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COMMITTEE

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O. Eng.

Brussels, 16 October 2000.

CLASSIFICATION OF "HIGH FAT CREAM CHEESE"

(RESERVATION BY AUSTRALIA)

(Item VII.5 on Agenda)

Reference documents :

41.475 (HSC/20)	42.850, Annex A/13 (SSC/14 - Report)
41.600, Annex G/23 (HSC/20 – Report)	NC0027E1 (HSC/23)
42.040 (HSC/21)	NC0086E1 (HSC/23)
42.056 (HSC/21)	NC0090E2, Annex E/1 (HSC/23 – Report)
42.113 (HSC/21)	NC0129E1 (HSC/24)
42.100, Annex H/1 (HSC/21 – Report)	NC0154E1 (HSC/24)
42.438 (HSC/22)	NC0160E2, Annex G/10 (HSC/24 – Report)
42.727 (HSC/22)	NS0002E1 (SSC/15)
42.750, Annex G/12 (HSC/22 – Report)	NS0014E2, Annex A/1 (SSC/15 – Report)
42.805 (SSC/14)	NC0181E/1, paragraphs 2 to 7 (HSC/25)
42.827 (SSC/14)	NC0248E1 (HSC/25)
42.828 (SSC/14)	NC0250E2, Annex H/10 (HSC/25 – Report)
	NC0287E1

I. BACKGROUND

1. After the preparation of Doc. NC0287E1, the Secretariat received, on 28 September 2000, the following additional Note from the Australian Administration.

II. ADDITIONAL NOTE FROM AUSTRALIA

“BACKGROUND INFORMATION

CHEESE DEFINITIONS

2. The FAO/WHO Codex Alimentarius Commission's standard A-6 defines cheese as follows:

File No. 2701

“Cheese is the ripened or unripened soft or semi-hard, hard or extra hard product, which may be coated, and in which the whey protein/casein ratio does not exceed that of milk, obtained by:

- a) *coagulating wholly or partly the protein of milk, skimmed milk, partly skimmed milk, cream, whey cream or buttermilk, or any combination of these materials, through the action of rennet or other suitable coagulating agents, and by partially draining the whey resulting from such coagulation; and/or*
- b) *processing techniques involving coagulation of the protein of milk and/or products obtained from milk which give an end product with similar physical chemical and organoleptic characteristics as the product defined under (a).”*

3. In establishing standards, descriptions, regulations and provisions for various products, Codex searches the literature and calls for comment from interested bodies, institutions and individuals. Codex's research is exhaustive and its summations are always made on objective and definite grounds.

4. The product described as “high fat cream cheese” refers to a number of varieties of cheese, including cream cheese known to be manufactured in Australia, Hungary, Netherlands, Italy, Japan and other places. It could also refer to Mascarpone, Neufchatel or other fresh cheese varieties. These cheeses comply with the Codex provisions.

ISSUES RAISED IN WCO DISCUSSIONS ON HIGH FAT CREAM CHEESE

5. Although all cream cheese manufactured in and exported from Australia meets the Codex description of cheese, there have been requests for clarification on classification by the WCO. The following addresses issues which have been raised at various WCO meetings since 1997.

(i) Method of Manufacture

As with other varieties of cream cheese, high fat cream cheese may be manufactured using a range of techniques. However, all these techniques involve coagulation of milk or milk products and the removal of whey, as required by the Codex cheese definition. In typical manufacture of this product in Australia, the following principles apply:

- manufacture from milk or milk products
- coagulation and separation of whey facilitating a concentration of milk solids
- the final product may be solid or semi-solid.

(ii) pH

It has been contended that some products should not be considered as cheese because of the relatively neutral pH. Fermentation is not necessarily an integral part of cheese making, as “coagulation” can be achieved in many ways besides by the production of lactic acid by lactic bacteria. Codex provisions do not mention pH levels as they are not necessary considerations in describing cheese.

The authoritative publication *Cheese and Fermented Milk Foods* (Professor Frank Kosikowski, Cornell University, Ithaca, New York, Third Edition, 1997) surveys 144 world cheeses. Amongst these, 12 (8 %) are above pH 6.9, including 8 (6 %) which are

actually above pH 7. Further, 21 % of the cheeses surveyed fall within the range pH 6.0 to 6.5, and another 16% between pH 6.5 and 7. In all, 42 % recorded levels of pH 6 or greater.

(iii) Fat

Codex makes no mention of fat maxima, only of minimum levels in some specified varieties of cheese. Cheese with high fat content is quite common. The product under discussion falls within the Codex requirement.

(iv) Protein

In high fat products, the protein levels will by definition be very low. In making high fat cheeses, it is necessary to start with a relatively high fat cream input which will have lower protein levels than standard milk. When this is concentrated by the removal of most of the proteins, through a wheying-off process, the end product must necessarily have a lower protein level.

Codex does not attempt to classify product according to protein levels. The only mention of protein in the Codex definition is a ratio between whey protein and casein. There is no mention of quantitative requirements for protein, either maximum or minimum. High fat cream cheese does, however, meet the Codex requirement that the whey protein/casein ratio does not exceed that of milk.

(v) Moisture

No minimum levels are listed for actual mass percentages for moisture. As such, these products are cream cheese under the Codex provisions.

(vi) Physical State

In terms of its physical state, high fat cream cheese exhibits “essential physical, chemical and organoleptic characteristics” consistent with cheese.

Unlike dairy spreads, which are in the form of an emulsion of the type water-in-oil, four physical states (collusion, suspension, solution and emulsion) occur within cheese, including the products under discussion. Often, the four states are variable within the same product according to possible lack of total homogeneity within the body and texture of the cheese.

The physical state of the Australian product high fat cream cheese is achieved in a manner consistent with the Codex requirement for coagulation. It should be noted in this regard that coagulation is entirely different from churning, which is the technique used to manufacture butter. Churning is a working process specifically designed to break the relationship between fat and protein portions. It dissociates fat and protein to release fat which aggregates to form a continuous fat phase. This does not occur in the production of high fat cream cheese.

(vii) Shelf Life and Storage

Codex does not attempt to set shelf life and storage conditions for cheese. This is appropriate because the specifications will vary considerably between cheese varieties. For cream cheese, mascarpone, cottage and others which are described as 'fresh', there is likely to be microbiological activity that will change the physical characteristics of the cheese. The manufacturers of these cheeses will, therefore, generally recommend a relatively short shelf life and suggest that the product be kept chilled in order to extend the shelf life.

In some cases, it may be necessary to freeze the product to maintain its freshness for shipment over long distances. While butter and dairy spreads should be stored in a cool environment, it is only when it is to be stored for long periods of time that it becomes necessary to freeze it. It is unusual for dairy spreads or butter to deteriorate significantly due to microbiological spoilage, as is the case with fresh cheeses.

(viii) Colour

Codex does not define the colour of cheese - it would be inappropriate given the wide variety of product available. However, cream cheese usually has a white to light cream colour. This is in contrast to butter and dairy spreads which are generally a darker shade of yellow.

(ix) Permitted Additives

Cream cheese and dairy spreads differ in the lists of additives which are allowed. While it may be possible to test for some of these additives to exclude product from one category or the other, none of the additives are required and as such can not be used to define either cream cheese or dairy spreads.

(x) Functionality

Cream cheese varieties are primarily used :

- in confectionery manufacture, especially as a component for chocolate centres & other items;
- for processing into processed cheeses;
- in bakery products, as providers of the milk component in bread;
- in ice cream, as providers of fat, protein, carbohydrate and flavour;
- as major components in the manufacture of fermented spreads;
- as the basis of many dips and sauces;
- as a functional ingredient in cooking;
- in desserts like Tiramisu.

All of the above listed uses are quite normal for cream cheese. High fat cream cheeses are also used for these purposes, and the fact that cream or butter may, at times, be substituted is purely coincidental. It is more likely that cream and butter would be used as inferior, cheaper substitutes for cream cheese where possible, and not the other way around. In fact, in most instances, cream cheese varieties are the more expensive ingredients (while being functionally superior). Very little cream cheese is consumed direct (as may be the case with hard rather than semi-soft cheese varieties). It is the

overall functionality of high fat cream cheese which makes it such a versatile source of components for a wide range of end usages.

CONCLUSION

6. The product described as “high fat cream cheese” is cheese. It falls legitimately within Codex's description of cheese, which is in HS heading 04.06.
7. If this product was to be re-classified on the basis of pH, fat, protein content, physical state or its functionality, then many other traditional cheese varieties would also face re-classification. This would be unacceptable to cheese manufacturers and end users around the world.
8. The product is not a dairy spread because it:
 - is manufactured using cheese-making processes (not churning and the addition of water like dairy spreads);
 - has an elevated level of solids non fat (greater than 2 %); and
 - is not a water-in-oil type emulsion (it tends to be phase variable).
9. The product under discussion is a variety of cheese which complies with the Codex provisions and as such should continue to fall under HS heading 04.06.”

III. CONCLUSION

10. The Committee is invited to take account of the above additional Note from the Australian Administration when it examines this Agenda item.
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