated in 4.6 and 4.7, and transfer on each occasion into the same flask the ether - petroleum ether layer as indicated in 4.8 and 4.9. In the case of the Mojonnier flask add alcohol for the second extraction and water for the third extraction to bring the level of the aqueous solution to the correct level.

4.11 Carefully evaporate the solvents from the flask.

4.12 Dry the fat either in a vacuum drying oven for one hour at 70-75ºC (pressure less than 50 mm Hg) or in a drying oven under normal pressure at 100-105ºC. The drying process can be accelerated if the vapours remaining in the flask after evaporation of the solvents are blown off with a gentle current of air and if the flask is dried-in a horizontal position.

4.13 Let the flask cool and weigh it as soon as it has reached the room temperature, using as counter weight a reference flask treated in an identical manner.

4.14 Continue the drying process with hourly weighings to constant weight or to a slight increase of weight. In the latter case, take the last value found before and increased weight as a basis for the calculation.

Eliminate the fat through three successive washings with petroleum ether. The purpose of this operation is to eliminate any error due to the entrainment of non fatty matters during extraction. Weigh the flask. after elimination of the solvents according, to 4.11 and 4.12. The weight of fat is the difference between the two weighings.

5) Accuracy of the method

The results of duplicate determination should not differ by more than 0,2 g fat for 100 g of the product.

APPENDIX E

STANDARD ADOPTED BY THE COMMITTEE AND -SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 04

STANDARD METHOD FOR THE DETERMINATION OF ACIDITY IN BUTTERFAT

I. Definition of acidity

The acidity of butterfat is expressed in "degrees of acidity". The "degree of acidity" of butterfat means the number of millilitres of 1-normal alkali required to neutralize the free fatty acids in 100 g of butterfat prepared as under (3) "below.

II. Analysis

1) Apparatus and equipment

1.1 Balance, sensitivity 1 mg.

1.2 Erlenmeyer flasks of 200 ml capacity.

1.3 Calibrated burette with 0.1 ml graduation.

2) Reagents

2.1 Mixture of alcohol and ether neutralized immediately before use (equal parts of ethyl alcohol 95% and ethyl ether, neutral to phenolphthalein).

2.2 0.1 normal solution of NaOH or KOH.

2.3 Neutral alcohol solution of phenolphthalein, 1%.

3) Preparation of the sample

To extract the butterfat, melt the butter at 50-60ºC, let it stand some time in the dark, decant and filter through a dry filter adding, if necessary, anhydrous sodium sulphate. For the determination of the acidity, use the well mixed, melted and clarified butterfat.

4) Mode of operation

4.1 Weigh into the Erlenmeyer flask 5 "to 10 g to the nearest mg of the butterfat prepared according to (3) above. If necessary slightly soften the fat by heating.

4.2 Add 50 ml or more of the other-alcohol mixture and dissolve the butterfat.

4.3 Add l ml of. Phenolphthalein solution.

4.4 Titrate with 0.1 normal alkali to a pale pink colour persistent for about 5 seconds.

4.5 Calculate the degree of acidity from the following formula:

$$\text{Degree of acidity} = \frac{n \cdot 100}{p}$$

p = the weight of butterfat in g.

n = the quantity of alkali used, expressed as ml 1-normal solution.

5) Accuracy of the method

The maximum deviation between parallel determinations should not exceed 0.2 degree of acidity.

APPENDIX F

STANDARD ADOPTED BY THE COMMITTEE AND SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 05

STANDARD METHOD FOR THE DETERMINATION OF THE REFRACTIVE INDEX OF BUTTERFAT

I. Definition of the refractive index

The refractive index of butterfat means the quotient of the sine of the angle of incidence and the sine of the angle of refraction of light of defined wave length (D-line of spectrum, sodium light).

II. Analysis

1) Apparatus and utensils

1.1 Refractometer permitting an estimation to the- 5th decimal place with a thermostat providing temperature control of the fat to plus/minus 0.1ºC.

1.2 Sodium light; a source of white light can also he used if the refractometer has an achromatic compensating device.

2) Preparation of the sample

To extract the butterfat, melt the "butter at 50-60ºC, if necessary let it stand for a short time in the dark, decant and filter through a dry filter adding, if necessary, anhydrous sodium sulphate. For the determination of the refractive index, use the melted and clarified "butterfat properly mixed and free from water.

3) Mode of operation

In order to obtain comparable values, ensure that the temperature is constant and that the butterfat is free from water and any possible impurities. Always indicate the refractive index for the D-line of sodium light. When using light of other wave lengths this should be indicated.

Always refer to refractive index of butterfat to the standard temperature of 40.0ºC,

Carry out the determination with the fat at a temperature of 40 plus/minus 1ºC.

3.1 Arrange the refractometer and the heating device and refractometer according, to the directions for use of the apparatus,

3.2 Place the butterfat prepared as under (2) between the prisms of the refractometer in such a way that it. fills entirely the space between the prisms,

3.3 Wait until the temperature is constant and read the scale position of the boundary between the dark and illuminated fields.

4) Accuracy of the method

Maximum difference between parallel determinations should not exceed 0.0002 unit of the refractive index.

APPENDIX G

STANDARD ADOPTED BY THE COMMITTEE AND SUBMITTED TO GOVERNMENTS FOR ACCEPTANCE

STANDARD No. 06
STANDARD METHOD FOR THE DETERMINATION OF THE IODINE VALUE OF BUTTER FAT ACCORDING TO WIJS

I. Definition of the iodine value

Iodine value is the number of grams of iodine absorbed by 100 grams of the substance,

II. Analysis

1) Apparatus and glassware

1.1 Analytical balance, sensitivity 0.1 mg.

1.2 Erlenmeyer flask with ground glass stopper, capacity 300-500 ml.

1.3 Burettes, graduated to 0.1 ml, inspected and approved.

1.4 Burettes or pipettes 25 ml content for rapid delivery.

2) Reagents

2.1 Wijs' reagent

2.2 Carbon tetrachloride (GCl_4), inert to Wijs solution.

2.3 Potassium iodide solution, 10%, free from iodine and iodates.

2.4 Sodium thiosulphate solution 0.1 N.

2.5 Starch solution.

Preparation of the Wijs reagent and of the starch solution

Wijs' reagent: Dissolve approximately 9 g of iodine trichloride in 1000 ml of a mixture of 700 ml concentrated acetic acid (99-100%) and 300 ml carbon tetrachloride, both free from oxidisable matter.

Determine the halogen concentration in the following ways Run 5 ml of the solution from a burette into a flask, add 5 ml of the 10% potassium iodide solution and 30 ml of water, and titrate with 0.1 N sodium thiosulphate using a starch solution as indicator. Add the starch solution shortly before the end of titration.

After the determination of the halogen content of the iodine trichloride solution add 10 g of iodine powder and swirl until so much of the iodine has dissolved that the halogen content, determined as above, has increased to considerably-more than 1.5 times the original value. Filter or decant the clear solution and dilute it with a mixture of acetic acid and carbon tetrachloride, so that 5 ml of the solution are equivalent to 10 ml of the 0.1 H sodium thiosulphate solution. Keep the solution in the dark in a tightly closed stoppered bottle of brown glass.

Starch solution: Mix 5 g of soluble starch and 10 mg of mercuric iodide in 30 ml water, add this mixture to 1000 ml of boiling water and leave boiling for 3 minutes.

3) Preparation of the sample

To obtain a sample of butter fat, melt the butter at 50 to 60ºC leave standing in the dark for some time, decant and filter through a dry filter, adding, if necessary, anhydrous sodium sulphate. For the determination of the iodine value use the melted, clear, filtered and well mixed butter fat,

4) Mode of operation (work in diffused light)

4.1 Weigh accurately 0.40 to 0.45 g of the clear butter fat in a clean dried Erlenmeyer flask.

4.2 Dissolve the fat in 15 ml of carbon tetrachloride and add by means of a burette or a pipette with a rapid delivery exactly 25 ml of the Wijs' reagent.

4.3 Close the flask with its stopper, mix carefully and leave it standing for one hour in the dark at a temperature of 20 plus/minus 5ºC.

4.4 Then, add 20 ml potassium iodide solution and approximately 150 ml of distilled water, and mix.

4.5 Titrate with 0,1 N sodium thiosulphate solution (use as indicator 2 ml of starch solution), swirling the liquid constantly. Add the starch solution shortly before the end of the titration.

4.6 Carry out a blank test, using the same quantities of the reagents and under the same conditions of temperature.

4.7 Calculate the iodine value by means of the following formula:

$$\text{Iodine value} = 1.269 \frac{a - b}{p}$$

where:

a = number of ml of 0.1 H sodium thiosulphate used in the blank test;

b = number of ml of 0.1 N sodium thiosulphate used when testing butter fat;

p = weight of butterfat taken for the analysis.

5) Accuracy of the method

The results of duplicate determination should not differ by more than 0.4.

APPENDIX H - (i)

TENTATIVE DRAFT STANDARDS FOR CHEESE

1. Cheese

1.1 Definition - "Cheese" is the fresh or matured product obtained by draining after coagulation of milk, cream, skimmed or partly skimmed milk, buttermilk or a combination there

1.2 Cheese designations - The terms used to designate the variety of cheeses shall only be applied to those products which conform to the definition of cheese given in paragraph 1.1 and which possess the characteristics normally associated with that Variety,

1.3 Additions - The following substances may be added, provided that such substances are not intended to take the place of any milk constituent:

a) harmless substances which are necessary for the manufacturing process.

b) natural flavouring substances not deriving from milk such as spices, in such quantity that they can be considered only as flavouring substances, provided that the cheese remains the major constituent and that the addition is declared in the designation of the product (e.g. cheese with celery, etc.), unless the presence of spices is a traditional characteristic of the cheese.

1.4 Marking and labelling - In accordance with Article 5 of the Code of Principles all cheeses shall be marked with their minimum fat content and producing country, whenever the consumer could otherwise be mislead. Subject ¡to these requirements, the following provisions shall apply:

1.4.1 Cheese containing less than 45 per cent fat:
Where a cheese contains less than 45% fat in the dry matter, the guaranteed minimum fat content shall be marked upon all original cheeses, or where not practicable on all original packs, and on all prepared consumer packs.

1.4.2 Cheese containing 45 per cent fat or more:
Where a cheese contains 45% or more fat in the dry matter, it may be marked with the minimum fat content. Where the designation "full fat cheese" is already in use for cheese with 45% or more fat in the dry matter, its use may be continued, provided it conforms with the provisions of the Code of Principles.

1.4.3 Cheeses subject to composition standards:
The provisions of para 1.4.1 shall, however, not ho obligatory in respect of cheeses covered by international composition standards set up under the Code of Principles. Until such standards have been elaborated, chesses covered by existing national legislation, fixing. in particular their minimum fat content and maximum moisture content, shall not be subject to the compulsory declaration required by para 1.4.1. *

* The Danish delegation put forward the following alternative version of para 1.4.3:
"The provisions of para 1,4.1 are not obligatory for internal trade in respect of cheeses covered by national legislation which:
(a) is already in existence on 10 March 1961,
(b) fixes their minimum fat and maximum moisture contents, and
(c) does not prescribe or prohibits the marking of their minimum fat content in the dry matter."

1.4.4 General requirements:
Subject to para 1.4.3 the fat content of cheese shall he expressed as a percentage of the dry master. The marking of fat content upon the original cheeses, original packs and prepared consumers packs shall he made in distinct and legible figures.

1.4.5 Additional requirements for export:
The cheese or its package as well as commercial document referring thereto shall bear) the name of the producing country and an identification of the manufacturer or exporter in plain Or in code.

2. Whey Cheese

2.1 Definition - Whey cheese is the product obtained by concentration or coagulation of whey, with or without addition of milk and milk fat.

2.2 Export-Standards:

2.2.1 The standard for the content of "whey cheese" is the percentage fat content in the dry matter.

2.2.2 Full fat whey cheese: The minimum percentage fat in the dry matter in full fat whey cheese shall he 33%.

2.3 Marking and labelling:

2.3.1 The "whey cheese" or "whey cheese packs" shall hear the designation "whey cheese", the name of the producing country and the minimum fat content.

2.3. The marking of fat percentage in the dry matter and the designation "whey cheese" shall be made in distinct and legible figures and letters.

APPENDIX H - (ii)

TENTATIVE DRAFT STANDARDS FOR CHEESE

Explanatory Note by the Secretariat

1. Introduction

In view of the short time for discussion available to the Committee and the far-reaching nature of the proposals contained in the tentative draft standards for cheese, the Secretariat was requested to provide an explanatory note to accompany the text of the draft. It was also hoped that the note might ho of some interest to governments which were unable to send delegates to the*-Fourth Session of the Committee.

2. Reasoning behind the draft

The main changes concern the marking of fat content (para 1.4 of the draft standards) and are due primarily to throe considerations. Firstly, it was suggested that the marking of fat as a percentage of the dry matter could he misleading, for instance when comparing an apparently high figure shown for a moist cheese with a low figure for dry cheese, since the latter might well have a higher fat content in the total product than the former. Secondly, by marking fat content alone, emphasis was given to a single -in many national diets less essential - milk constituent to the exclusion of others more important. Thirdly, in certain countries standardisation of a product, by its very logic some considered, made declaration of individual constituents unnecessary since composition of the product was unique and fixed.

3. These considerations led to a proposal to envisage the establishment under the Code of individual international standards of composition, marking and labelling for the main cheese varieties in international trade. By this means it was hoped that these difficulties could be overcome, if only by the substitution of others of a different nature, The proposal also found some support among those who sought to protect traditional choose designations, as well as among others, who found the 45% fat dividing line unrealistic and its would-be synonym "full-fat" misleading, given the general rise in the fat content of milk in recent years.

4. On the other hand, counter-arguments wore net lacking. The main objections were as follows. Firstly, fat was economically the most important constituent of choose, the price-determining element. If fat marking in international trade wore not obligatory even where only a national standard forbade it, * a price-war with corresponding confusion to the consumer might ensue. Moreover, it was implied that such a ruling might put an end, with serious results, to the successful marketing of surplus butter fat in the form of high fat content cheese. Secondly, the protection of existing cheese designations, some held, might he compared to the protection of old-age pensioners (without the advantage of the moral compulsion usually involved) in view of present-day trends on the cheese market. In addition, the setting up of the individual international standards involved was a formidable task as experience had shown. Thirdly, if the expression "full-fat", meaning 45% fat in the dry matter, were technically misleading, it was inevitably an approximation, and since many markets were accustomed to it, it still provided a useful and long-established yard-stick.

* he Danish counter-proposal for para 1.4.3 (shown in a foot note to the text of the draft) aims at overcoming this difficulty.

5. Text of the draft

Born as it is of conflicting reasons, the draft of para 1.4 clearly reflects its origin. It is, however, intended only as a skeleton standard, a policy statement, submitted tentatively to governments for detailed consideration and in no way as a final standard for acceptance. It is of value as a vehicle for the ideas outlined above and not for the form or expression they take.

6. Para 1.4 is set out as follows: The introductory phrase beneath the sub-title governs para 1.4.1 to 1.4.5 inclusive. This phrase states the general rule that wherever confusion to the consumer might otherwise arise, cheese shall be marked with its fat content and country of origin. This is merely an application of Art, 5 of the Code to which it refers. Its use lies in the fact that it implies that consumer confusion might arise in certain cases where either or both these declarations were omitted. An obvious example of the first would be of a cheese marketed with alternative fat levels, and of the second of a cheese whose designation was usually associated by the consumer with a certain country or area of production, but which did not come from that area,

7. Para 1.4.1 illustrates the general rule as to fat "by requiring fat declaration when under 45% in the dry matter. In other words, in such a case lack of declaration may be presumed to confuse the consumer. Para 1.4.2 covers the opposite case of a cheese of over 45%. Here no fat declaration is required, but the cheese may he termed "full-fat", subject to certain conditions. Cheeses over 45% are therefore considered by the draft to be normal as to fat content, no special declaration being required.

8. Para 1.4.3 provides two exceptions to para 1.4.1. Firstly, in respect of cheeses for which international standards of composition will have been set up under the Code, and secondly, as a transitional situation, in respect of cheeses for which there are existing national standards of composition specifying at least fat and moisture content. The logic is clear, the expression is not. Suppose a single international standard for, say, Emmenthal has been set up. There will now he no danger of confusion between one Emmenthal and another since all will conform to the one standard. Declarations of content become less important. (Should the housewife of course still wish to know the principal constituents of Emmenthal she presumably hap to remember to slip her copy of the latest edition of the Code of Principles into her shopping bag!) The transitional situation is, however, clearly too vague as it stands, since there may well be differing standards in different countries for the same cheese. Fat declaration for export would seem here essential. The exception might also be narrowed to those national standards which in fact conflict with para 1.4.1. On the other hand, para 1.4.3 should logically be widened to exclude the permissive provisions of 1.4.2, wherever the individual standards (either international or national) are incompatible with them

Conclusions

9. The Committee's draft aims at providing general umbrella provisions applicable to all types of cheese, subject to individual international standards for the main traditional varieties to he set up in future under the Code. These standards would cover composition, marking and labelling for each such variety separately. Acceptance of the umbrella provisions would not imply acceptance of all or any of the individual standards, each of which would require separate acceptance. As a transitional measure, the draft provides for a very broad exception to the umbrella provisions in favour of cheeses governed by existing national composition standards.

10. At its next Session the Committee has proposed to consider the principal national standards for export cheeses (see para 14 of the Committee's present Report), with a view to estimating the problems involved in drawing up appropriate international standards. For this purpose, it is felt the Committee will wish to give itself power to decide which cheeses should be covered by international standards. Experience would also show that these standards must be closely defined if increased confusion to the consumer is to be avoided. Tightening of the transitional provisions has already been suggested in para 8 of this note above.

11. It is hoped that rough justice has been done to the logic of the draft and to the various conflicting arguments behind it. In addition, both the standard for choose and that for whey choose might benefit from editorial attention, a point not dealt with here. The views expressed in this note are solely those of the Secretariat and do not involve the responsibility of the Committee in any way.

The following reports of earlier meetings in this series have been issued:

Report of the Meeting of Government Experts on the Use of Designations, Definitions and Standards for Milk and Milk Products, Rome, Italy, 8-12 September 1958. In English, French and Spanish (Meeting Report No. 1958/15).

Report of the Second Meeting of Government Experts on the Use of Designations, Definitions and Standards for Milk and Milk Products, Rome, Italy, 13-17 April 1959. In English, French and Spanish (Meeting Report No. 1959/AN-2).

Report of the Third Meeting of Government Experts on the Use of Designations, Definitions and Standards for Milk and Milk Products, Rome, Italy, 22-26 February 1960. In English, French and Spanish (Meeting Report No. AN 1960/2).

Code of Principles concerning Milk and Milk Products and Associated Standards, First Edition, 1 March 1960.